Equation™ 2 1x1

LED

FOCAL POINT®

opal acrylic lens

MicroGlow lens

DIMENSIONAL DATA

5.27"
133.9mm

12.14"
308.4mm

2 LED boards
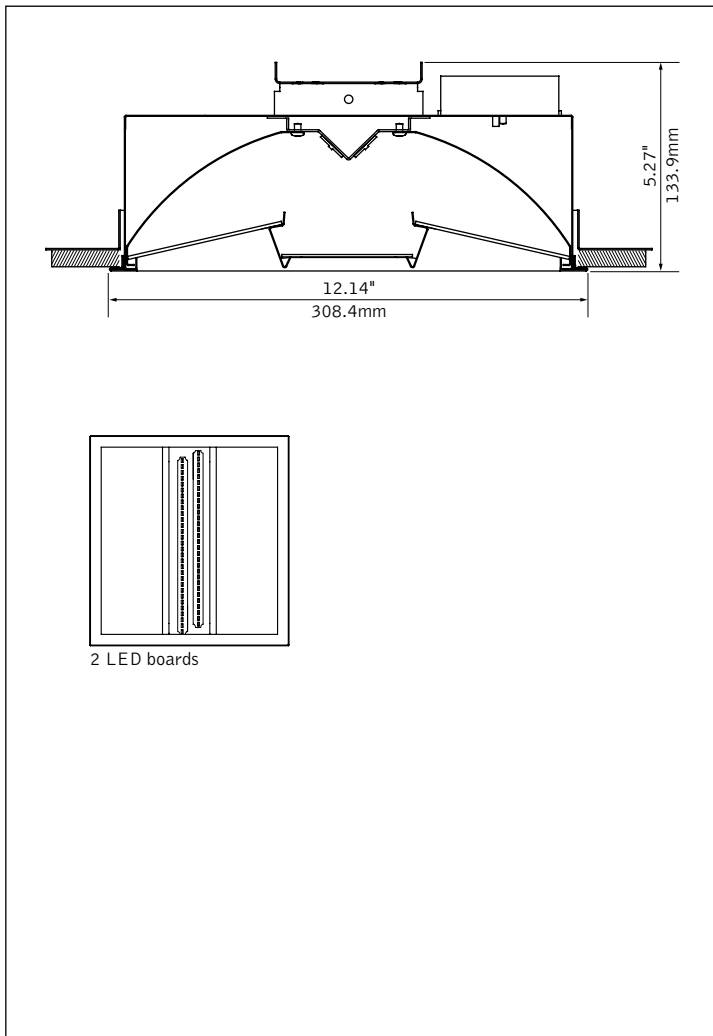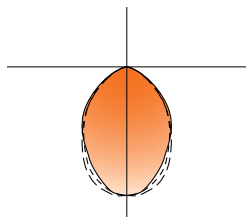
FEATURES

Equation™ 2 blends sleek aesthetics with uniform diffuse illumination.

Center diffuser features MicroGlow prismatic lens for brightness control and visual comfort. Opal acrylic center lens may also be specified.

Premium LEDs operate efficiently on a robust module platform to achieve excellent thermal management and reliable operation.

PERFORMANCE

Opal Acrylic Lens

Delivered Lumens: 1000lm

Total System Watts: 12W

PRODUCT OVERVIEW

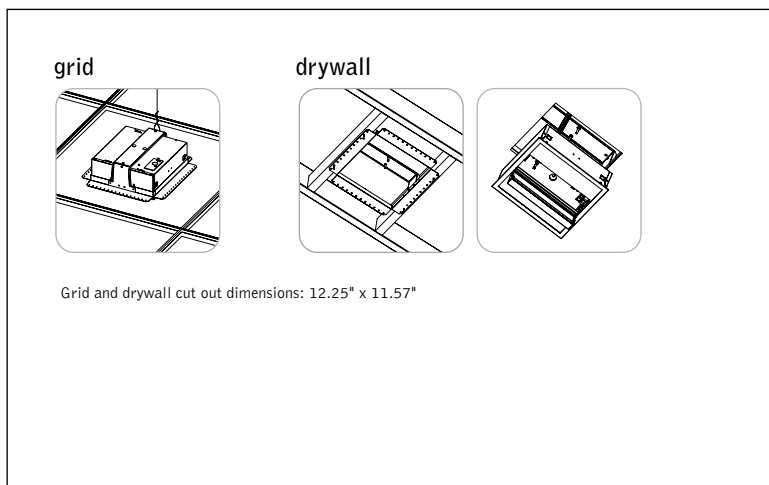|	
Lumen Output:	1000-1500lm
Wattage:	12-19W
LPW:	79-83
SDCM:	3

Photometric performance is measured in accordance with IESNA LM-79.
Visit focalpointlights.com for complete photometric data.

DETAILS

grid   drywall

Grid and drywall cut out dimensions: 12.25" x 11.57"

SPECIFICATIONS

LED System
Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 2700K, 3000K, 3500K or 4000K with CRI>80 or CRI>90, 3SDCM. Contact factory for additional color temperature and CRI options. LED modules and drivers are replaceable from below.

Construction
One-piece 24 Ga. steel housing. Two-piece 24 Ga. steel reflectors. 24 Ga. steel ends form finishing housing. Housing ships with universal 24 Ga. galvanized steel mounting yoke for grid or drywall ceiling. Weight: 9 lbs.

Optic
24 Ga. steel reflectors finished in matte satin white powder coat. .080" thick frosted white acrylic diffusers. Center shielding options include .080" thick opal acrylic lens or MicroGlow prismatic lens with optical filter overlay.

Electrical
Standard 120-277V driver includes 0-10V analog dimming. Power factor > .9. Optional DALI or Lutron EcoSystem drivers available.

Labels
UL and cUL listed. Suitable for Dry or Damp Locations, indoor use only.

Finish
Polyester powder coat applied over a multi-stage pre–treatment.

Lumen Maintenance
Reported: L80 at 60,000 hours
(Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.)

Reliability
At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty
LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

PERFORMANCE CHART

Delivered Lumens	Tested System Watts	LPW
1000	12	83
1500	19	79

Based on 3500K, 80 CRI. Lumen multipliers: Preferred Light = 0.65, 90+ CRI = 0.87.
Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.

ORDERING

Luminaire Series		**FEQ2**
Equation 2	FEQ2	
Nominal Size		**11**
1' x 1'	11	
Shielding		_____
Opal Acrylic Lens	AC	
MicroGlow Prismatic Lens	MG	
Lumen Output		_____
1000 Lumens	1000L	
1500 Lumens	1500L	
Color Temperature		_____
2700K, 80+ CRI **or** 90+ CRI	27K **or** 927K	
3000K, 80+ CRI **or** 90+ CRI	30K **or** 930K	
3500K, 80+ CRI **or** 90+ CRI	35K **or** 935K	
4000K, 80+ CRI **or** 90+ CRI	40K **or** 940K	
Circuits		**1C**
Single Circuit	1C	
Voltage		**UNV**
UNV 120/277 Volt	UNV	
Control System & Dimming Level		_____
0-10V - 10% Dimming	LD1	
0-10V - 1% Dimming	L11	
DALI - 1% Dimming	D11	
Mounting		__U__
Universal	U	
Factory Options		
Chicago Plenum	CP	_____
6' New York City Flex Whip (120V)	FNY1	_____
6' New York City Flex Whip (277V)	FNY2	
6' Flex Whip	FW	_____
(Sensor options available—consult factory)		
Finish		__WH__
Matte White Housing	WH	

Amica™ 2 1x4

LED

FOCAL POINT®
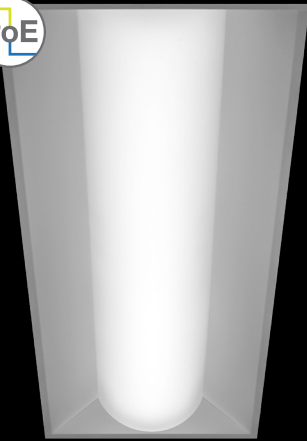
lens detail
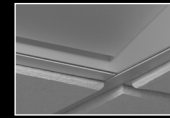
air return

DIMENSIONAL DATA

3.92"
99.6mm

12.00"
304.8mm
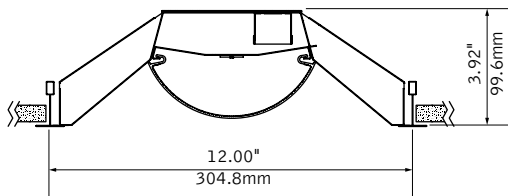
led options
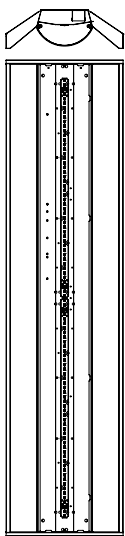
Standard
(1 LED Board)
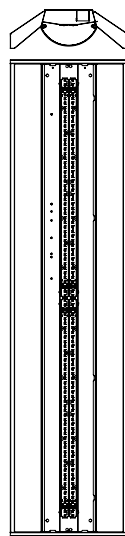
High Efficiency
(2 LED Boards)

FEATURES

Architectural recessed LED luminaire with classic lines to complement architecture.

Center ribbed diffuser masks LED brightness to create even illumination.

3.9" housing depth ideal for shallow plenum applications.

Access from below the ceiling for easy maintenance.

Connected Solutions: Integrates with wired and wireless building control systems.

PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

PERFORMANCE
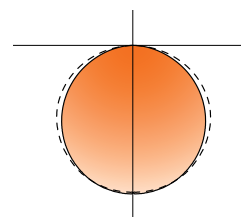
PRODUCT OVERVIEW

Lumen Output:	4000-8000lm
Wattage:	30-63
LPW:	124-134
SDCM:	3

High Performance
4000 Lumens (4000LH)

Delivered Lumens: 4000lm

Total System Watts: 30W

Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data.

fixture: _____ project: _____

MOUNTING INFORMATION

grid

9/16" tee   15/16" tee

slot tee

drywall frame kit

specify "F" Drywall Frame Kit for drywall ceiling conditions.

Use tie-wire or screws to secure frame kit.

Cut out dimensions:
1': Min: 12.25"
      Max: 12.56"
4': Min: 48.25"
      Max: 48.56"

SPECIFICATIONS

LED System

LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 3000K, 3500K or 4000K with CRI>80, 3 SDCM. LED modules and drivers are replaceable from below.

Construction

One piece 24 Ga. steel reflector and housing. Bottom access 24 Ga. steel driver compartment. Top access plate for electrical connection. Positional brackets supplied as standard.
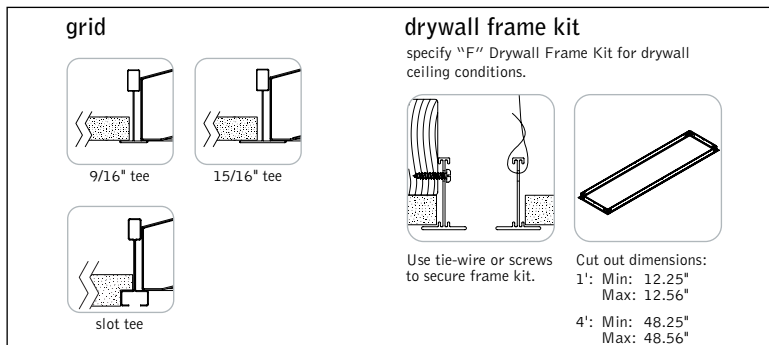Unit weight: 11.7 lbs.

Optic

24 Ga. steel reflectors finished in matte satin white powder coat. .084" thick frosted white acrylic diffuser with linear micro–prism pattern.

Electrical

Standard 120-277V driver includes 0-10V analog dimming. Power factor > .9. LD1 not Right Light as standard, consult factory. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

Emergency

Emergency battery output—10 watts for 90 minutes. Maximum mounting height: 19.9ft Emergency Circuit with Connected Solutions (DLM1, LMFS1, LMFSD, NLT1, ENL1, CLM1, NXE1, WLXP) requires a UL924 compliant device, consult factory.

Labels

UL and cUL Listed. Suitable for Dry or Damp Locations, indoor use only.

Finish

Polyester powder coat applied over a multi-stage pre–treatment. Optional Anti-Microbial paint finish available.

Lumen Maintenance

Reported: L70 at > 60,000 hours   Calculated: L70 at 150,000 hours
                 L80 at > 60,000 hours   L80 at 94,000 hours
(Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.)

Reliability

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5 year limited warranty.

PERFORMANCE CHART

Delivered Lumens	Tested System Watts	LPW
4000 Lumens	4000L — 32	124
	4000LH — 30	134
4500 Lumens	4500L — 37	122
	4500LH — 34	133
5000 Lumens	5000L — 38	130
	5000LH — 38	134
5500 Lumens	5500L — 42	129
	5500LH — 41	133
6000 Lumens	6000L — 46	128
	6000LH — 44	133
6500 Lumens	6500L — 51	127
	6500LH — 49	133
7000 Lumens	7000L — 57	123
	7000LH — 55	128
7500 Lumens	7500L — 60	125
	7500LH — 58	129
8000 Lumens	8000LH — 63	128

Lumen Multipliers		
CCT	CRI	Multiplier
3000K	80	0.81
	90	0.93
3500K	80	1.00
	90	0.96
4000K	80	0.85
	90	0.98

Based on 3500K, 80 CRI. *Lumen output may vary +/- 8%. Actual wattage may vary +/- 5%

Focal Point LLC reserves the right to change specifications for product improvement without notification.

ORDERING

Luminaire Series   **FAM2**

Amica 2   FAM2
Nominal Size   **14**

1' x 4'   14
Shielding   **ACR**

Ribbed Acrylic Diffuser   ACR
Lumen Output   _____

Standard (2 LED Boards)

4000 Lumens	4000L
4500 Lumens	4500L
5000 Lumens	5000L
5500 Lumens	5500L
6000 Lumens	6000L
6500 Lumens	6500L
7000 Lumens	7000L
7500 Lumens	7500L

High Efficiency (4 LED Boards)

4000 Lumens	4000LH
4500 Lumens	4500LH
5000 Lumens	5000LH
5500 Lumens	5500LH
6000 Lumens	6000LH
6500 Lumens	6500LH
7000 Lumens	7000LH
7500 Lumens	7500LH
8000 Lumens	8000LH

Color Temperature   _____

3000K, 80+ CRI **or** 90+ CRI   30K or 930K
3500K, 80+ CRI **or** 90+ CRI   35K or 935K
4000K, 80+ CRI **or** 90+ CRI   40K or 940K

Circuit   **1C**

Single Circuit   1C
Voltage   _____

120/277 UNV Volt   UNV
347 Volt   347
(LD1, CLM1 only. Not available with EM.)
Low Voltage   LV

Control System & Dimming Level   _____

0-10V - 10% Dimming   LD1
(Not Right Light as standard, consult factory)
0-10V - 1% Dimming   L11
Low Voltage, PoE compatible   LVN
(No driver. Not available with EM. LV Voltage only.)
Lutron Hi-Lume EcoSystem (LDE1) -   LH1
1% Dimming (Not available with 7500L or 8000LH.)
DALI - 1% Dimming   D11
Step Dimming   SD5
Wattstopper DLM - 1% Dimming   DLM1
Wattstopper Fixture Sensor   LMFS1
Low Density – 1% Dimming
Wattstopper Fixture Sensor   LMFSD
High Density – 1% Dimming
Acuity nLight® - 1% Dimming   NLT1
(Not available with CP.)
Enlighted Smart Sensor - 1% Dimming   ENL1
Encelium CLM Connected Lighting Module   CLM1
- 1% Dimming
Current NX Enabled – 1% Dimming)   NXE1
WaveLinx Pro – 1% Dimming   WLXP

Mounting   _____

Grid   G
Drywall Frame Kit   F
(Not available with DLM1, CLM1, NXE1 or NLT1)
(Cut out dimensions: Min: 12.25"/Max: 12.56"
Min: 48.25"/Max: 48.56")
Surface Mount   SM
(Not available with DLM1, CLM1, NXE1 or NLT1)
24" Aircraft Cable   C24
48" Aircraft Cable   C48
96" Aircraft Cable   C96

Factory Options

Air Return   AR
(Overall height for luminaire with Air Return is 4.4")
Chicago Plenum   CP
(Not available with flex whip)
Emergency Battery   EM
with Integral Test Switch

6' New York City Flex Whip (120V)   FNY1   _____

6' New York City Flex Whip (277V)   FNY2   _____

6' Flex Whip   FW   _____
Finish   _____

Matte Satin White   WH
Matte Satin White Anti–Microbial   WHA

QS **5/10 DAY**   Options in orange qualify for the Quickship program. 5-day up to 100 pieces, 10-day up to 300 pieces. Refer to Quickship Guide for complete details.

CONNECTED® SOLUTIONS

Focal Point provides flexibility in meeting the needs of each project by integrating with several building lighting control systems. A variety of sensors, drivers and other components can be specified that allow the luminaires to communicate with wired and wireless networks. All zoning can be digitally reconfigured through the application software. Daylight harvesting, occupancy sensing, integration with HVAC systems, and individual controls enable the monitoring and modulating of light levels and temperature in order to save energy, reduce costs and maximize occupants' comfort. All Connected Solutions luminaires require a compatible building control system.†
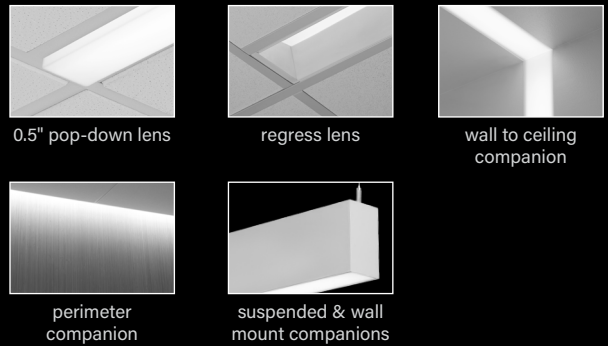
Connected Solution		Ordering Code	Model #**	Protocol	Compatible Networks*	Occupancy & Daylight	Temperature Reporting	Communication to Luminaire	Drivers
legrand® WATTSTOPPER®		DLM1	LMFC-011	DLM	DLM	Enabled	No	Wired	**Advance by Signify**, Optotronic by eldoLED
		LMFS1	LMFS-601 & LMFI-111	DLM Wireless	DLM	Enabled	No	Wireless	**Advance by Signify**
		LMFSD	LMFS-601						**Optotronic by eldoLED (Dexal)**
COOPER Lighting Solutions		WLXP	OEM-WAA	WaveLinx Wireless	WaveLinx Pro Trellix	Enabled	No	Wireless (WaveLinx Pro Wireless Area Controller)	**Advance by Signify**
CRESTRON		D11	Specified Driver	DALI	Crestron Zūm Wireless & SpaceBuilder	Enabled	No	Wired	**eldoLED ECOdrive**
		L11		0-10V					**Advance by Signify**
ENCELIUM		CLM1	ZBHA-CLM-DIM-ENC	ZigBee	Encelium X Light Management System	Enabled	No	Wireless	**Optotronic by eldoLED** Advance by Signify
Enlighted		ENL1	SU-5E-IOT	Enlighted RF	Enlighted	Integrated	Yes	Wireless	**Advance by Signify**
LUTRON		LH1	LDE1	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	No	Wired	**Lutron Hi-Lume**
nLIGHT		NLT1	nEPS-60-IO	nLight	nLight	Enabled	No	Wired	**eldoLED ECOdrive**, eldoLED SOLOdrive
NX LIGHTING CONTROLS™		NXE1	NXFM-LV	NX	NX Distributed Intelligence	Enabled	No	Wired	**Optotronic by eldoLED**

*Not all compatible networks may be listed. **For performance data and additional control system details please visit the connected solutions manufacturer websites. Primary drivers are listed in **bold.** To specify a particular driver please consult factory.
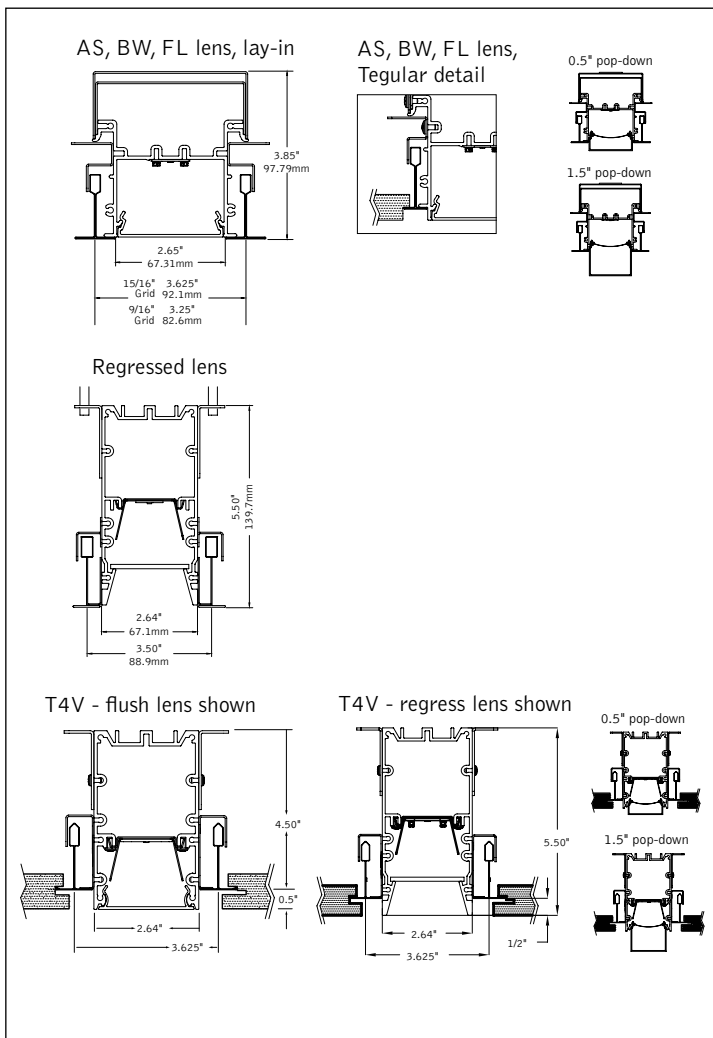†Controls systems supplied by others.

Seem® 2 Grid Ceiling
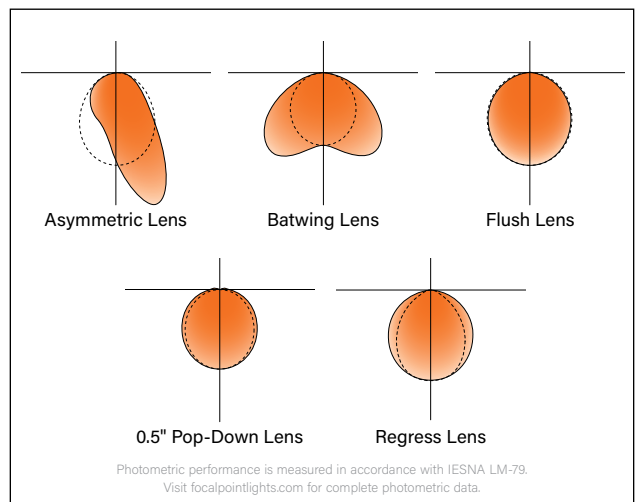
LED

Type B

FOCAL POINT®

0.5" pop-down lens	regress lens	wall to ceiling companion
perimeter companion	suspended & wall mount companions	

DIMENSIONAL DATA

AS, BW, FL lens, lay-in
3.85" / 97.79mm
2.65" / 67.31mm
15/16" Grid / 3.625" 92.1mm
9/16" Grid / 3.25" 82.6mm

AS, BW, FL lens, Tegular detail
0.5" pop-down
1.5" pop-down

Regressed lens
5.50" / 139.7mm
2.64" / 67.1mm
3.50" / 88.9mm

T4V - flush lens shown
4.50"
0.5"
2.64"
3.625"

T4V - regress lens shown
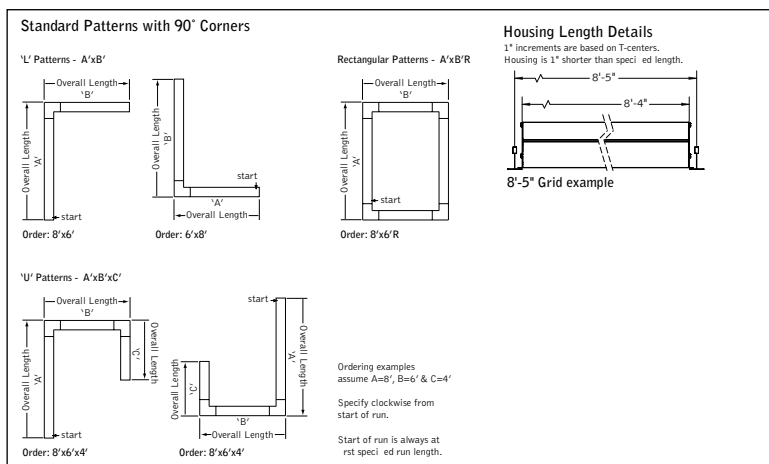5.50"
2.64"
3.625"
1/2"
0.5" pop-down
1.5" pop-down

FEATURES

Narrow extruded aluminum 2.5" aperture recessed slot LED.

Individual units and continuous runs in 1" increments.

Frosted acrylic lens provides uninterrupted illumination, without pixels or shadows.

LED position and lens material optimized to provide the perfect blend of high performance and visual comfort.

Connected Solutions: Integrates with wired and wireless building lighting control systems.

Preferred Light: Lighting for better color rendition and human preference.

PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

DISTRIBUTIONS

Asymmetric Lens

Batwing Lens

Flush Lens

0.5" Pop-Down Lens

Regress Lens

Photometric performance is measured in accordance with IESNA LM-79.
Visit focalpointlights.com for complete photometric data.

DETAILS

Standard Patterns with 90° Corners

'L' Patterns - A'xB'

Order: 8'x6'   Order: 6'x8'

Rectangular Patterns - A'xB'R

Order: 8'x6'R

Housing Length Details
1" increments are based on T-centers.
Housing is 1" shorter than specified length.

8'-5"
8'-4"

8'-5" Grid example

'U' Patterns - A'xB'xC'

Order: 8'x6'x4'   Order: 8'x6'x4'

Ordering examples assume A=8', B=6' & C=4'

Specify clockwise from start of run.

Start of run is always at first specified run length.

SPECIFICATIONS

LED System
Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 2700K, 3000K, 3500K or 4000K with CRI>80 or CRI>90, 3 SDCM. 3500K and 4000K with CRI>90 have a cyanosis observation index (COI) of 3.3 or less. Non-Regress housing LED modules are replaceable from below, driver access above ceiling. Regress housing LED modules and drivers are replaceable from below.

Construction
One piece extruded aluminum housing. 20 Ga. steel end caps. Steel driver compartment. Flush lens weights: 4' unit: 12.18 lbs., 8' unit: 21.34 lbs. Regress lens weights: 4' unit: 10.1 lbs., 8' unit: 20.2 lbs.

Optic
Extruded acrylic lens .060" thick with satin finish, up to 8' continuous. Regress lens .118" thick acrylic lay-in lens and 22 Ga. reflector finished in high reflectance white powder coat.

Electrical
Luminaires are pre–wired with factory installed branch circuit wiring and quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Power factor > .9. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires. PoE runs require an independent PoE node and power feed for each luminaire section.

Emergency
Emergency Battery output - 10 watts for 90 minutes. Maximum mounting height: 19.3ft (FL), 15.6ft (PD05). Emergency Circuit with Connected Solutions (DLM1, LMFS1, LMFSD, NLT1, ENL1, CLM1, NXE1, WLXP) shipped standard with leads to connect UL924 compliant device, by others.

Labels
UL and cUL listed. Suitable for Dry or Damp Locations, indoor use only.

Finish
Polyester powder coat applied over a multi-stage pre–treatment.

Lumen Maintenance
Reported: L70 at >61,000 hours   Calculated: L70 at 480,000 hours
          L90 at >61,000 hours   L90 at 130,000 hours
(Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.)

Reliability
At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty
LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

4' PERFORMANCE CHART
See page 3.

QS 10 DAY Options in orange qualify for the Quickship program. 1000' total, 48' maximum per pattern section. Refer to Quickship Guide for complete details including EM/EC options.

ORDERING

		FSM2L
Luminaire Series		_____
Seem 2 LED Grid	FSM2L	
Shielding		_____
Asymmetric Lens	AS	
Batwing Lens	BW	
Flush Lens	FL	
0.5" Pop-Down Lens	PD05	
1.5" Pop-Down Lens (Individual units only)	PD15	
Regress Lens (Housing height 5.5". Ceiling applications only)	SR	
Regress High Performance Lens (Housing height 5.5". Ceiling applications only)	SRXP	
Lumen Output		_____
125 Lumens per foot (LD1 & L11 only. 4' minimum. Not available on patterns.)	125LF	
250 Lumens per foot (3' minimum with LH1. Not available on patterns with LH1.)	250LF	
375 Lumens per foot	375LF	
500 Lumens per foot	500LF	
625 Lumens per foot	625LF	
750 Lumens per foot*	750LF	
875 Lumens per foot*	875LF	
1000 Lumens per foot*	1000LF	
*Not available with SR, SRXP shielding		
Color Temperature		_____
2700K, 80+ CRI **or** 90+ CRI	27K **or** 927K	
3000K, 80+ CRI **or** 90+ CRI	30K **or** 930K	
3500K, 80+ CRI **or** 90+ CRI	35K **or** 935K	
4000K, 80+ CRI **or** 90+ CRI	40K **or** 940K	
3500K, Preferred Light (AS, BW & FL shielding only. 6" increments. Not available with Emergency Battery or patterns.)	P35K	
Circuits & Zones		_____
1 Circuit, non-emergency	1C	
Consult Ordering Guide on page 5 for multiple circuiting and zoning options	_C_Z_DL	
Voltage		_____
120/277 UNV Volt	UNV	
347 Volt (LD1 & L11 driver only.)	347	
Low Voltage	LV	
Control System & Dimming Level		_____
0-10V - 10% Dimming	LD1	
0-10V - 1% Dimming	L11	
Low Voltage, PoE compatible (No driver. Not available with EM or EC. LV Voltage only.)	LVN	
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1	
DALI 1% Dimming	D11	
Wattstopper DLM - 1% Dimming** (Not available with CP)	DLM1	
Wattstopper Fixture Sensor**[1] Low Density – 1% Dimming See sensor layout guide	LMFS1	
Wattstopper Fixture Sensor**[1] High Density – 1% Dimming See sensor layout guide	LMFSD	
Acuity nLight - 1% Dimming** (Not available with CP.)	NLT1	
Enlighted Smart Sensor - 1% Dimming**[1] See sensor layout guide	ENL1	
Encelium CLM Connected Lighting Module -** 1% Dimming	CLM1	
Current NX Enabled – 1% Dimming** (Not available with CP.)	NXE1	
WaveLinx Pro – 1% Dimming**[1] See sensor layout guide	WLXP	
**(3' minimum length, with ECD/EM - 7' minimum.) [1] (Not available with pop-down lenses.)		
Ceiling Configuration		_____
Std. 15/16" Lay-in (G1) **or** Tegular (T1)	G1 **or** T1	
Std. 9/16" Lay-in (G2) **or** Tegular (T2)	G2 **or** T2	
9/16" Slot-tee Tegular	G3	
Tall 15/16" Lay-in (G4) **or** Tegular (T4)	G4 **or** T4	
Tall 15/16" Tegular for specialty ceilings (0.5" drop)	T4V	
Tall 9/16" Lay-in (G5) **or** Tegular (T5)	G5 **or** T5	
Node 9/16" Tegular	T6	
Factory Options (See Ordering Guide for ordering details for DC, EC, EM, & ECD.)		
Chicago Plenum (Not available with Flex Whip)	CP	
Daylight Circuit	_DC	_____
Emergency Circuit	_EC	_____
Emergency Battery Pack†	_EM	_____
Emergency Control Device†	_ECD	_____
†(4' minimum, 6' minimum with patterns. 120/277 Volt only. Not available at corners. .)		
6' New York City Flex Whip (120V)	FNY1	_____
6' New York City Flex Whip (277V)	FNY2	
6' Flex Whip	FW	
Finish		WH
Matte White Housing	WH	
Luminaire Length		ft in
Specify luminaire/row length in 1" increments (2' minimum, lengths are nominal 1" increments based on T-centers. Housing length is 1" shorter than specified. Leave blank for patterns. Smaller increments available, consult factory.)	_ft _in	
Pattern Options (4' minimum length)		_____
'L' pattern	A' x B'	
'U' pattern	A' x B' x C'	
Rectangular pattern (Consult factory for other pattern options)	A' x B' R	

4' PERFORMANCE CHART

Lumen Output	Delivered Lumens	Tested System Watts	Lumens Per Watt (LPW)				
			AS	BW	FL	PD05	PD15
125LF	500	5	108	103	99	95	97
250LF	1000	9	108	103	99	95	97
375LF	1500	13	118	113	108	105	106
500LF	2000	18	120	115	110	106	108
625LF	2500	23	116	111	107	103	105
750LF	3000	28	116	111	106	103	104
875LF	3500	32	115	110	106	102	104
1000LF	4000	39	113	107	102	99	100

Based on 3500K, 4' length. Lumen multipliers: Preferred Light = 0.65, 90 CRI = 0.87.
Delivered lumens may vary +/- 5%. Actual wattage may vary +/- 5%

4' PERFORMANCE CHART - REGRESS LENS

Lumen Output	Delivered Lumens	SR		SRXP	
		Tested System Watts	LPW	Tested System Watts	LPW
125LF	500	7	72	6	84
250LF	1000	16	72	13	83
375LF	1500	26	71	19	84
500LF	2000	34	72	26	83
625LF	2500	43	72	33	83

Based on 3500K, 4' length. Lumen multipliers: Preferred Light = 0.65, 90 CRI = 0.87.
Delivered lumens may vary +/- 5%. Actual wattage may vary +/- 5%

Seem® 2 Grid Ceiling
LED

Focal Point provides flexibility in meeting the needs of each project by integrating with several building lighting control systems. A variety of sensors, drivers and other components can be specified that allow the luminaires to communicate with wired and wireless networks. All zoning can be digitally reconfigured through the application software. Daylight harvesting, occupancy sensing, integration with HVAC systems, and individual controls enable the monitoring and modulating of light levels and temperature in order to save energy, reduce costs and maximize occupants' comfort. All Connected Solutions luminaires require a compatible building control system.†

Connected Solution		Ordering Code	Model #**	Protocol	Compatible Networks*	Occupancy & Daylight	Temperature Reporting	Communication to Luminaire	Drivers
legrand® WATTSTOPPER®		DLM1	LMFC-011	DLM	DLM	Enabled	No	Wired	**Advance by Signify**, Optotronic by eldoLED
		LMFS1	LMFS-601 & LMFI-111	DLM Wireless	DLM	Enabled	No	Wireless	**Advance by Signify**
		LMFSD	LMFS-601						**Optotronic by eldoLED** (Dexal)
COOPER Lighting Solutions		WLXP	OEM-WAA	WaveLinx Wireless	WaveLinx Pro Trellix	Enabled	No	Wireless (WaveLinx Pro Wireless Area Controller)	**Advance by Signify**
CRESTRON		D11	Specified Driver	DALI	Crestron Zūm Wireless & SpaceBuilder	Enabled	No	Wired	**eldoLED ECOdrive**
		L11		0-10V					**Advance by Signify**
ENCELIUM	CLM1 adds 0.78" to overall height.	CLM1	ZBHA-CLM-DIM-ENC	ZigBee	Encelium X Light Management System	Enabled	No	Wireless	**Optotronic by eldoLED** Advance by Signify
Enlighted		ENL1	SU-5E-IOT	Enlighted RF	Enlighted	Integrated	Yes	Wireless	**Advance by Signify**
LUTRON		LH1	LDE1	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	No	Wired	**Lutron Hi-Lume**
nLIGHT	NLT1 adds 1.00" to overall height.	NLT1	nEPS-60-IO	nLight	nLight	Enabled	No	Wired	**eldoLED ECOdrive**, eldoLED SOLOdrive
NX LIGHTING CONTROLS™	NXE1 adds 1.00" to overall height.	NXE1	NXFM-LV	NX	NX Distributed Intelligence	Enabled	No	Wired	**Optotronic by eldoLED**

*Not all compatible networks may be listed. **For performance data and additional control system details please visit the connected solutions manufacturer websites. Primary drivers are listed in **bold.** To specify a particular driver please consult factory.
†Controls systems supplied by others.

Ordering Guide

Direct Only Linear Circuitry, Zones & Factory Options

FOCAL POINT®

HOW TO USE THIS GUIDE

Fill out the worksheet on the following page to specify your requirements for circuitry, zones, and factory options.
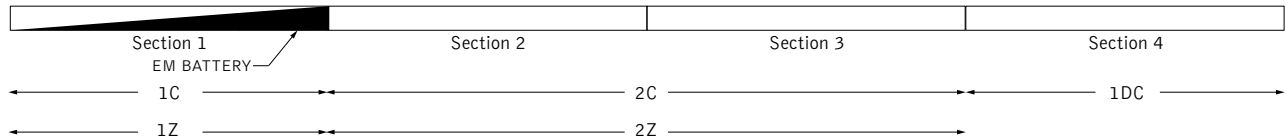
Refer to the run chart for standard run configurations, consult factory for custom configurations.

Complete the Totals / Ordering Codes at the bottom of the worksheet and add to your ordering logic on the cut sheet.

Submit the worksheet along with your order.

TOTAL RUN LENGTH: ___32ft___   **JOB NAME:** _____   **FIXTURE TYPE:** _____

	HOUSING SECTION	SECTION LENGTH	SHARED ELECTRICAL FEED, NORMAL POWER			FACTORY OPTIONS			
						SEPARATE ELECTRICAL FEEDS			EM
			SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	
E X A M P L E	1	8	1C	1Z					1EM
	2	8	2C	2Z					
	3	8	2C	2Z					
	4	8				1DC			
	Totals / Ordering Codes		**2C**	**2Z**		**1DC**			**1EM**

ORDERING: FSM4L-FL-625LF-35K- **2C2Z** -UNV-LD1-G2- **1DC-1EM** -WH-32ft

Section 1 — EM BATTERY
Section 2
Section 3
Section 4

1C
2C
1DC

1Z
2Z

KEY

C = Switching Circuit
Switched Hot / Shared Neutral

Z = Dimming Zone
Dimming Control Wires

DL = Daylight Zone
Daylight Dimming Control Wires

DC = Daylight Circuit
Switched Hot / Separate Neutral

EC = Emergency Circuit
Switched Hot / Separate Neutral

EM = Emergency Battery
Unswitched Hot / Shared Neutral

ECD = Emergency Control Device
Unswitched Hot / Separate Neutral

DEFAULTS

- Zones and Factory Options illuminate entire sections from 4' to 8' in length.

- One shared or isolated circuit and zone required per housing section.

- Limit of one EM or ECD per housing section.

- Additional electrical feed required for applications greater than three shared circuits and zones.

- Each DC, EC and ECD require an additional electrical feed.

- ECD not available in the same housing section as EC.

- Longer lead times and additional pricing may apply for custom run configurations.

CUSTOM LENGTHS

- If partial illumination of emergency or daylight section is required, indicate in ordering guide and add "partial illumination" in Order Notes. Drawing required.

- Engineering validation required, longer lead times may apply.

Ordering Guide Worksheet

Linear Circuitry, Zones & Factory Options

FOCAL POINT®

TOTAL RUN LENGTH: _____   **JOB NAME:** _____   **FIXTURE TYPE:** _____

| HOUSING SECTION | SECTION LENGTH | SHARED ELECTRICAL FEED, NORMAL POWER | | | FACTORY OPTIONS | | | |
| | | SWITCHING CIRCUIT | DIMMING ZONE | DAYLIGHT ZONE | SEPARATE ELECTRICAL FEEDS | | | EM |
					DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Totals / Ordering Codes								

WORKSHEET

Combine to create Circuits & Zones ordering code   Enter as individual Factory Options

RUN CHART

Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths
9	5 + 4	21	8 + 8 + 5	33	8 + 8 + 8 + 5 + 4	45	8 + 8 + 8 + 8 + 8 + 5
10	6 + 4	22	8 + 8 + 6	34	8 + 8 + 8 + 6 + 4	46	8 + 8 + 8 + 8 + 8 + 6
11	7 + 4	23	8 + 8 + 7	35	8 + 8 + 8 + 7 + 4	47	8 + 8 + 8 + 8 + 8 + 7
12	8 + 4	24	8 + 8 + 8	36	8 + 8 + 8 + 8 + 4	48	8 + 8 + 8 + 8 + 8 + 8
13	8 + 5	25	8 + 8 + 5 + 4	37	8 + 8 + 8 + 8 + 5		
14	8 + 6	26	8 + 8 + 6 + 4	38	8 + 8 + 8 + 8 + 6		
15	8 + 7	27	8 + 8 + 7 + 4	39	8 + 8 + 8 + 8 + 7		
16	8 + 8	28	8 + 8 + 8 + 4	40	8 + 8 + 8 + 8 + 8		
17	8 + 5 + 4	29	8 + 8 + 8 + 5	41	8 + 8 + 8 + 8 + 5 + 4		
18	8 + 6 + 4	30	8 + 8 + 8 + 6	42	8 + 8 + 8 + 8 + 6 + 4		
19	8 + 7 + 4	31	8 + 8 + 8 + 7	43	8 + 8 + 8 + 8 + 7 + 4		
20	8 + 8 + 4	32	8 + 8 + 8 + 8	44	8 + 8 + 8 + 8 + 8 + 4		

Standard run configurations, consult factory for custom configurations.

Seem® 2

LED PERIMETER

FOCAL POINT®

Flush Lens

2.5" Regress Grazer
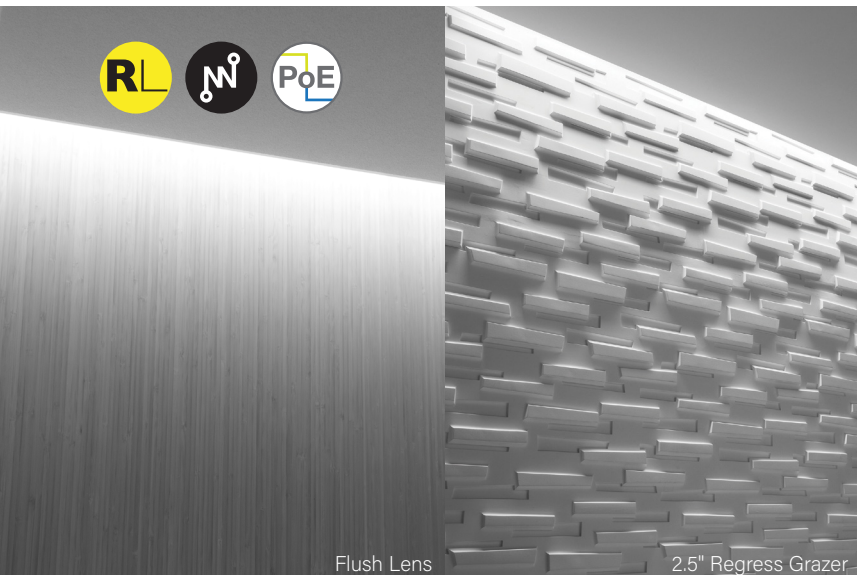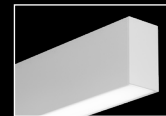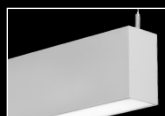
recessed companion

wall to ceiling companion

wall mount companion

suspended companion

DIMENSIONAL DATA

2.5" Regress (FL2, GR2)
Drywall/hard ceiling

7.38"
7.00"
1.50"
0.5" - 0.88"
2.50"
2.64"
3.15" - 3.50"

4.0" Regress (FL4, GR4)
Drywall/hard ceiling

8.88"
8.50"
1.50"
0.5" - 0.88"
4.00"
2.64"
3.15" - 3.50"

Flush (FL0 & AF0)
Lay-in Grid

4.88"
4.5"
1.50"
0.5" - 0.88"
2.64"
3.15" - 3.50"

Mounting Details

Regress options

Grid
15/16" or 9/16" Flat Tee main runner required at edge.

Drywall
Ceiling mounts below housing (structure by others).

Flush

Lay-in Grid | Slot Tee/ Tegular | Mud-in Drywall | Trim Flange

⚠ Luminaire must be installed prior to drywall

FEATURES

Seem 2 LED perimeter provides a glowing transition between ceiling and wall with flush, 2.5" regress or 4.0" regress lenses.

Adjustable housing option provides flexiblity with +/- 3 inch adjustability for wall-to-wall illumination.

Grazer optic provides even vertical illumination and adds drama to a space by highlighting textured walls and architectural details.

Asymmetric Room Fill optic provides superior efficacy and uniformity to light rooms and corridors from the perimeter.

Connected Solutions: Integrates with wired and wireless building lighting control systems.

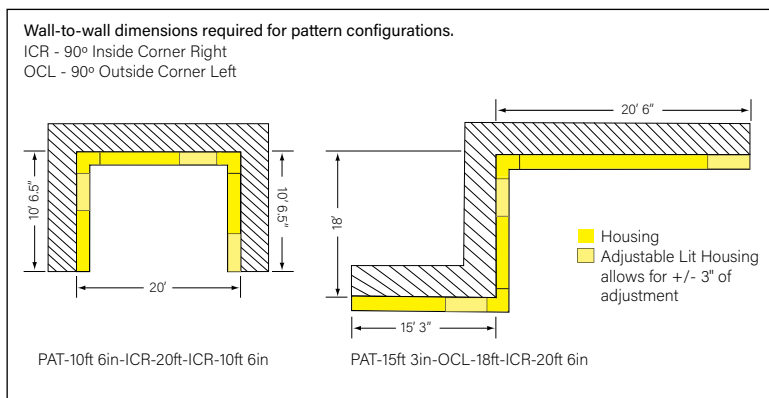PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

DISTRIBUTIONS

Flush Lens | 2.5" Regressed Lens | 4.0" Regressed Lens

2.5" Regressed Grazer | 4.0" Regressed Grazer | Flush Asymmetric Room Fill

Photometric performance is measured in accordance with IESNA LM-79.
Visit focalpointlights.com for complete photometric data.
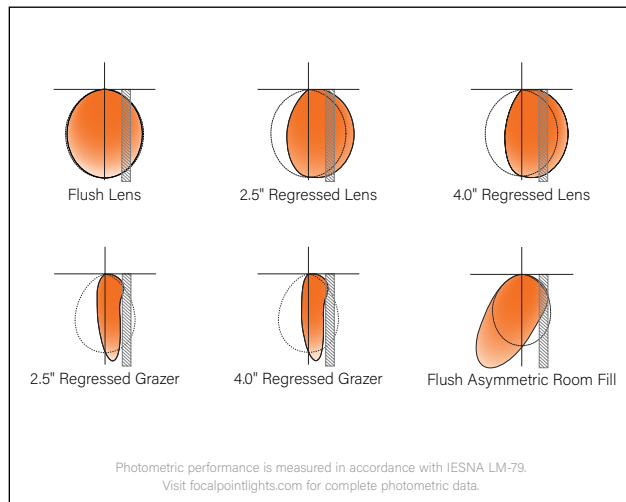
fixture: _____   project: _____

PATTERN CONFIGURATIONS

Wall-to-wall dimensions required for pattern configurations.
ICR - 90º Inside Corner Right
OCL - 90º Outside Corner Left

■ Housing
■ Adjustable Lit Housing allows for +/- 3" of adjustment

PAT-10ft 6in-ICR-20ft-ICR-10ft 6in

PAT-15ft 3in-OCL-18ft-ICR-20ft 6in

SPECIFICATIONS

LED System
Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 2700K, 3000K, 3500K or 4000K with CRI>80 or CRI>90, 3 SDCM. 3500K and 4000K with CRI>90 have a cyanosis observation index (COI) of 3.3 or less. LED modules and drivers are replaceable from below.

Construction
One piece extruded aluminum housing. 20 Ga. steel end caps, bulkheads, sliding sleeve and regress leg. 4' unit weight: 17 lbs.

Optic
Reflectors fabricated of 22 Ga. steel finished in High Reflectance White powder coat. Extruded acrylic lens .07" thick with satin finish, up to 8' continuous.

Electrical
Luminaires are pre-wired with factory installed branch circuit wiring and over-molded quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Power factor > .9. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires. PoE runs require an independent PoE node and power feed for each luminaire section.

Emergency Battery
Output - 10 watts for 90 minutes. Maximum mounting height: 17.9ft. Emergency Circuit with Connected Solutions (DLM1, LMFS1, LMFSD, NLT1, ENL1, CLM1, NXE1, WLXP) shipped standard with leads to connect UL924 compliant device, by others.

Labels
UL and cUL Listed. Suitable for Dry or Damp Locations, indoor use only.

Finish
Polyester powder coat applied over a multi-stage pre–treatment.

Lumen Maintenance
Reported: L70 at >61,000 hours   Calculated: L70 at 270,000 hours
                 L90 at >61,000 hours   L90 at 73,000 hours
(Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.)

Reliability
At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty
LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

4' PERFORMANCE CHART
See page 3.

ORDERING

			FSM2PR
Luminaire Series			
Seem 2 LED Perimeter	FSM2PR		
Housing Type			_____
Adjustable Lit Housing	ALH		
(Allows for +/- 3" adjustment to overall run length. 3' minimum luminaire length.)			
Fixed Housing	FXH		
(not recommended for wall to wall installations)			
Shielding			_____
Flush Lens	FL0		
(Not available with Unlit Sliding Sleeves - SSB)			
2.5" Regress	FL2		
4" Regress	FL4		
2.5" Regress Grazer	GR2		
4.0" Regress Grazer	GR4		
Flush Asymmetric Room Fill	AF0		
(Not available with Unlit Sliding Sleeves - SSB)			
Lumen Output			_____
125 Lumens per foot	125LF		
(LD1, L11 & D11 only. 4' minimum.)			
250 Lumens per foot	250LF		
(Not available with LH1. 4' minumum with D11.)			
375 Lumens per foot	375LF		
(4' minimum with LH1 & D11.)			
625 Lumens per foot	625LF		
(3' minimum with LH1.)			
Color Temperature			_____
2700K, 80+ CRI **or** 90+ CRI	27K **or** 927K		
3000K, 80+ CRI **or** 90+ CRI	30K **or** 930K		
3500K, 80+ CRI **or** 90+ CRI	35K **or** 935K		
4000K, 80+ CRI **or** 90+ CRI	40K **or** 940K		
Circuits & Zones			_____
1 Circuit, non-emergency	1C		
Consult Ordering Guide on page 5 for multiple circuiting and zoning options	_C_Z_DL		
Voltage			_____
120/277 UNV Volt	UNV		
Low Voltage	LV		
Control System & Dimming Level			_____
0-10V - 10% Dimming	LD1		
0-10V - 1% Dimming	L11		
Low Voltage, PoE compatible	LVN		
(No driver. Not available with EM or EC. LV Voltage only.)			
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1		
DALI 1% Dimming	D11		
Wattstopper DLM - 1% Dimming*	DLM1		
(Not available with CP)			
Wattstopper Fixture Sensor* Low Density – 1% Dimming	LMFS1		
(Remote mounted sensor. See sensor layout guide)			
Wattstopper Fixture Sensor* High Density – 1% Dimming	LMFSD		
(Remote mounted sensor. See sensor layout guide)			
Acuity nLight - 1% Dimming*	NLT1		
(Not available with CP.)			
Enlighted Smart Sensor - 1% Dimming*	ENL1		
(Remote mounted sensor. See sensor layout guide)			
Encelium CLM Connected Lighting Module -* 1% Dimming	CLM1		
Current NX Enabled – 1% Dimming*	NXE1		
(Not available with CP)			
WaveLinx Pro – 1% Dimming*	WLXP		
(Remote mounted sensor. See sensor layout guide)			
*(3' minimum length. 7' minimum length with FXH & EM. Not available with ALH & EM. G & ST mounting only.)			
Mounting			_____
Lay-in Grid	G		
Slot Tee / Tegular	ST		
Flush (FL0 & AF0) — Trim Flange Drywall	TF		
Mud-in Trimless Drywall	XFF		
Regressed (FL2, FL4, GR2 & GR4) — Grid	G		
Trimless Drywall	XF		
Factory Options			
(See Ordering Guide for ordering details for DC, EC, EM & ECD.)			
Chicago Plenum	CP		_____
(Not available with Flex Whip)			
Daylight Circuit	_DC		_____
Emergency Circuit	_EC		_____
Emergency Battery Pack†	_EM		_____
Emergency Control Device†	_ECD		_____
6' New York City Flex Whip (120V)	FNY1		_____
6' New York City Flex Whip (277V)	FNY2		_____
6' Flex Whip	FW		_____
Unlit Sliding Sleeves	SSB		_____
(Set of two unlit 12" sleeves. Fixed housing in straight runs only. FL2, FL4, GR2 & GR4 only. 3' minimum luminaire length.)			
Finish			WH
Matte White Housing	WH		
Luminaire Length			ft in
Specify luminaire/row length in 1" increments	_ft _in		
(2' minimum length)			
Pattern Options			_____
Specify patterns based on wall-to-wall dimensions	PAT		
(See Pattern Configurations for example)			

Example: FSM2LPR-ALH-FL2-625LF-35K-1C-120-LD1-G-WH-PAT-10-ICR-20-ICR-10

† 4' minimum length with EM or ECD. 120/277 Volt only. EM or ECD not available at corners.

4' PERFORMANCE CHART

Lumens per Foot	Lumen Output	Tested System Watts	LPW FL0	LPW FL2	LPW FL4	LPW GR2	LPW GR4	LPW AF0
125LF	500	6	69	64	62	80	79	84
250LF	1000	12	85	78	76	98	97	103
375LF	1500	18	89	82	80	103	102	108
625LF	2500	31	86	79	78	100	99	105

Based on 3500K, 80 CRI, 4' lengths. Lumen multipliers: Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.
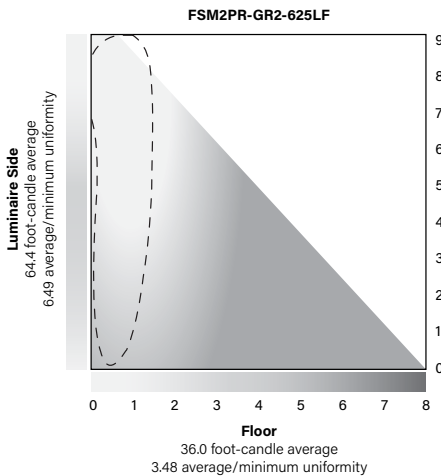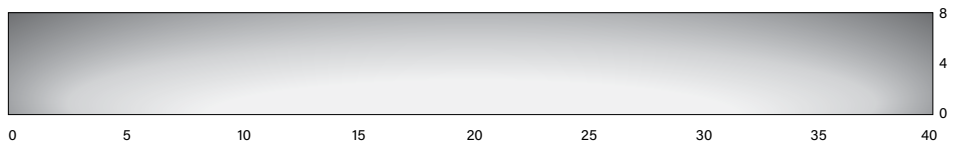
SELECTING THE BEST OPTIC FOR EACH APPLICATION

8' W x 40' L x 9' H Corridor | 80/50/20 Reflectances | 0.9 Light Loss Factor

FSM2PR-FL0-625LF

Luminaire Side
43.6 foot-candle average
5.41 average/minimum uniformity

Floor
34.0 foot-candle average
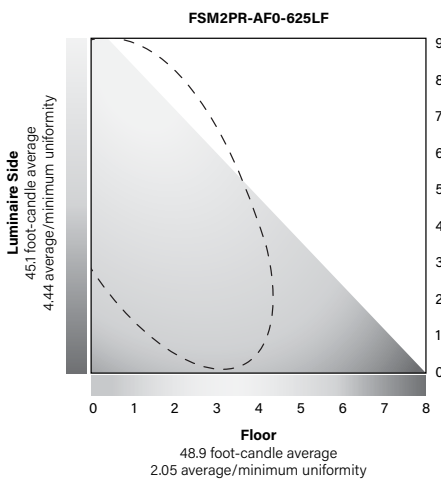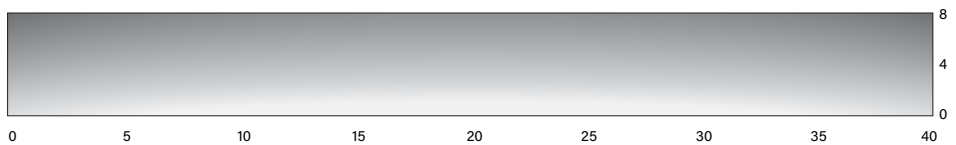1.99 average/minimum uniformity
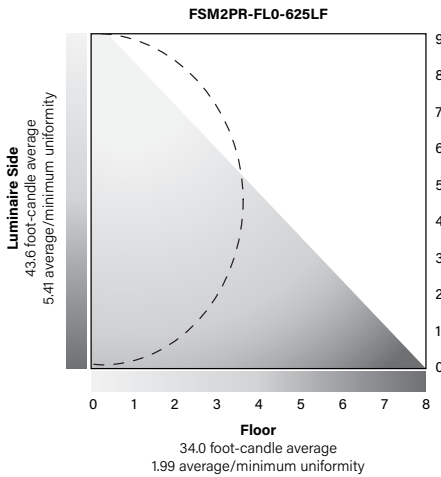
Standard Lens

The standard optic results in a Lambertian light distribution that provides uniform illumination. It is ideal to create a glowing transition between the walls and ceiling, adding dimension to the space.

FSM2PR-GR2-625LF

Luminaire Side
64.4 foot-candle average
6.49 average/minimum uniformity

Floor
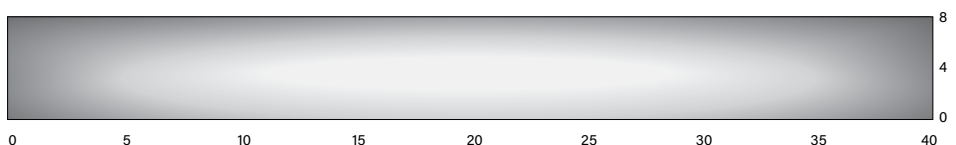36.0 foot-candle average
3.48 average/minimum uniformity

Grazer Lens

The grazer optic closely grazes walls, highlighting textures and architectural details. It is intended to provide even illumination and deliver maximum visual impact on the vertical surfaces.

FSM2PR-AF0-625LF

Luminaire Side
45.1 foot-candle average
4.44 average/minimum uniformity

Floor
48.9 foot-candle average
2.05 average/minimum uniformity

Asymmetric Room Fill Lens

The asymmetric room fill optic projects light into the space to evenly illuminate horizontal planes. It is ideal to light rooms and corridors from the perimeter, resulting in superior efficacy and uniformity on the floor.

Seem® 2 Perimeter
LED

CONNECTED® SOLUTIONS

Focal Point provides flexibility in meeting the needs of each project by integrating with several building lighting control systems. A variety of sensors, drivers and other components can be specified that allow the luminaires to communicate with wired and wireless networks. All zoning can be digitally reconfigured through the application software. Daylight harvesting, occupancy sensing, integration with HVAC systems, and individual controls enable the monitoring and modulating of light levels and temperature in order to save energy, reduce costs and maximize occupants' comfort. All Connected Solutions luminaires require a compatible building control system.†

Connected Solution		Ordering Code	Model #**	Protocol	Compatible Networks*	Occupancy & Daylight	Temperature Reporting	Communication to Luminaire	Drivers
legrand® WATTSTOPPER®		DLM1	LMFC-011	DLM	DLM	Enabled	No	Wired	**Advance by Signify**, Optotronic by eldoLED
		LMFS1	LMFS-601 & LMFI-111	DLM Wireless	DLM	Enabled	No	Wireless	**Advance by Signify**
		LMFSD	LMFS-601						**Optotronic by eldoLED (Dexal)**
COOPER Lighting Solutions		WLXP	OEM-WAA	WaveLinx Wireless	WaveLinx Pro Trellix	Enabled	No	Wireless (WaveLinx Pro Wireless Area Controller)	**Advance by Signify**
CRESTRON Connections located under access panel.		D11	Specified Driver	DALI	Crestron Zūm Wireless & SpaceBuilder	Enabled	No	Wired	**eldoLED ECOdrive**
		L11		0-10V					**Advance by Signify**
ENCELIUM		CLM1	ZBHA-CLM-DIM-ENC	ZigBee	Encelium X Light Management System	Enabled	No	Wireless	**Optotronic by eldoLED** Advance by Signify
Enlighted		ENL1	SU-5E-IOT	Enlighted RF	Enlighted	Integrated	Yes	Wireless	**Advance by Signify**
LUTRON Connections located under access panel.		LH1	LDE1	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	No	Wired	**Lutron Hi-Lume**
nLIGHT Connections located under access panel.		NLT1	nEPS-60-IO	nLight	nLight	Enabled	No	Wired	**eldoLED ECOdrive**, eldoLED SOLOdrive
NX LIGHTING CONTROLS™ NXE1 adds 0.78" to overall height.		NXE1	NXFM-LV	NX	NX Distributed Intelligence	Enabled	No	Wired	**Optotronic by eldoLED**

*Not all compatible networks may be listed. **For performance data and additional control system details please visit the connected solutions manufacturer websites. Primary drivers are listed in **bold.** To specify a particular driver please consult factory.
†Controls systems supplied by others.

Ordering Guide

Direct Only Linear Circuitry, Zones & Factory Options

FOCAL POINT®

HOW TO USE THIS GUIDE

Fill out the worksheet on the following page to specify your requirements for circuitry, zones, and factory options.
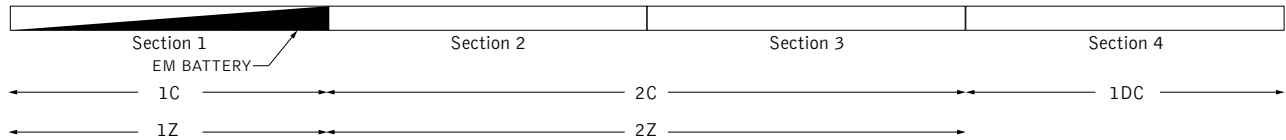
Refer to the run chart for standard run configurations, consult factory for custom configurations.

Complete the Totals / Ordering Codes at the bottom of the worksheet and add to your ordering logic on the cut sheet.

Submit the worksheet along with your order.

TOTAL RUN LENGTH: _32ft_   **JOB NAME:** _____   **FIXTURE TYPE:** _____

	HOUSING SECTION	SECTION LENGTH	SHARED ELECTRICAL FEED, NORMAL POWER			FACTORY OPTIONS			
						SEPARATE ELECTRICAL FEEDS			EM
			SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	
EXAMPLE	1	8	1C	1Z					1EM
	2	8	2C	2Z					
	3	8	2C	2Z					
	4	8				1DC			
	Totals / Ordering Codes		**2C**	**2Z**		**1DC**			**1EM**

ORDERING: FSM4L-FL-625LF-35K- **2C2Z** -UNV-LD1-G2- **1DC-1EM** -WH-32ft

Section 1
EM BATTERY
Section 2
Section 3
Section 4

1C — 2C — 1DC
1Z — 2Z

KEY

C = Switching Circuit
Switched Hot / Shared Neutral

Z = Dimming Zone
Dimming Control Wires

DL = Daylight Zone
Daylight Dimming Control Wires

DC = Daylight Circuit
Switched Hot / Separate Neutral

EC = Emergency Circuit
Switched Hot / Separate Neutral

EM = Emergency Battery
Unswitched Hot / Shared Neutral

ECD = Emergency Control Device
Unswitched Hot / Separate Neutral

DEFAULTS

- Zones and Factory Options illuminate entire sections from 4' to 8' in length.

- One shared or isolated circuit and zone required per housing section.

- Limit of one EM or ECD per housing section.

- Additional electrical feed required for applications greater than three shared circuits and zones.

- Each DC, EC and ECD require an additional electrical feed.

- ECD not available in the same housing section as EC.

- Longer lead times and additional pricing may apply for custom run configurations.

CUSTOM LENGTHS

- If partial illumination of emergency or daylight section is required, indicate in ordering guide and add "partial illumination" in Order Notes. Drawing required.

- Engineering validation required, longer lead times may apply.

Ordering Guide Worksheet

Linear Circuitry, Zones & Factory Options

FOCAL POINT®

TOTAL RUN LENGTH: _____   **JOB NAME:** _____   **FIXTURE TYPE:** _____

| HOUSING SECTION | SECTION LENGTH | SHARED ELECTRICAL FEED, NORMAL POWER | | | FACTORY OPTIONS | | | |
| | | SWITCHING CIRCUIT | DIMMING ZONE | DAYLIGHT ZONE | SEPARATE ELECTRICAL FEEDS | | | EM |
					DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Totals / Ordering Codes								

WORKSHEET

Combine to create Circuits & Zones ordering code

Enter as individual Factory Options

RUN CHART

Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths
9	5 + 4	21	8 + 8 + 5	33	8 + 8 + 8 + 5 + 4	45	8 + 8 + 8 + 8 + 8 + 5
10	6 + 4	22	8 + 8 + 6	34	8 + 8 + 8 + 6 + 4	46	8 + 8 + 8 + 8 + 8 + 6
11	7 + 4	23	8 + 8 + 7	35	8 + 8 + 8 + 7 + 4	47	8 + 8 + 8 + 8 + 8 + 7
12	8 + 4	24	8 + 8 + 8	36	8 + 8 + 8 + 8 + 4	48	8 + 8 + 8 + 8 + 8 + 8
13	8 + 5	25	8 + 8 + 5 + 4	37	8 + 8 + 8 + 8 + 5		
14	8 + 6	26	8 + 8 + 6 + 4	38	8 + 8 + 8 + 8 + 6		
15	8 + 7	27	8 + 8 + 7 + 4	39	8 + 8 + 8 + 8 + 7		
16	8 + 8	28	8 + 8 + 8 + 4	40	8 + 8 + 8 + 8 + 8		
17	8 + 5 + 4	29	8 + 8 + 8 + 5	41	8 + 8 + 8 + 8 + 5 + 4		
18	8 + 6 + 4	30	8 + 8 + 8 + 6	42	8 + 8 + 8 + 8 + 6 + 4		
19	8 + 7 + 4	31	8 + 8 + 8 + 7	43	8 + 8 + 8 + 8 + 7 + 4		
20	8 + 8 + 4	32	8 + 8 + 8 + 8	44	8 + 8 + 8 + 8 + 8 + 4		

Standard run configurations, consult factory for custom configurations.

Project		Catalog #		Type	
Prepared by		Notes		Date	

Portfolio

LDRT6C | EU6C | 6LB

6" Round, Retrofit/Install from Below Downlight
Narrow, Medium, Wide and Wall Wash
250-15,000 Lumens

Typical Applications

Office • Education • Healthcare • Hospitality • Retail •
Code-Compliance Areas • Sports Venues

Interactive Menu

Product Certification

ENERGY STAR

Efficiency Standards
T24
Can be used to comply
with Title 24 Part 6
LED Enclosed Light
Source Requirements (JA8)

RoHS COMPLIANT

UL CERTIFIED

Product Features

powered by fifthlight technology

wet location

CHICAGO PLENUM APPROVED

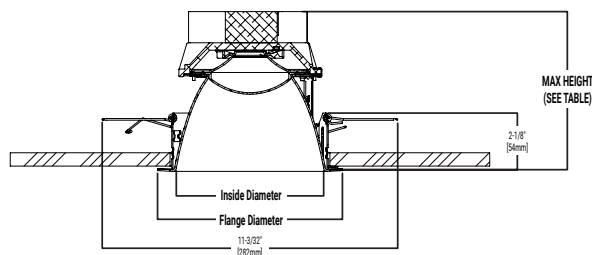TAA COMPLIANT OPTIONS TRADE AGREEMENTS ACT AVAILABLE

Top Product Features

- 250 to 15,000 lumens; Offered in 90 and 97 CRI; ENERGY STAR® qualified
- Remodel, retrofit or international installation; Retrofits existing HID, incandescent or compact fluorescent downlights
- Die-cast or spun aluminum reflectors; Narrow beam, medium beam and wide beam distributions; Optional shallow trim for 2x4 construction
- Standard 0-10V driver dims to 1%; Easy disconnect for LED engine replacement and installation
- 2400K, 2700K, 3000K, 3500K, 4000K, 5000K; D2W™ option from 3000K to 1850K
- Available W2N tunable white CCT range 2700K to 6500K or 2000K to 5000K
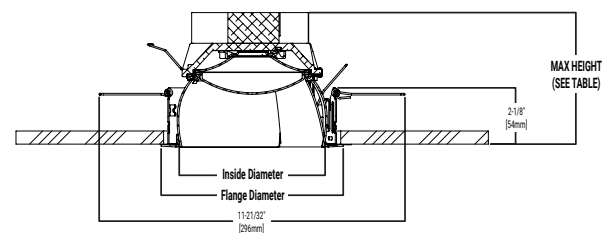- Options to meet Trade Agreements Act requirements

Dimensional and Mounting Details

LDRT6C

MAX HEIGHT (SEE TABLE)

2-1/8" [54mm]

Inside Diameter
Flange Diameter
11-3/32" [282mm]

CLICK HERE - LDRT6C dimension information

LDRT67C

MAX HEIGHT (SEE TABLE)

2-1/8" [54mm]

Inside Diameter
Flange Diameter
11-21/32" [296mm]

CLICK HERE - LDRT67C dimension information

COOPER Lighting Solutions

Single Line Order Information

SAMPLE ORDER NUMBER: **LDRT6C159035DE010W1LI**

Invoice will indicate separate fixture components (housing, trim, module) which will ship complete from a single CLS facility in separate cartons.

Multi-line Ordering Information Option

Domestic Preferences [19]	Housing	Lumen [1]		Color Control	CCT [20]	
[Blank]=Standard **TAA**=Trade Agreements Act	**LDRT6C**=LED Retrofit for 6" to 6-7/16" or 8-9/16" with ABR8P openings **LDRT6CCP**=LED Retrofit for 6" to 6-7/16" or 8-9/16" with ABR8P openings, Chicago Plenum **LDRT67C**=LED Retrofit for 6-1/2" to 7-1/2" openings **LDRT67CCP**=LED Retrofit for 6-1/2" to 7-1/2" openings, Chicago Plenum	**02** = 250 lumens, IC rated **05** = 500 lumens, IC rated **08** = 800 lumens, IC rated **10** = 1000 Lumens **10IC** = 1000 Lumens, IC rated **15** = 1500 Lumens **15IC** = 1500 Lumens, IC rated **20** = 2000 Lumens **25** = 2500 lumens	**30** = 3000 Lumens **35** = 3500 lumens **40** = 4000 Lumens **45** = 4500 Lumens [10] **50** = 5000 Lumens [10] **55** = 5500 Lumens [10] **60** = 6000 Lumens [10] **65** = 6500 Lumens [10] **70** = 7000 Lumens [10] **75** = 7500 Lumens [10] **80** = 8000 Lumens [10] **90** = 9000 Lumens [10] **100** = 10,000 Lumens [10] **110** = 11,000 Lumens [10] **120** = 12,000 Lumens [10] **130** = 13,000 Lumens [10] **150** = 15,000 Lumens [10]	**90**=90 CRI Minimum **97**=97 CRI Minimum	**90 CRI** **24**=2400K **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**97 CRI** **27**=2700K **30**=3000K

Driver (*Specify from Driver column.*)	Specify from Driver column. Information below for reference only.	Driver Options	Hanger Bars
	Remote driver & plug in driver	**Blank** = Integral driver **RC100** = Remote 100ft [3] [32] **RC75** = Remote 75ft [3] [32] **RC50** = Remote 50ft [3] [32] **RC25** = Remote 25ft [3] **RC15** = Remote 15ft [3] **RC5** = Remote 5ft [3] **RC2** = Remote 2ft [3] **PD** = Plug in Driver	**Blank** = Without hanger bars **HB26** = C-channel Bar Hanger, 26" Long, Pair
D010=0-10V Dimming, 1% to 100%, 120V-277V, up to 7000 lumens (up to 3000 lumens for remote driver) **1D010**=0-10V Dimming, 1% to 100%, 120V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **2D010**=0-10V Dimming, 1% to 100%, 277V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **3D010**=0-10V Dimming, 1% to 100%, 347V dedicated drivers, 800-4000 lumens; 250, 500, 4500 & above use step down transformer (250 to 7000 lumens for remote driver)	250-7000		
D010TR=0-10V Dimming, 5% to 100%, 120V-277V, 250- 4500 lumens (up to 3000 lumens for remote driver) **1D010TR**=0-10V Dimming, 5% to 100%, 120V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) **2D010TR**=0-10V Dimming, 5% to 100%, 277V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) **3D010TR**=0-10V Dimming, 5% to 100%, 347V step down transformer, 250-9000 & 13,000 lumens (250 to 4500 lumens for remote driver)	250-4500		
DE010=0-10V Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1DE010**=0-10V Dimming, 0% to 100%, 120V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **2DE010**=0-10V Dimming, 0% to 100%, 277V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **3DE010**=0-10V Dimming, 0% to 100%, 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver)	500-7000		
D5LT=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1D5LT**=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **2D5LT**=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 277V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **3D5LT**=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100% 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver)	500-7000		
DMX=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-4500 lumens (up to 3000 lumens for remote driver) [14] **1DMX**= DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) [14] **2DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) [14] **3DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-9000 & 13,000 lumens (800 to 4500 lumens for remote driver) [14]	800-4500		
DMXC5=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-4500 lumens, RJ45 Connection (up to 3000 lumens for remote driver) [14] **1DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 & 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) [14] **2DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 & 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) [14] **3DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-9000 & 13,000 lumens, RJ45 Connection (800 to 4500 lumens for remote driver) [14]	800-4500		
1DL2 = Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V, 800-7500 lumens (800 to 3500 lumens for remote driver) **3DL2** = Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 347V step down transformer, 800-7500 lumens (800 to 3500 lumens for remote driver)	800-3500		
DLE=Lutron Ecosystem dimming 1% to 100%, 120V-277V, 800-3500 lumens (up to 3000 lumens for remote driver) **1DLE**=Lutron Ecosystem dimming 1% to 100%, 120V, 4000-7500 lumens (3500 lumens for remote driver) **2DLE**=Lutron Ecosystem dimming 1% to 100%, 277V, 4000-7500 lumens (3500 lumens for remote driver) **3DLE**=Lutron Ecosystem dimming 1% to 100%, 347V step down transformer, 800-7500 lumens (800-3500 lumens for remote driver)	800-3500		
DLV = Low voltage dimming driver (1-100%) for use with DLVP system 800-3000 lumens [3]	800-3000 (Remote driver only)		

Trim Distribution [5]	Trim Flange	Trim Finish	Options [3] [16] [30]
N=Narrow, Spun Aluminum [26] **M**=50° Cutoff, Medium Beam Reflector, Spun Aluminum **MD**=45° Cutoff, Medium Beam Reflector, Spun Aluminum **W**=Wide, Spun Aluminum **S**=Shallow, Spun Aluminum **HY**=Hyperbolic medium beam [26] [29] **PS**=Non-Conductive Shallow, Injection Molded white [11] [12] **CS**=Cast Shallow, Die Cast Aluminum **BA**=Spun Aluminum Baffle [7] **Wall Wash** **SWN** = Single Wall Wash, Spun Aluminum [23] **DWN** = Double Wall Wash, Spun Aluminum [23] **CW** = Corner Wall Wash, Spun Aluminum [23] **LSWW** = Lensed Single wall wash, Spun Aluminum **LDWW** = Lensed Double wall wash, Spun Aluminum	**0**=White Polymer Trim Ring **1**=Self-flanged [13] **2**=White Painted Self-flanged	**LI**=Specular Clear [9] **H**=Semi-Specular Clear [9] **WMH**=Warm Haze [9] **WH**=Wheat [9] **GPH**=Graphite Haze [9] **B**=Specular Black [9] **MW**=Matte White (Antimicrobial) **MB**=Matte Black [8] **MMS**=Matte Metallic Silver [8]	**EMBOD**=Bodine® Emergency Module with Remote Test Switch [25] **EMBOD6ST**=Bodine® 6W Self Test Emergency Module with Remote Test Switch **EM7**=7W Emergency Module with Remote Test Switch **EM14**=14W Emergency Module with Remote Test Switch **EMBOD7ST**=Bodine® Self Test Emergency Module [25] **EMV7**=7W Low Voltage Emergency Module with Remote Test Switch [4] **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch [4] **ETRD**=Emergency transfer device [31] **WPST** = Factory installed Wavelinx (includes control module, sensor, cable, tile mount and ceiling mount sensor) [15] [18] **WLST** = Factory installed WaveLinx Lite Sensor Kit [15] [17]

Single Line Order Information

Accessories (*Sold separately*) [22]		
TRM6P=White Metal Trim Ring [2] **LGSKT6IP66**=IP66 Gasket Kit **DT6RF**=Deco Trim Ring Frosted [28]	**Connected Lighting Systems** [3] [15] **WPST** = Field installed WaveLinx sensor Kit [17] **WLST** = Field installed WaveLinx Lite Sensor Kit [18]	**Transformers** **H347**=H347 for 90/97CRI 5500 lumens and below; 98CRI 4000 lumens and below; D2W 4500 lumens and below; W2N 4000 lumens and below **H347200**=347 to 120V Step Down Transformer, 200VA

Notes:

1. Nominal Lumens will vary depending on selected color, CRI, driver and reflector finish. Reference Multiplier tables.

2. Order trim with polymer trim ring.

3. Not available with Chicago Plenum.

4. ULus listed only

5. Beam angles are nominal with LI finish trims.

6. Available with remote driver only.

7. Only available with Matte White and Matte Black Finishes.

8. Available only on CS distributions.

9. Not available on PS, CS or BA distributions.

10. Product is marked spacing. Reference table on page 4.

11. PS available in self-flanged MW finish only.

12. Offered up to 2000 lumens

13. Flange is the same finish as the reflector

14. DMX fixtures default to full on upon loss of DMX signal.

15. Refer to system specifications for additional information,features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.

16. Non-IC

17. WLST = WaveLinx Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx Lite system specifications)

18. WPST = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.

19. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analysed under domestic preference requirements. Offered with spun aluminum narrow, medium and wide trims.

20. Not required for W2N and D2W.

21. Limited to 1000 lumens with remote driver

22. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

23. For use with LDRT67C only

25. Not available for W2N or 6500-7000 lumens with 90 and 97 CRI

26. Offered up to 7000 lumens

27. Not available with 5500, 6500, 7500.

28. Order with self flanged trim.

29. Offered with DLVP up to 3000 lumens for 90 and 97 CRI and 2000 lumens with 98 CRI.

30. 120V-277V

31. Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others)

32. Not available with Lutron drivers

Product Specifications

Lower Shielding Reflector
- Painted die-cast aluminum or spun aluminum lower reflector with lensed upper optical chamber provides superior lumen output with minimal source brightness
- Spun reflectors are available in all Portfolio anodized finishes
- Hyperbolic reflector provides minimal aperture brightness and glare.
- Available with non-conductive polymer reflector up to 2000 lumens

Wall Wash Reflector
- **Open Wall Wash** - wall wash reflector with gradient kicker offered in single, double and corner wall wash provides even vertical illumination with minimal source brightness.
- **Rotatable Lensed Wall Wash** - Rotatable Lensed wall wash reflector offered in single and double wall wash provides even vertical illumination with minimal source brightness.

Trim Retention
- Two torsion springs hold reflector flange tightly to the finished ceiling surface

Plaster Frame/Collar
- Die-cast aluminum 1 ½" deep collar
- Accommodates up to 2" ceiling thickness

Plaster Ring
- Galvanized steel ring installs with 2 mouse trap springs for secure installation and accommodates up to 2 inch ceiling thickness.
- Retrofit - Converts existing HID, incandescent or compact fluorescent downlights to energy saving LED.
- Simple below ceiling installation without removing the existing fixture. Pre-wired flexible conduit with snap in connector installs into 1/2" knockout on the existing junction box.
- LDRT67B includes oversize adapter ring for larger openings

Thermal
- Aluminum heat sink conducts heat away from the LED module for improved performance and longer life

LED System
- Contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution without pixilation
- Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded
- Quick disconnect allows for tool-less replacement of LED engine from below ceiling
- 90 and 97 CRI

- 90 & 97CRI: L78 55,000 hours for 1000-2000 lumens, L90 55,000 for all other lumen output
- Color variation within 2-step MacAdam ellipses
- Available in 2400K, 2700K, 3000K, 3500K, 4000K and 5000K correlated color temperature (CCT)

Vividtune and High CRI
- 98 CRI and W2N: L70 55,000 hours
- D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.
- W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI. Standard
- **98 CRI** With a full-spectrum approach using broad-blue chip technology and special phosphor blends, Thrive is able to closely match the spectrum of the sun across all color temperatures. Benefits of the natural spectrum of the sun using Thrive include superior accurate color rendering, reduced eye strain, and a higher sense of emotional well-being.
- See dedicated specification sheet for more details.

Driver
- Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%
- Optional 120V leading edge/0-10V, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem
- Driver can be serviced from above or through the aperture
- Distributed low voltage power system combines power, lighting, and controls with ease of installation.
- Optional magnetically guided snap in driver for ease of maintenance.

Emergency Option
- Provides 90 minutes of standby lighting, meeting most life safety codes for egress lighting
- Available with remote charge indicator and test switch
- Available Self-Test (self-diagnostic) with remote charge indicator and test switch
- Emergency Transfer Relay Device bypasses local control during a power outage
- UL 924 listed

Connected Lighting System
Two WaveLinx connected systems to choose from. Refer to WaveLinx system specifications and application guides for details.

WaveLinx Wireless System Tilemount Sensor Kit
- WaveLinx Wireless WLST tile mount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinx Lite System Tilemount Sensor Kit
- WaveLinx Lite WPST tile mount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinx Tilemount Kits Application
- The WLST and WPST tilemount kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WLST and WPST tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

Code Compliance
- Thermally protected
- cULus Listed for wet locations with downlight; damp location with wall wash and hyperbolic with covered ceiling
- Optional City of Chicago environmental air (CCEA) marking for plenum applications
- FCC CFR Title 47 Part 15 Class B at 120VAC and Class A at 277VAC
- Insulated ceiling (IC) rated up to 1,500 lumens (90 and 97CRI). All others are non-IC rated (insulation must be kept 3" from top and sides of housing).
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- RoHS compliant
- Photometric testing completed in accordance with IES LM-79
- LED life testing completed in accordance with IES LM-80-08 and TM-21-11 standards
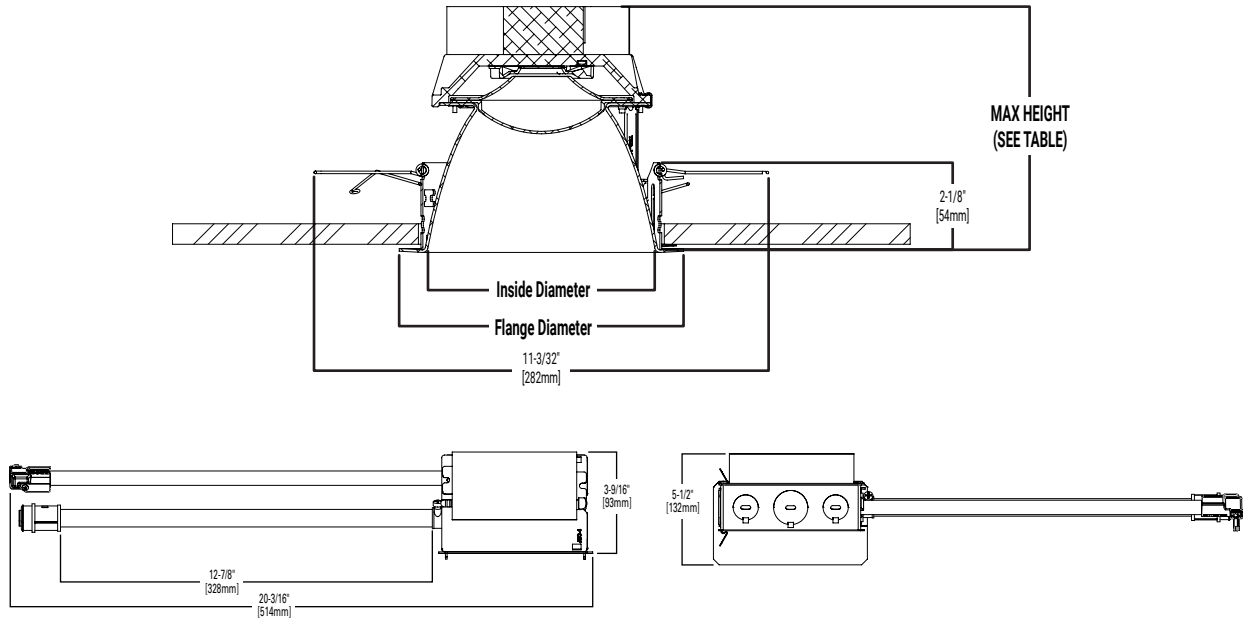- See table on page 3 for marked spacing requirements.

Warranty
- Five year warranty

Marked Spacing

6-inch Marked spacing for 90 and 97 CRI		
4500-6000	36	36	6
6500-15,000	36	36	8

Dimensional and Mounting Details

LDRT6C

CATALOG #	Flange DIAMETER [IN]	INSIDE DIAMETER [IN]	MAX HEIGHT				
			250-2500 LUMENS	3000-4000 LUMENS	1000-1500IC LUMENS (90/97CRI) / 4500-6000 LUMENS (90/97CRI)	6500-7000 LUMENS (90/97CRI) / 4000-8000 LUMENS (90/97CRI)	9000-15000 LUMENS (90/97CRI)
6LBN	6.94	5.54	5.7	5.9	6.1	7.1	9.1
6LBM	6.94	5.54	5.7	5.9	6.1	7.1	9.1
6LBW	6.94	5.56	4.8	5	5.2	6.2	8.2
6LBBA	6.94	5.56	5.7	5.9	6.1	7.1	9.1
6LBMD	6.94	5.55	6.7	6.9	7	8	10
6LBHY	6.94	5.68	5.9	6	6.2	7.2	9.2
6LBS	6.94	5.62	3.5	3.5	3.7	4.7	6.7
6LBPS	6.94	5.66	3.5	3.5	3.7	4.7	6.7
6LBCS	6.94	5.66	3.5	3.5	3.7	4.7	6.7
6LBLSWW	6.94	5.56	4.8	5	5.2	6.2	8.2
6LBLDWW	6.94	5.56	4.8	5	5.2	6.2	8.2

Dimensional and Mounting Details

LDRT67C
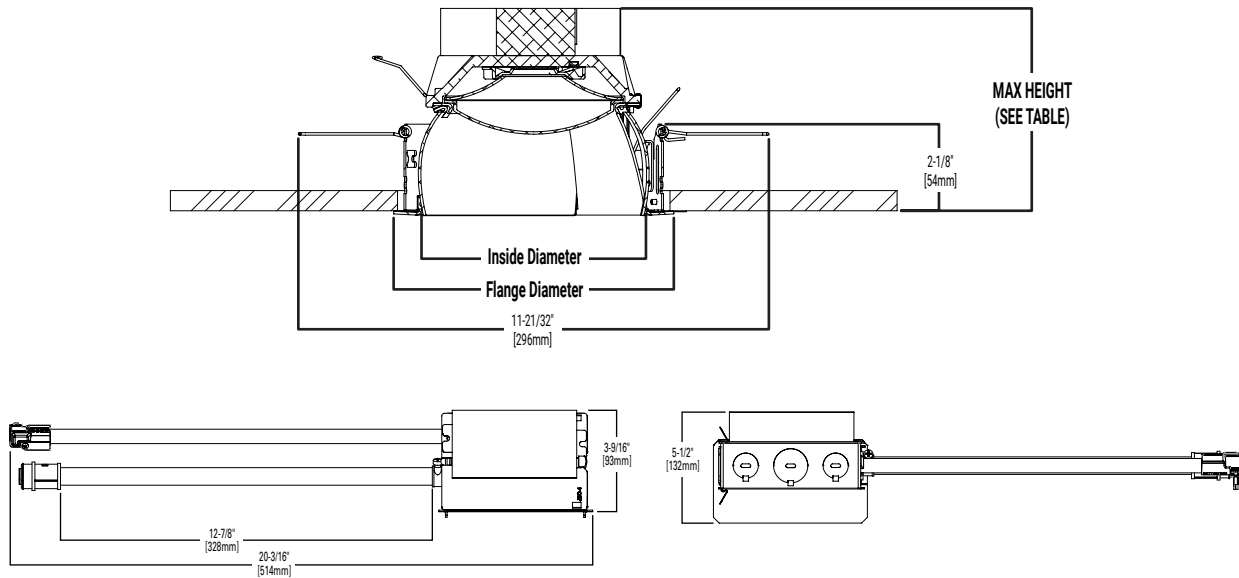
MAX HEIGHT (SEE TABLE)

2-1/8" [54mm]

Inside Diameter

Flange Diameter

11-21/32" [296mm]

3-9/16" [93mm]

5-1/2" [132mm]

12-7/8" [328mm]

20-3/16" [514mm]

CATALOG #	Flange DIAMETER [IN]	INSIDE DIAMETER [IN]	MAX HEIGHT				
			250-2500 LUMENS	3000-4000 LUMENS	1000-1500IC LUMENS	6500-7000 LUMENS	9000-15000 LUMENS
6LBSWN	6.94	5.56	4.8	5	5.2	6.2	8.2
6LBDWN	6.94	5.56	4.8	5	5.2	6.2	8.2
6LBCW	6.94	5.14	4.9	5.1	5.3	6.3	8.3

Energy and Performance Data

D010 DRIVER ENERGY DATA

Series	250 lumen		500 lumen		800 lumen		1000 lumen		1500 lumen		2000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.029	0.017	0.061	0.032	0.085	0.041	0.084	0.042	0.135	0.063	0.189	0.084
Input Power (W)	3.45	3.87	7.33	7.78	10.15	10.52	10.04	10.43	16.17	16.56	22.58	22.63
In-rush (A)	2.1	8.5	3.7	8.5	3.6	8.3	3.6	8.4	2.3	9.5	2.1	9.7
Inrush duration (μs)	250	131	190	136	220	135	226	136	230	125	243	132
THDi (%)	7.21	16.92	7.82	10.78	5.57	9.63	7.78	9.24	4.75	9.93	8.03	7.44
PF	≥ 0.98	≥ 0.9	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.96

Series	2500 lumen		3000 lumen		3500 lumen		4000 lumen		4500 lumen		5000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.276	0.121	0.276	0.041	0.333	0.152	0.404	0.181	0.421	0.192	0.491	0.216
Input Power (W)	32.98	32.57	32	10.52	39.83	39.84	48.38	47.94	50.22	50.17	58.69	58.01
In-rush (A)	2.5	11.8	3.6	8.3	3.1	14.3	3.1	14.5	5.6	22.6	5.6	22.6
Inrush duration (μs)	215	111	220	135	200	94	197	95	215	120	213	135
THDi (%)	9.86	6.57	5.57	9.63	4.25	10.05	5.02	7.97	6.12	8.35	8.51	7.92
PF	≥ 0.99	≥ 0.97	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.96

Series	5500 lumen		6000 lumen		6500 lumen		7000 lumen		7500 lumen		8000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.526	0.231	0.542	0.256	0.572	0.266	0.632	0.292	0.668	0.306	0.734	0.332
Input Power (W)	62.97	61.97	64.88	65.7	68.35	69.02	75.56	75.85	79.89	80.09	88.01	87.81
In-rush (A)	5.1	23.1	6.2	27.5	6.3	28.4	6.4	29.1	6.4	28.7	6.3	29.7
Inrush duration (μs)	217	138	188	101	189	92	187	90	185	100	187	123
THDi (%)	9.42	7.16	4.33	11.86	4.38	11.33	4.84	10.32	4.46	9.85	3.92	8.92
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.95

Series	9000 lumen		10000 lumen		11000 lumen		12000 lumen		13000 lumen		15000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.842	0.374	0.961	0.416	1.09	0.49	1.192	0.512	1.263	0.561	1.446	0.624
Input Power (W)	101.12	99.88	114.86	113.66	130.27	127.6	142.59	140.17	151.68	149.82	172.29	170.51
In-rush (A)	12.9	28.6	11.4	40.3	11.5	40.2	11.5	41.2	19.2	43.1	17.2	40.4
Inrush duration (μs)	170	97	248	124	233	118	246	114	170	97	240	125
THDi (%)	5.74	9.28	7.42	8.55	6.08	13.13	5.7	7.3	5.74	7.58	5.86	8.56
PF	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.98	≥ 0.99	≥ 0.9	≥ 0.99	≥ 0.99	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.98

Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)
Sound Rating: Class A standards

Notes:
Emergency Battery packs are rated for a minimum starting temperature of 0°C.

COLOR METRICS - TM-30-15 & CRI/CIE

90 CRI Color Metric Summary - 3500K*

TM-30-15	Rf = 92
	Rg = 98
CRI/CIE	Ra = 92.2
	R9 = 51.4

97 CRI Color Metric Summary - 2700K*

TM-30-15	Rf = 95
	Rg = 99.8
CRI/CIE	Ra = 92.2
	R9 = 85.8

97 CRI Color Metric Summary - 3000K*

TM-30-15	Rf = 93.9
	Rg = 100.2
CRI/CIE	Ra = 92.2
	R9 = 98.7
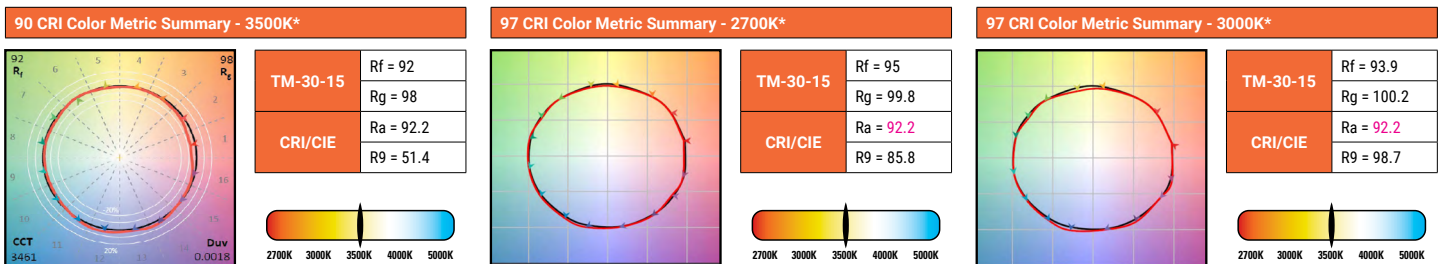
* Color values are based on haze reflector, other finishes and field results may vary.

LDRT6C

Manufacturer	Series	Nom. Size	Housing Aperture	Housing Catalog #	Ceiling Aperture	Retrofit Kit	Oversize Adapter Ring
Cooper	Portfolio	6	6.000	C6, MD6, H760, HD6, LD6	6" MIN 6-7/16" MAX	LDRT6C	None
	PDS	6	6.000	PD6			
Philips	Omega	6	6.250	OM6			
	Lightolier Calculite	6	6.313	S6, C6, B600			
	Capri	6	6.438	CM6			
Cooper	Portfolio	7	7.700	C7, HD7, MD7	6" MIN 8-9/16" MAX	LDRT6C	ABR8 (Accessory)
Juno	Indy Performance Series (Elate)	8	7.813	A8, C8, M8			
		8	7.813	CH8 and CV8			
		8	8.188	MX8 and TC908			
Lithonia	Gotham	8	8.438	AF and LG			
	Gotham	8	8.563	GRSF			
Philips	Omega	8	8.563	OM8			
Lithonia	Commercial	8	8.563	LF8, LP8			

LDRT67C

Manufacturer	Series	Nom. Size	Housing Aperture	Housing Catalog #	Ceiling Aperture	Retrofit Kit	Oversize Adapter Ring
Juno	Indy Performance Series (Elate)	6	6.563	A6, C6, M6	6-1/2" MIN 7-5/8" MAX	LDRT67C	ABR7 (included)
Juno		6	6.563	CH6, CV6, MX6, TC906			
Lithonia	Commercial	6	6.750	LF6, LP6			
Philips	Lightolier Lytecaster	6	6.750	1102			
Lithonia	Gotham	6	6.750	AF and LG			
Cooper	Portfolio CFL (New)	6	6.750	CD6			
Cooper	Halo	7	6.875	M700, H600, H803E			
Cooper	Halo Commercial	6	7.125	PD6 (New)			
Philips	Lightolier Calculite	7	7.500	S7 and CS7			
Cooper	PDS	7	7.625	GRSF			

Note: Retrofit kit includes oversize trim ring.

COOPER
Lighting Solutions

Photometric Data

MEDIUM 60° BEAM (H)

Test Number	P571658
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBMH
Lumens	1509
Efficacy	69.2 Lm/W
SC	0.94
UGR	12.5

CANDLEPOWER DISTRIBUTION — Downlight

1493 / 1120 / 747 / 373 / 0

0-deg   45-deg   90-deg

CONE OF LIGHT 0°

D	FC	L	W
4'	93.3	3.6	3.6
7'	30.5	6.4	6.4
9'	18.4	8.4	8.4
13'	8.8	12.2	12.2
16'	5.8	15	15

CANDELA TABLE

Degrees Vertical	Candela
0	1493
5	1461
15	1261
25	1015
35	539
45	177
55	54
65	19
75	6
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	947	62.8
0-40	1287	85.3
0-60	1482	98.2
0-90	1509	100
90-180	0	0
0-180	1509	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	30591
45	13699
55	5142
65	2516
75	1377
85	0

MEDIUM 55° BEAM (LI)

Test Number	P571659
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBMLI
Lumens	1847
Efficacy	84.7 Lm/W
SC	0.85
UGR	1.3

CANDLEPOWER DISTRIBUTION — Downlight

2311 / 1733 / 1156 / 578 / 0

0-deg   45-deg   90-deg

CONE OF LIGHT 0°

D	FC	L	W
4'	144.5	3.2	3.2
7'	47.2	5.8	5.8
9'	28.5	7.6	7.6
13'	13.7	10.8	10.8
16'	9	13.4	13.4

CANDELA TABLE

Degrees Vertical	Candela
0	2311
5	2281
15	1903
25	1364
35	591
45	104
55	9
65	5
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1359	73.6
0-40	1737	94
0-60	1841	99.7
0-90	1847	100
90-180	0	0
0-180	1847	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	30951
45	8063
55	898
65	623
75	508
85	0

NARROW 55° BEAM (H)

Test Number	P571660
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBNH
Lumens	1299
Efficacy	59.6 Lm/W
SC	0.78
UGR	6.9

CANDLEPOWER DISTRIBUTION — Downlight

1665 / 1249 / 833 / 416 / 0

0-deg   45-deg   90-deg

CONE OF LIGHT 0°

D	FC	L	W
4'	104.1	3	3
7'	34	5.4	5.4
9'	20.6	7	7
13'	9.9	10	10
16'	6.5	12.4	12.4

CANDELA TABLE

Degrees Vertical	Candela
0	1665
5	1618
15	1282
25	893
35	438
45	90
55	21
65	7
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	916	70.5
0-40	1191	91.7
0-60	1289	99.2
0-90	1299	100
90-180	0	0
0-180	1299	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	23572
45	6977
55	2045
65	921
75	508
85	0

NARROW 30° BEAM (LI)

Test Number	P571661
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBNLI
Lumens	1642
Efficacy	75.3 Lm/W
SC	0.53
UGR	0

CANDLEPOWER DISTRIBUTION — Downlight

3738 / 2804 / 1869 / 935 / 0

0-deg   45-deg   90-deg

CONE OF LIGHT 0°

D	FC	L	W
4'	233.6	2	2
7'	76.3	3.6	3.6
9'	46.2	4.6	4.6
13'	22.1	6.8	6.8
16'	14.6	8.4	8.4

CANDELA TABLE

Degrees Vertical	Candela
0	3738
5	3483
15	2027
25	973
35	412
45	59
55	5
65	2
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1320	80.4
0-40	1580	96.2
0-60	1639	99.8
0-90	1642	100
90-180	0	0
0-180	1642	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	21389
45	4590
55	459
65	311
75	0
85	0

COOPER
Lighting Solutions

Photometric Data

SHALLOW 85° BEAM (H)

Test Number	P571662
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBSH
Lumens	2151
Efficacy	98.7 Lm/W
SC	1.06
UGR	24.9

CANDLEPOWER DISTRIBUTION

Downlight

1125
844
563
281
0

180° 170° 160° 150° 140° 130° 120° 110° 100° 90° 80° 70° 60° 50° 40° 30° 20° 10° 0°

0-deg   45-deg   90-deg

CONE OF LIGHT

0°

D	FC	L	W
4'	70.3	4.2	4.2
7'	23	7.4	7.4
9'	13.9	9.4	9.4
13'	6.7	13.6	13.6
16'	4.4	16.8	16.8

CANDELA TABLE

Degrees Vertical	Candela
0	1125
5	1116
15	1021
25	864
35	694
45	526
55	343
65	168
75	40
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	790	36.7
0-40	1224	56.9
0-60	1936	90
0-90	2151	100
90-180	0	0
0-180	2151	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	45292
45	40764
55	32821
65	21818
75	8536
85	0

SHALLOW 70° BEAM (LI)

Test Number	P571663
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBSLI
Lumens	2226
Efficacy	102.1 Lm/W
SC	0.91
UGR	24.6

CANDLEPOWER DISTRIBUTION

Downlight

1405
1054
703
351
0

180° 170° 160° 150° 140° 130° 120° 110° 100° 90° 80° 70° 60° 50° 40° 30° 20° 10° 0°

0-deg   45-deg   90-deg

CONE OF LIGHT

0°

D	FC	L	W
4'	87.8	3.6	3.6
7'	28.7	6.2	6.2
9'	17.3	8	8
13'	8.3	11.6	11.6
16'	5.5	14.4	14.4

CANDELA TABLE

Degrees Vertical	Candela
0	1405
5	1383
15	1175
25	913
35	695
45	523
55	338
65	163
75	38
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	879	39.5
0-40	1315	59.1
0-60	2019	90.7
0-90	2226	100
90-180	0	0
0-180	2226	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	45256
45	40516
55	32324
65	21170
75	8006
85	0

WIDE 80° BEAM (H)

Test Number	P571664
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBWH
Lumens	1827
Efficacy	83.8 Lm/W
SC	1.16
UGR	17.8

CANDLEPOWER DISTRIBUTION

Downlight

1129
847
565
282
0

180° 170° 160° 150° 140° 130° 120° 110° 100° 90° 80° 70° 60° 50° 40° 30° 20° 10° 0°

0-deg   45-deg   90-deg

CONE OF LIGHT

0°

D	FC	L	W
4'	70.4	4.6	4.6
7'	23	8	8
9'	13.9	10.4	10.4
13'	6.7	15	15
16'	4.4	18.4	18.4

CANDELA TABLE

Degrees Vertical	Candela
0	1127
5	1122
15	1072
25	968
35	746
45	412
55	149
65	40
75	12
85	2
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	851	46.6
0-40	1312	71.8
0-60	1770	96.9
0-90	1827	100
90-180	0	0
0-180	1827	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	47030
45	31934
55	14260
65	5228
75	2499
85	1510

WIDE 80° BEAM (LI)

Test Number	P571665
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBWLI
Lumens	2087
Efficacy	95.7 Lm/W
SC	1.24
UGR	10.8

CANDLEPOWER DISTRIBUTION

Downlight

1339
1004
670
335
0

180° 170° 160° 150° 140° 130° 120° 110° 100° 90° 80° 70° 60° 50° 40° 30° 20° 10° 0°

0-deg   45-deg   90-deg

CONE OF LIGHT

0°

D	FC	L	W
4'	81.5	4.8	4.8
7'	26.6	8.6	8.6
9'	16.1	11	11
13'	7.7	16	16
16'	5.1	19.8	19.8

CANDELA TABLE

Degrees Vertical	Candela
0	1304
5	1311
15	1339
25	1249
35	946
45	438
55	76
65	7
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1074	51.4
0-40	1657	79.4
0-60	2075	99.4
0-90	2087	100
90-180	0	0
0-180	2087	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	58990
45	33942
55	7235
65	921
75	508
85	0

Photometric Data

SINGLE WALL WASH (LI)

Test Number	P571666
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBSWNLI
Lumens	2112
Efficacy	96.9 Lm/W
SC	1.29
UGR	25.8

CANDLEPOWER DISTRIBUTION

Downlight

1363, 1022, 682, 341, 0

0-deg (red dashed) 45-deg (blue) 90-deg (green)

CONE OF LIGHT

D	FC	L	W
4'	77	4.7	4.8
7'	25.1	8.2	8.6
9'	15.2	10.6	11.2
13'	7.3	15.3	16
16'	4.8	18.9	19.8

CANDELA TABLE

Degrees Vertical	Candela
0	1155
5	1121
15	1048
25	949
35	746
45	470
55	281
65	181
75	82
85	18
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	971	46
0-40	1515	71.7
0-60	2008	95.1
0-90	2112	100
90-180	0	0
0-180	2112	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	47358
45	36399
55	26819
65	23491
75	17305
85	11133

LENSED WALL WASH (H)

Test Number	P571667
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBLSWWH
Lumens	1704
Efficacy	78.2 Lm/W
SC	1.08
UGR	25

CANDLEPOWER DISTRIBUTION

Downlight

939, 704, 470, 235, 0

0-deg (red dashed) 45-deg (blue) 90-deg (green)

CONE OF LIGHT

D	FC	L	W
4'	58.6	4.4	4.2
7'	19.1	7.8	7.4
9'	11.6	10.1	9.6
13'	5.5	14.5	14
16'	3.7	17.9	17.2

CANDELA TABLE

Degrees Vertical	Candela
0	937
5	936
15	902
25	824
35	642
45	417
55	254
65	144
75	61
85	6
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	682	40
0-40	1049	61.6
0-60	1561	91.6
0-90	1704	100
90-180	0	0
0-180	1704	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	40857
45	32321
55	24315
65	18705
75	12878
85	3585

LENSED WALL WASH (LI)

Test Number	P571668
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBLSWWLI
Lumens	1753
Efficacy	80.4 Lm/W
SC	1.1
UGR	24.8

CANDLEPOWER DISTRIBUTION

Downlight

955, 716, 478, 239, 0

0-deg (red dashed) 45-deg (blue) 90-deg (green)

CONE OF LIGHT

D	FC	L	W
4'	59.6	4.6	4.2
7'	19.5	8	7.6
9'	11.8	10.3	9.8
13'	5.6	14.9	14.2
16'	3.7	18.5	17.4

CANDELA TABLE

Degrees Vertical	Candela
0	953
5	936
15	896
25	822
35	638
45	411
55	251
65	143
75	61
85	6
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	712	40.6
0-40	1094	62.4
0-60	1620	92.4
0-90	1753	100
90-180	0	0
0-180	1753	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	40426
45	31833
55	23961
65	18497
75	12942
85	3585

MEDIUM BEAM 45° CUTOFF 50° BEAM (H)

Test Number	P571669
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBMDH
Lumens	1493
Efficacy	68.5 Lm/W
SC	0.8
UGR	7.6

CANDLEPOWER DISTRIBUTION

Downlight

1962, 1472, 981, 491, 0

0-deg (red dashed) 45-deg (blue) 90-deg (green)

CONE OF LIGHT

D	FC	L	W
4'	122.6	3.2	3.2
7'	40	5.6	5.6
9'	24.2	7.2	7.2
13'	11.6	10.4	10.4
16'	7.7	12.8	12.8

CANDELA TABLE

Degrees Vertical	Candela
0	1962
5	1894
15	1517
25	1052
35	437
45	128
55	27
65	9
75	3
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1072	71.8
0-40	1351	90.5
0-60	1480	99.1
0-90	1493	100
90-180	0	0
0-180	1493	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	24203
45	9900
55	2542
65	1180
75	635
85	252

Photometric Data

MEDIUM BEAM 45° CUTOFF 50° BEAM (LI)	
Test Number	P571670
Housing	LDRT6C20D010
Module	EU6C10259035
Trim	6LBMDLI
Lumens	1549
Efficacy	71.1 Lm/W
SC	0.76
UGR	0

CANDLEPOWER DISTRIBUTION

Downlight

2316
1737
1158
579
0

180° 170° 160° 150° 140° 130° 120° 110° 100° 90° 80° 70° 60° 50° 40° 30° 20° 10° 0°

- - - 0-deg   —— 45-deg   —— 90-deg

CONE OF LIGHT

0°

D	FC	L	W
4'	144.6	3	3
7'	47.2	5.2	5.2
9'	28.6	6.8	6.8
13'	13.7	9.8	9.8
16'	9	12	12

CANDELA TABLE

Degrees Vertical	Candela
0	2314
5	2309
15	1837
25	1109
35	371
45	65
55	6
65	2
75	1
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1230	79.4
0-40	1486	95.9
0-60	1546	99.8
0-90	1549	100
90-180	0	0
0-180	1549	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	18792
45	5032
55	535
65	259
75	169
85	0

Photometric Multipliers (Nominal Lumen Values)

250 Lumen	500 Lumen	800 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen
0.17	0.33	0.44	0.51	0.78	1.00	1.26	1.48	1.74

4000 Lumen	4500 Lumen	5000 Lumen	5500 Lumen	6000 Lumen	6500 Lumen	7000 Lumen	7500 Lumen	8000 Lumen
2.02	2.34	2.65	2.96	3.20	3.35	3.52	4.14	4.47

9000 Lumen	10000 Lumen	11000 Lumen	12000 Lumen	13000 Lumen
4.76	5.09	5.87	6.33	6.96

Multipliers for relative lumen values with other series models.

CCT Multipliers − 90CRI

2400K	2700K	3000K	3500K	4000K	5000K
0.912	0.949	0.986	1	1.001	1.022

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers − 97CRI

2700K	3000K	3500K	4000K	5000K
0.889	0.955	1	1.016	1.07

Multipliers for relative lumen values with other series color temperatures.
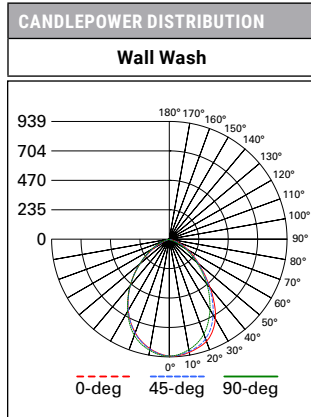
Color Finish Multipliers

Finish code	LI	H	WMH	WH	GPH	B	MW
Finish	Specular Clear	Semi-Specular Clear	Warm Haze	Wheat	Graphite Haze	Specular Black	Matte White
Multiplier	1.22	1	1.07	1.07	0.76	0.59	1.09

Multipliers for relative lumen values with other color finishes.

Photometric Data

WALL WASH

Test Number	P563510
Housing	LDRT6C20D010
Module	EU6209035
Trim	6LBLWWH
Lumens	1704
Efficacy	78.2 Lm/W
SC	1.08
UGR	0

CANDLEPOWER DISTRIBUTION

Wall Wash

0-deg   45-deg   90-deg

CANDELA TABLE

Degrees Vertical	Candela
0	937
5	936
15	902
25	824
35	642
45	417
55	254
65	144
75	61
85	6
90	0
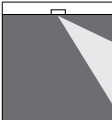
ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	682	40
0-40	1049	61.6
0-60	1561	91.6
0-90	1704	100
90-180	0	0
0-180	1704	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	40857
45	32321
55	24315
65	18705
75	12878
85	3585

Single Unit Footcandles 3" from wall (distance from fixture along wall)				
DD	•	1'	2'	3'
1'	8.3	6.4	3.3	1.3
2'	15.2	12.5	7.5	3.8
3'	16.4	14	9.2	5.3
4'	14.4	12.7	9.1	5.7
5'	11	10.1	7.8	5.3
6'	8	7.5	6.2	4.6
7'	5.7	5.5	4.7	3.8
8'	4.2	4	3.6	3
9'	3.1	3	2.8	2.4
10'	2.4	2.3	2.2	1.9

Multiple Unit Footcandles 3" from wall (spacing between fixtures)					
•	-- 3' --	•	•	-- 4' --	•
9.6	9.5	9.6	8.8	6.5	8.8
19.1	20.1	19.1	17.1	15.1	17.1
21.6	23.3	21.6	19.2	18.4	19.2
20	21.9	20	17.7	18.1	17.7
16.4	18.1	16.4	14.4	15.6	14.4
12.6	13.8	12.6	11.2	12.4	11.2
9.5	10.3	9.5	8.5	9.5	8.5
7.2	7.7	7.2	6.6	7.2	6.6
5.5	5.9	5.5	5.1	5.6	5.1
4.3	4.5	4.3	4	4.3	4

WALL WASH

Test Number	P563511
Housing	LDRT6C20D010
Module	EU6209035
Trim	6LBLWWLI
Lumens	1753
Efficacy	80.4 Lm/W
SC	1.1
UGR	0

CANDLEPOWER DISTRIBUTION

Wall Wash

0-deg   45-deg   90-deg

CANDELA TABLE

Degrees Vertical	Candela
0	953
5	936
15	896
25	822
35	638
45	411
55	251
65	143
75	61
85	6
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	712	40.6
0-40	1094	62.4
0-60	1620	92.4
0-90	1753	100
90-180	0	0
0-180	1753	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	40426
45	31833
55	23961
65	18497
75	12942
85	3585

Single Unit Footcandles 3" from wall (distance from fixture along wall)				
DD	•	1'	2'	3'
1'	8.3	6.4	3.2	1.3
2'	15.1	12.5	7.5	3.8
3'	16.1	13.9	9.2	5.3
4'	14.2	12.6	9.1	5.7
5'	10.9	10	7.8	5.4
6'	7.9	7.5	6.2	4.6
7'	5.7	5.5	4.8	3.8
8'	4.2	4	3.6	3
9'	3.1	3	2.8	2.4
10'	2.3	2.3	2.2	1.9

Multiple Unit Footcandles 3" from wall (spacing between fixtures)					
•	-- 3' --	•	•	-- 4' --	•
9.5	9.5	9.5	8.7	6.4	8.7
18.9	20	18.9	16.9	15.1	16.9
21.4	23.2	21.4	19	18.4	19
19.9	21.9	19.9	17.6	18.1	17.6
16.3	18	16.3	14.4	15.6	14.4
12.6	13.8	12.6	11.2	12.4	11.2
9.5	10.3	9.5	8.5	9.5	8.5
7.2	7.7	7.2	6.6	7.3	6.6
5.5	5.9	5.5	5.1	5.6	5.1
4.3	4.5	4.3	4	4.3	4

Photometric Data

View IES files

WALL WASH

Test Number	P563508
Housing	LDRT6C20D010
Module	EU6209035
Trim	6LBSWH
Lumens	1909
Efficacy	87.6 Lm/W
SC	1.18
UGR	0

CANDLEPOWER DISTRIBUTION — Wall Wash

0-deg   45-deg   90-deg
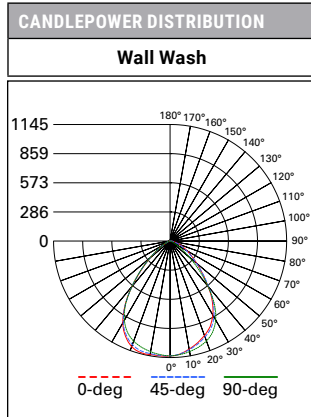
CANDELA TABLE

Degrees Vertical	Candela
0	1138
5	1123
15	1046
25	937
35	728
45	451
55	257
65	139
75	52
85	11
90	0
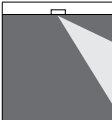
ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	868	45.5
0-40	1335	69.9
0-60	1817	95.2
0-90	1909	100
90-180	0	0
0-180	1909	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	46298
45	34942
55	24563
65	18005
75	11056
85	6919

Single Unit Footcandles — 3" from wall (distance from fixture along wall)

DD	•	1'	2'	3'
1'	7.6	5.9	3.1	1.2
2'	15.3	12.5	7.6	3.7
3'	17.7	15	9.9	5.4
4'	16.3	14.3	10.2	6.2
5'	12.5	11.5	9.1	6.2
6'	9	8.6	7.3	5.6
7'	6.5	6.3	5.6	4.6
8'	4.8	4.6	4.2	3.7
9'	3.6	3.5	3.2	2.9
10'	2.7	2.6	2.5	2.3

Multiple Unit Footcandles — 3" from wall (spacing between fixtures)

•	-- 3' --	•		•	-- 4' --	•
8.8	8.9	8.8		8	6.1	8
19	20.1	19		16.9	15.1	16.9
23.1	25	23.1		20.3	19.7	20.3
22.5	24.8	22.5		19.7	20.4	19.7
18.7	21	18.7		16.3	18.3	16.3
14.6	16	14.6		12.8	14.6	12.8
11.1	11.9	11.1		10	11.2	10
8.4	8.9	8.4		7.7	8.5	7.7
6.4	6.7	6.4		6	6.5	6
5	5.2	5		4.7	5	4.7

WALL WASH

Test Number	P563509
Housing	LDRT6C20D010
Module	EU6209035
Trim	6LBSWLI
Lumens	2112
Efficacy	96.9 Lm/W
SC	1.29
UGR	0

CANDLEPOWER DISTRIBUTION — Wall Wash

0-deg   45-deg   90-deg

CANDELA TABLE

Degrees Vertical	Candela
0	1155
5	1121
15	1048
25	949
35	746
45	470
55	281
65	181
75	82
85	18
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	971	46
0-40	1515	71.7
0-60	2008	95.1
0-90	2112	100
90-180	0	0
0-180	2112	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	47358
45	36399
55	26819
65	23491
75	17305
85	11133

Single Unit Footcandles — 3" from wall (distance from fixture along wall)

DD	•	1'	2'	3'
1'	11	8.7	4.6	1.9
2'	16.9	13.8	8.5	4.4
3'	18.4	15.7	10	5.2
4'	16.6	14.8	10.7	6.3
5'	12.7	11.7	9.5	6.6
6'	9.2	8.7	7.6	5.9
7'	6.6	6.3	5.8	4.9
8'	4.8	4.7	4.4	3.9
9'	3.6	3.5	3.4	3.1
10'	2.7	2.7	2.6	2.4

Multiple Unit Footcandles — 3" from wall (spacing between fixtures)

•	-- 3' --	•		•	-- 4' --	•
12.9	13.1	12.9		11.8	9.2	11.8
21.3	22.4	21.3		19	17	19
23.6	25.8	23.6		21	20	21
22.9	25.9	22.9		19.9	21.5	19.9
19.3	21.6	19.3		16.6	19.1	16.6
15.1	16.5	15.1		13.3	15.2	13.3
11.4	12.2	11.4		10.3	11.6	10.3
8.7	9.1	8.7		8	8.8	8
6.6	6.9	6.6		6.2	6.7	6.2
5.2	5.3	5.2		4.9	5.2	4.9

COOPER Lighting Solutions

Multi-line Order Information

SAMPLE ORDER NUMBER: **LDRT6C10D010TREM14**

Single line Ordering
Information Option

Invoice will indicate separate fixture components (housing, trim, module) and may ship from multiple CLS facilities in separate cartons.

Domestic Preferences [1]	Housing	Lumens [2]			
[Blank]=Standard **TAA**=Trade Agreements Act	**LDRT6C**=LED Downlight Retrofit for 6" to 6-7/16" or 8-9/16" with ABR8P openings **LDRT6CCP**=LED Downlight Retrofit for 6" to 6-7/16" or 8-9/16" with ABR8P openings, Chicago Plenum **LDRT67B**=LED Downlight Retrofit for 6-1/2" to 7-1/2" openings [21] **LDRT67BCP**=LED Downlight Retrofit for 6-1/2" to 7-1/2" openings, Chicago Plenum [21]	**02**=250 lumens **05**=500 lumens **08**=800 lumens **10**=1000 lumens **15**=1500 lumens **20**=2000 lumens	**25**=2500 lumens **30**=3000 lumens **35**=3500 lumens **40**=4000 lumens **45**=4500 lumens [3] **50**=5000 lumens [3]	**55**=5500 lumens [3] **60**=6000 lumens [3] **65**=6500 lumens [3] **70**=7000 lumens [3] **75**=7500 lumens [3] **80**=8000 Lumens [3]	**90**=9000 Lumens [3] **100**=10,000 Lumens [3] **110**=11,000 Lumens [3] **120**=12,000 Lumens [3] **130**=13,000 Lumens [3] **150**=15,000 Lumens [3]

Driver	Driver Options
D010 = 0-10V Dimming, 1% to 100%, 120V-277V, up to 7000 lumens (up to 3000 lumens for remote driver) **1D010** = 0-10V Dimming, 1% to 100%, 120V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **2D010** = 0-10V Dimming, 1% to 100%, 277V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **3D010** = 0-10V Dimming, 1% to 100%, 347V dedicated drivers for 800 to 4000 lumens; 250, 500, 4500 and above use step down transformer (250 to 7000 lumens for remote driver) 1 driver: 250-7000 / 2 drivers: 7500-12,000 / 3 drivers: 13,000-15,000	**Blank**=Integral driver **R**=Remote driver (offered with single driver, order remote driver separately) [6] **PD**=Plug in Driver (offered with single driver) [8]
D010TR = 0-10V Dimming, 5% to 100%, 120V-277V, 250- 4500 lumens (up to 3000 lumens for remote driver) **1D010TR** = 0-10V Dimming, 5% to 100%, 120V, 5000-9000 and 13,000 lumens (3500 to 4500 lumens for remote driver) **2D010TR** = 0-10V Dimming, 5% to 100%, 277V, 5000-9000 and 13,000 lumens (3500 to 4500 lumens for remote driver) **3D010TR** = 0-10V Dimming, 5% to 100%, 347V step down transformer, 250-9000 and 13,000 lumens (250 to 4500 lumens for remote driver) 1 driver: 250-4500 / 2 drivers: 5000-9000 / 3 drivers: 13,000	
DE010 = 0-10V Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1DE010** = 0-10V Dimming, 0% to 100%, 120V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **2DE010** = 0-10V Dimming, 0% to 100%, 277V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **3DE010** = 0-10V Dimming, 0% to 100%, 0-10V Dimming, 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver) 1 driver: 500-7000 / 2 drivers: 7500-12,000 / 3 drivers: 13,000-15,000	
D5LT = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1D5LT** = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **2D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 277V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **3D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100% 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver) 1 driver: 500-7000 / 2 drivers: 7500-12,000 / 3 drivers: 13,000-15,000	
DMX=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-4500 lumens (up to 3000 lumens for remote driver) (up to 3000 lumens for remote driver) [5] **1DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 and 13,000 lumens (3500 to 4500 lumens for remote driver) (3500 to 4500 lumens for remote driver) [5] **2DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 and 13,000 lumens (3500 to 4500 lumens for remote driver) (3500 to 4500 lumens for remote driver) [5] **3DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-9000 and 13,000 lumens, RJ45 Connection (800 to 4500 lumens for remote driver) [5] 1 driver: 800-4500 / 2 drivers: 5000-9000 / 3 drivers: 13,000	
DMXC5=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, up to 800-4500 lumens, RJ45 Connection (up to 3000 lumens for remote driver) [5] **1DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 and 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) [5] **2DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 and 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) [5] **3DMXCF**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 250-9000 and 13,000 lumens, RJ45 Connection (800 to 4500 lumens for remote driver) [5] 1 driver: 800-4500 / 2 drivers: 5000-9000 / 3 drivers: 13,000	
1DL2=Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only, 800-7500 lumens (800 to 3500 lumens for remote driver) **3DL2** = Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 347V step down transformer, 800-7500 lumens (800 to 3500 lumens for remote driver) 1 driver: 800-3500 / 2 drivers: 4000-7500	
DLE=Lutron Ecosystem dimming 1% to 100%, 120V-277V, 800-3500 lumens (up to 3000 lumens for remote driver) **1DLE**=Lutron Ecosystem dimming 1% to 100%, 120V, 4000-7500 lumens (3500 lumens for remote driver) **2DLE**=Lutron Ecosystem dimming 1% to 100%, 277V, 4000-7500 lumens (3500 lumens for remote driver) **3DLE**=Lutron Ecosystem dimming 1% to 100%, 347V step down transformer, 800-7500 lumens (800-3500 lumens for remote driver) 1 driver: 800-3500 / 2 drivers: 4000-7500	
DLV=Low voltage dimming driver (1-100%) for use with DLVP system 800-3000 lumens [6]	

Driver Options	Options [6] [27] [28] [30]	
Blank=Integral driver **R**=Remote driver (order remote driver separately) **PD**=Plug in Driver [8]	**EMBOD**=Bodine® Emergency Module with Remote Test Switch [10] **EMBOD6ST**=Bodine® 6W Self Test Emergency Module with Remote Test Switch **EM7**=7W Emergency Module with Remote Test Switch **EM14**=14W Emergency Module with Remote Test Switch **EMBOD7ST**=Bodine® Self Test Emergency Module [10]	**EMV7**=7W Low Voltage Emergency Module with Remote Test Switch [7] **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch [7] **ETRD**=Emergency transfer device [29] **WPST** =Factory installed Wavelinx (includes control module, sensor, cable, tile mount and ceiling mount sensor) [11] [13] **WLST** =Factory installed WaveLinx Lite Sensor Kit [11] [12]

Multi-line Order Information

SAMPLE ORDER NUMBER: **EU6C10209035**

Domestic Preferences [1]	Power Module	Lumen Levels [2]	CRI [2]	Color	
[Blank]=Standard TAA=Trade Agreements Act	EU6C=6-inch Universal LED Module	**For use with one driver** **0208IC**=250, 500, 800 lumens, IC Rated (for use with all drivers, min 500 lumen with DE010 and D5LT, min 800 lumens with DLVP, Lutron and DMX) **1025**= 1000, 1500, 2000, 2500 lumens **1015IC**=1000, 1500 lumens IC Rated **3040**=3000, 3500, 4000 lumens (For use with Lutron 3000-3500, DLVP 3000 lumens, DMX, D010, D010TR, D5LT and DE010 3000-4000) **4560**=4500, 5000, 5500, 6000 lumens (For use with DMX and D010TR 4500 lumens, D010, D5LT and DE010 4500-6000) [3] **6570**=6500, 7000 lumens (For use with D010, D5LT and DE010) [3] **For use with two drivers** **4080**=4000, 4500, 5000, 5500, 6000, 6500, 7000, 75000, 8000 lumens (For use with Lutron 4000-7500, D010TR & DMX 5000-8000, D010, D5LT & DE010 7500-8000 lumen) [3] **90120**=9000, 10000, 11000, 12000 lumens (D010, D5LT, DE010 to 9000-12,000 lumens, DMX and D010TR 9000 lumens) [3] **For use with three drivers** **130150**=13,000, 15000 lumens (D010, DE010, D5LT, 13,000-15,000 lumens, D010TR and DMX 13,000 lumens) [3]	**90**=90 CRI Minimum **97**=97 CRI Minimum	**90 CRI** **24**=2400K **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**97 CRI** **27**=2700K **30**=3000K

SAMPLE ORDER NUMBER: **6LBM2H**

Domestic Preferences [1]	Trim	Reflector		Flange	Finish
[Blank]=Standard TAA=Trade Agreements Act [15]	6LB=6-inch LED	**N**=Narrow, Spun Aluminum [8] **M**=50° Cutoff, Medium Beam Reflector, Spun Aluminum **MD**=45° Cutoff, Medium Beam Reflector, Spun Aluminum **W**=Wide, Spun Aluminum **S**=Shallow, Spun Aluminum **HY**=Hyperbolic medium beam [8] [22] **PS**=Non-Conductive Shallow, Injection Molded white [16] [17] **CS**=Cast Shallow, Die Cast Aluminum **BA**= Spun Aluminum Baffle [14]	**Wall Wash** **SWN**=Single wall wash, spun aluminum **DWN**=Double wall wash, spun aluminum **CW**=Corner wall wash, spun aluminum **LSWW**=Lensed single wall wash, spun aluminum **LDWW**=Lensed double wall wash, spun aluminum	**0**=White polymer trim ring **1**=Self flanged [18] **2**=White painted self flanged	**LI**=Specular Clear [19] **H**=Semi-Specular Clear [19] **WMH**=Warm Haze [19] **WH**=Wheat [19] **GPH**=Graphite Haze [19] **B**=Specular Black [19] **MW**=Matte White **MB**=Matte Black [20] **MMS**=Matte Metallic Silver [20]

REQUIRED if Remote Driver (R) is specified

SAMPLE ORDER NUMBER: **RC10010D010TREM7**

Domestic Preferences [1]	Remote Drivers	Lumens [2] [14]		
[Blank]=Standard TAA=Trade Agreements Act	**RC100**=Remote 100ft **RC75**=Remote 75ft **RC50**=Remote 50ft **RC25**=Remote 25ft **RC15**=Remote 15ft **RC5**=Remote 5ft **RC2**=Remote 2ft	**02**=250 lumens **05**=500 lumens **08**=800 lumens **10**=1000 lumens **15**=1500 lumens	**20**=2000 lumens **25**=2500 lumens **30**=3000 lumens **35**=3500 lumens **40**=4000 lumens **45**=4500 lumens	**50**=5000 lumens **55**=5500 lumens **60**=6000 lumens **65**=6500 lumens **70**=7000 lumens

Continued on next page.

Multi-line Order Information

Driver
D010 = 0-10V Dimming, 1% to 100%, 120V-277V, 250-3000 lumens **1D010** = 0-10V Dimming, 1% to 100%, 120V, 3500-7000 lumens **2D010** = 0-10V Dimming, 1% to 100%, 277V, 3500-7000 lumens **3D010** = 0-10V Dimming, 1% to 100%, 347V dedicated drivers for 800 to 3000 lumens; 250, 500, 3500-7000 lumens use step down transformer
D010TR = 0-10V Dimming, 5% to 100%, 120V-277V, 250- 3000 lumens **1D010TR** = 0-10V Dimming, 5% to 100%, 120V, 3500-4500 lumens **2D010TR** = 0-10V Dimming, 5% to 100%, 277V, 3500-4500 lumens **3D010TR** = 0-10V Dimming, 5% to 100% 347V step down transformer, 250-4500 lumens
DE010 = 0-10V Dimming, 0% to 100%, 120V-277V, 500-3000 lumens **1DE010** = 0-10V Dimming, 0% to 100%, 120V, 3500-7000 lumens **2DE010** = 0-10V Dimming, 0% to 100%, 277V, 3500-7000 lumens **3DE010** = 0-10V Dimming, 0% to 100%, 347V step down transformer, 500-7,000 lumens
D5LT = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V-277V, 500-3000 lumens **1D5LT** = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V, 3500-7,000 lumens **2D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 277V, 3500-7,000 lumens **3D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100% 347V step down transformer, 500-7,000 lumens
DMX = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-3000 lumens [5] **1DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 3500-4500 [5] **2DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 3500-4500 [5] **3DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-4500 [5]
DMXC5 = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V up to 800-3000 lumens, RJ45 Connection [5] **1DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 3500-4500 lumens, RJ45 Connection [5] **2DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 3500-4500 lumens, RJ45 Connection [5] **3DMXCF**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-4500 lumens, RJ45 Connection [5]
1DL2=Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only, 25' Max remote length, 800-3500 lumens **3DL2** = Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 347V step down transformer, 25' Max remote length, 800-3500 lumens
DLE = Lutron Ecosystem dimming 1% to 100%, 120V-277V, 25' Max remote length, 800-3000 lumens **1DLE**=Lutron Ecosystem dimming 1% to 100%, 120V, 25' Max remote length, 3500 lumens **2DLE**=Lutron Ecosystem dimming 1% to 100%, 277V, 25' Max remote length, 3500 lumens **3DLE**=Lutron Ecosystem dimming 1% to 100%, 347V, step down transformer, 25' Max remote length, 800-3500 lumens
DLV = Low voltage dimming driver (1-100%) for use with DLVP system, 800-3000 lumens [6]

Options [6] [27] [28] [30]		Controls
EMBOD=Bodine® Emergency Module with Remote Test Switch [10] **EMBOD6ST**=Bodine® 6W Self Test Emergency Module with Remote Test Switch **EM7**=7W Emergency Module with Remote Test Switch **EM14**=14W Emergency Module with Remote Test Switch	**EMBOD7ST**=Bodine® Self Test Emergency Module [10] **EMV7**=7W Low Voltage Emergency Module with Remote Test Switch [7] **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch [7] **ETRD**=Emergency transfer device [29]	**WPST**=Factory installed Wavelinx (includes control module, sensor, cable, tile mount and ceiling mount sensor) [11] [13] **WLST**=Factory installed WaveLinx Lite Sensor Kit [11] [12]

Accessories (Order separately) [24]		
TRM6P=White Metal Trim Ring [25] **LGSKT6IP66**=IP66 Gasket Kit **DT6RF**=Deco Trim Ring Frosted [26]	**Connected Lighting Systems** [6] [11] **WPST** = Field installed WaveLinx sensor kit [13] **WLST** = Field installed WaveLinx Lite Sensor Kit [12]	**Transformers** **H347**=H347 for 90/97CRI 5500 lumens and below; 98CRI 4000 lumens and below; D2W 4500 lumens and below; W2N 4000 lumens and below **H347200**=347 to 120V Step Down Transformer, 200VA

Notes:

1. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analysed under domestic preference requirements. Offered with spun aluminum narrow (N), medium (M) and wide (W) trims.

2. Nominal Lumens will vary depending on selected color, CRI, driver and reflector finish. Reference Multiplier tables.

3. Product is marked spacing. Reference table on page 4 for the spacing details.

5. DMX fixtures default to full on upon loss of DMX signal.

6. Not available with Chicago Plenum.

7. ULus listed only

8. Offered up to 7000 lumens for 90 and 97 CRI
- D010TR, DMX up to 4500 lumens for 90 and 97 CRI
- DLE, DL2 up to 3500 lumens for 90 and 97 CRI

10. Not available for W2N or 6500-7000 lumens.

11. Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.

12. WLST = WaveLinx Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx Lite system specifications)

13. WPST = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.

14. Black or white paint.

15. Spun aluminum only

16. PS available in self-flanged MW finish only

17. Offered up to 2000 lumens

18. Flange is the same finish as the reflector

19. Anodized or spun reflectors

20. Die cast only

21. 8-9/16″ requires ABR8 adapter ring

22. Offered with DLVP up to 3000 lumens for 90 and 97 CRI

24. Accessories sold separately will be separately analyzed under domestic preference.

25. Order trim with polymer trim ring.

26. Order with self flanged trim.

27. If using remote driver order battery and controls with the remote driver.

28. 120V-277V

29. Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others).
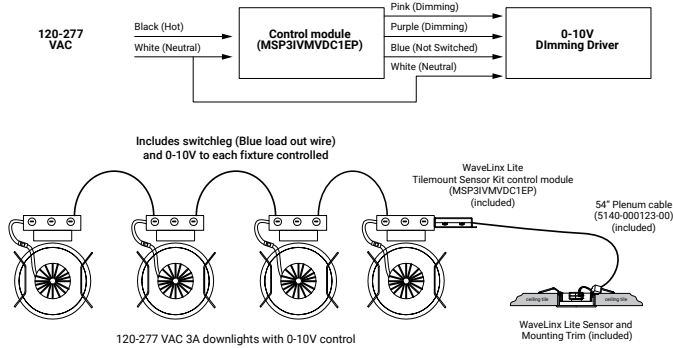
30. Non-IC

Connected Systems

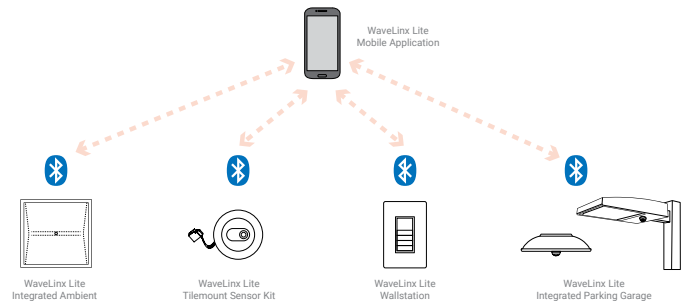### WaveLinx Lite - WLST Tilemount Sensor

- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx Lite Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details

Device Security | **Manual Dimmer** | **Occupancy Sensor** | **Daylighting Control** | **Manually Switched ON/OFF** | **Tuning Control** | **Lumen Maintenance Control** | **Scenes**

WaveLinx Lite WLST Tilemount Wiring Diagram

120-277 VAC

Black (Hot)
White (Neutral)

Control module (MSP3IVMVDC1EP)

Pink (Dimming)
Purple (Dimming)
Blue (Not Switched)
White (Neutral)

0-10V DImming Driver

Includes switchleg (Blue load out wire) and 0-10V to each fixture controlled

WaveLinx Lite Tilemount Sensor Kit control module (MSP3IVMVDC1EP) (included)

54" Plenum cable (5140-000123-00) (included)

120-277 VAC 3A downlights with 0-10V control

WaveLinx Lite Sensor and Mounting Trim (included)

WaveLinx Lite Bluetooth Enabled System

WaveLinx Lite Mobile Application

WaveLinx Lite Integrated Ambient | WaveLinx Lite Tilemount Sensor Kit | WaveLinx Lite Wallstation | WaveLinx Lite Integrated Parking Garage

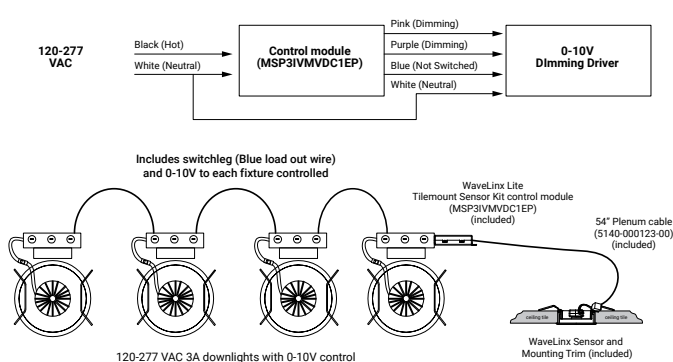### WaveLinx Wireless – WPST Tilemount Sensor

- WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
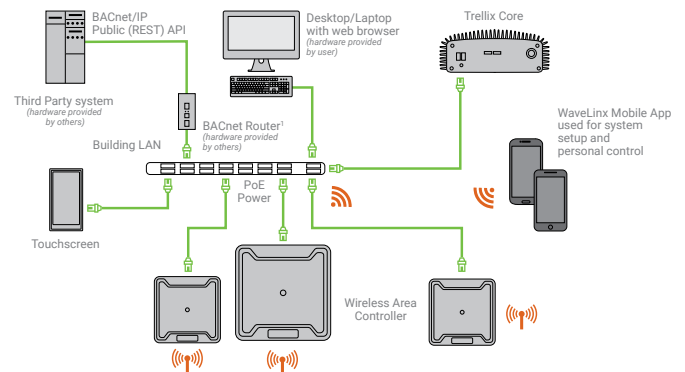- Stand-Alone Offices or Entire Building Network Installations

Downlights with tilemount sensor wireless communication
Highly efficient LED fixtures

Wireless Area Controller
Provides centralized coordination of multiple area control options

Wireless Wall Station/Receptacle
Provides customized wireless control of each area

Mobile Applications
Provides personalized, local control from a tablet or smartphone

WaveLinx mobile app settings

Manual Dimmer | **Occupancy Sensor** | **Lumen Maintenance Control** | **Daylighting Control**

Receptacle Control | **Tuning Control** | **Scheduling** | **Manually Switched ON/OFF** | **Demand Response**

WaveLinx Lite WPST Tilemount Wiring Diagram

120-277 VAC

Black (Hot)
White (Neutral)

Control module (MSP3IVMVDC1EP)

Pink (Dimming)
Purple (Dimming)
Blue (Not Switched)
White (Neutral)

0-10V DImming Driver

Includes switchleg (Blue load out wire) and 0-10V to each fixture controlled

WaveLinx Lite Tilemount Sensor Kit control module (MSP3IVMVDC1EP) (included)

54" Plenum cable (5140-000123-00) (included)

120-277 VAC 3A downlights with 0-10V control

WaveLinx Sensor and Mounting Trim (included)

WaveLinx Wireless Trellix Building Management Integration

BACnet/IP Public (REST) API | Desktop/Laptop with web browser *(hardware provided by user)* | Trellix Core

Third Party system *(hardware provided by others)*

BACnet Router[1] *(hardware provided by others)*

Building LAN

PoE Power

Touchscreen

WaveLinx Mobile App used for system setup and personal control

Wireless Area Controller

COOPER
Lighting Solutions

ID+ 3.5" x 3.5"

OVERLAP & TRIMLESS LED WALL WASH
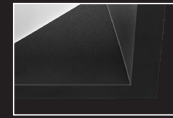
Quickship RED

FOCAL POINT®

RL
TW
WD
PoE

white painted
clear diffuse
warm diffuse

black painted
optional painted flange

Downlight companion
Adjustable Accent companion

DIMENSIONAL DATA
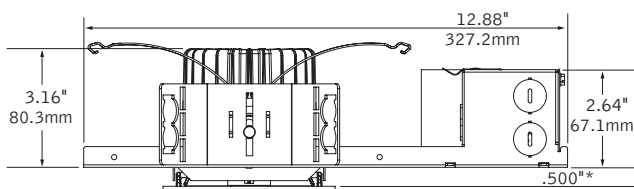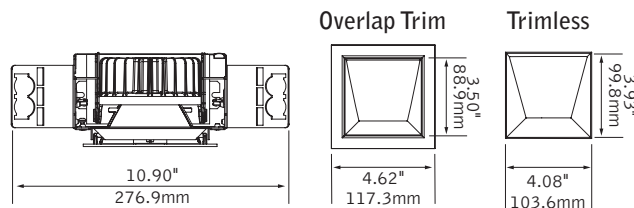
60° cut-off reflector

12.88"
327.2mm

2.64"
67.1mm

.500"*
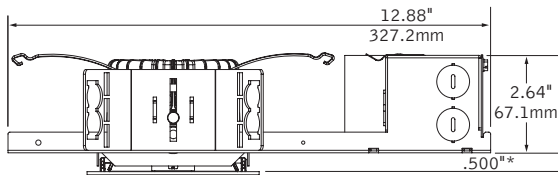
Housing height with DALI, Lutron & LZ1 drivers is 3.0"

50° cut-off reflector

3.16"
80.3mm

12.88"
327.2mm

2.64"
67.1mm

.500"*

*Field adjustability of ceiling thickness from 0.5" - 1.5".

10.90"
276.9mm

Overlap Trim

4.62"
117.3mm

3.50"
88.9mm

Trimless

4.08"
103.6mm

3.93"
99.8mm

FEATURES

Less than 2.64" low profile housing available.

50˚ cut-off and 60˚ cut-off reflector options available.

Tunable White: Supports human activity, well-being, and preferences with a light quality that evolves throughout the day.

Warm Dim: Lighting that enhances spaces with a warm glow, reminiscent of incandescent or halogen light sources.

PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

DISTRIBUTIONS

Overlap, Short 60˚,
Wall Wash

Trimless, Short 60˚,
Wall Wash
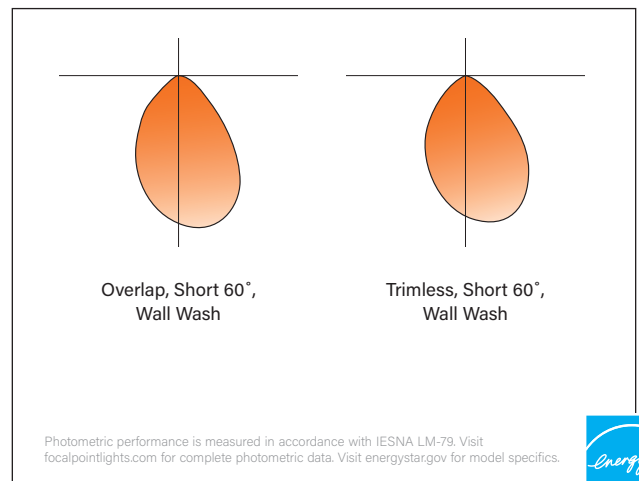
Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data. Visit energystar.gov for model specifics.

ENERGY STAR

STANDARD WHITE HOUSING DETAILS
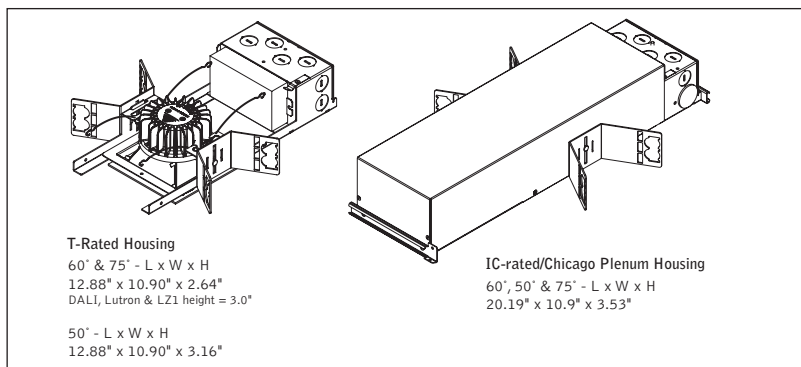
T-Rated Housing
60˚ & 75˚ - L x W x H
12.88" x 10.90" x 2.64"
DALI, Lutron & LZ1 height = 3.0"

50˚ - L x W x H
12.88" x 10.90" x 3.16"

IC-rated/Chicago Plenum Housing
60˚, 50˚ & 75˚ - L x W x H
20.19" x 10.9" x 3.53"

3.5" SQUARE WALL WASH PERFORMANCE TABLES

Based on Overlap, Tall Cone, Clear Diffuse.. Delivered lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

STANDARD WHITE				
CCT	Lumen Output	Delivered Lumens	System Watts	LPW
3500K, 80CRI	700L	712	11	64
	900L	913	16	56
	1100L	1104	19	58
	1300L	1299	22	58
	1500L	1533	26	59

STANDARD WHITE

HOUSING ORDERING

FLC33W

Housing Series
ID+ 3.5" Square   FLC33W   FLC33W

Trim Type
Square Die-Cast Overlap   SDO
Square Die-Cast Trimless   SDT

Color Options
Standard White, 80 & 90 CRI   SW
High 97 CRI   HC

Lumen Output
700 Lumen   700L
900 Lumen   900L
1100 Lumen   1100L
1300 Lumen   1300L
1500 Lumen   1500L

Voltage
120/277 Volt   UNV
(IC-rated housing: SW - 1100lm max., HC - 900lm max.
T-rated & TW housings: SW - 700lm max., HC not available.)
120V   120
277V   277
Low Voltage   LV
(IC-rated housing: SW - 1100lm max., HC - 900lm max.
T-rated & TW housings: SW - 700lm max., HC not available.)

Control System & Dimming Level
0-10V <1% Dimming   LZ1
0-10V - 1% Dimming   L11
0-10V - 10% Dimming   LD1
Low Voltage, PoE Compatible   LVN
(No driver. LV voltage only.)
Forward Phase (120V only)   LFP
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming   LH1
Lutron Hi-Lume - Forward Phase (120V only) -   LTE
1% Dimming
DALI <1% Dimming   DZ1
DALI - 1% Dimming   D11

Housing Type
IC-Rated / Airtight   IC
(SW - 1100lm max., HC - 900lm max. Not available with LTE.)
Thermally Protected, Non-IC   T
Thermally Protected, Non-IC Wood   TW
(Trimless only. Wood kit required)

Factory Options
Bar Hangers   BH
Chicago Plenum   CP
Outdoor Rated   OD
(LD1 driver and T-rated housing only. Not available with CP.
See dimming performance table on page 5.)

TRIM & LED MODULE

Aperture
3.5" Square Reflector   LC33
3.5" Square AirtightReflector   LC33AT

Trim Type
Square Die-Cast Overlap   SDO
Square Die-Cast Trimless   SDT

Color Options
(Trim & housing must match)
Standard White, 80 & 90 CRI   SW
High 97 CRI   HC

Lumen Output
(Trim & housing output must match)
700 Lumen   700L
900 Lumen   900L
1100 Lumen   1100L
1300 Lumen   1300L
1500 Lumen   1500L

Color Temperature
(Add 9 for 90 CRI or H for 97 CRI. Leave blank for 80 CRI.
Examples: 2700K, 97 CRI = H27K. 2700K, 80 CRI = 27K.)
2700K, 80/90/97+ CRI   _27K
3000K, 80/90/97+ CRI   _30K
3500K, 80/90/97+ CRI   _35K
4000K, 80/90/97+ CRI   _40K

Optic
Tall Cone with 50˚ cut-off   WWT
Short Cone with 60˚ cut-off   WWS

Finish
Clear Diffuse   CD
Warm Diffuse   WD
Black   BK
White   WH

Optional Flange Finish
(Overlap CD & WD finish only) (For matching finishes leave blank)
Black Painted   BP
White Painted   WP

ACCESSORIES
Trimless Wood Ceiling Installation Kit   LC33-
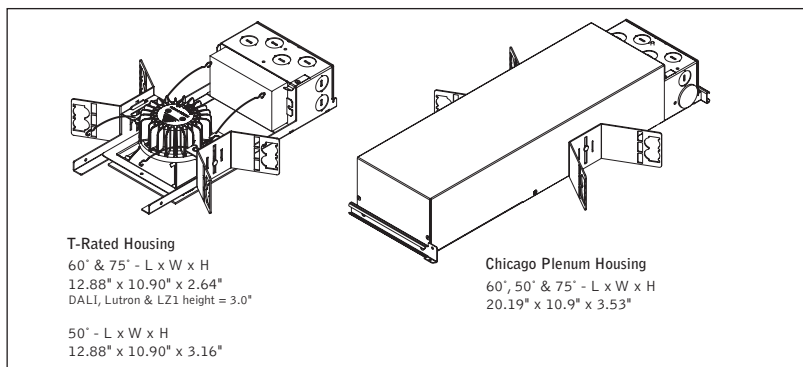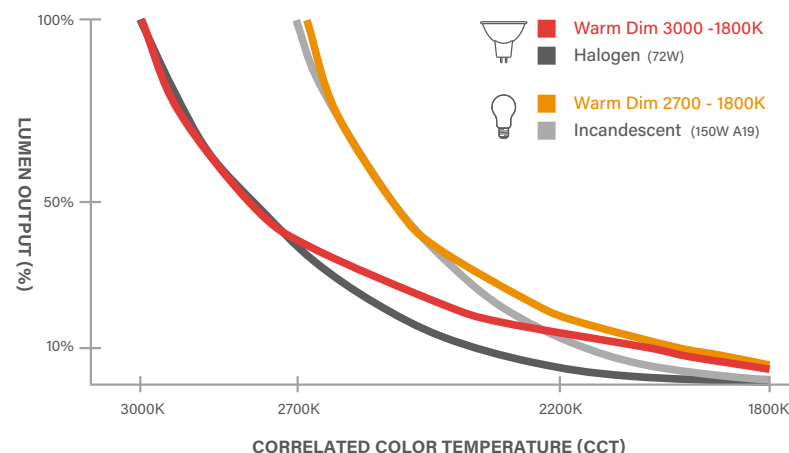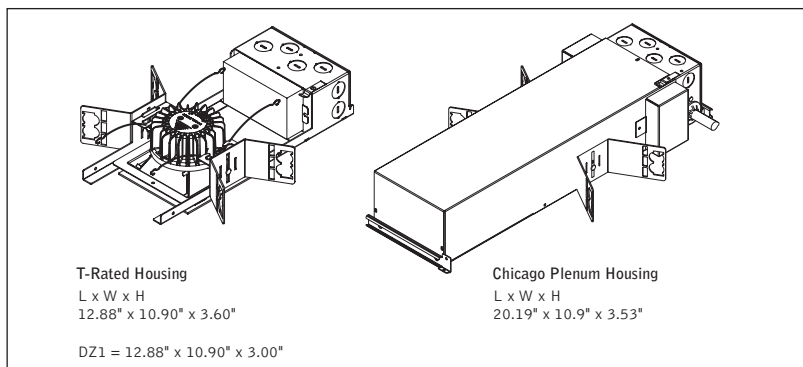(One kit recommended per 10 downlights)   WOOD-KIT

WARM DIM HOUSING DETAILS

T-Rated Housing
60˚ & 75˚ - L x W x H
12.88" x 10.90" x 2.64"
DALI, Lutron & LZ1 height = 3.0"

50˚ - L x W x H
12.88" x 10.90" x 3.16"

Chicago Plenum Housing
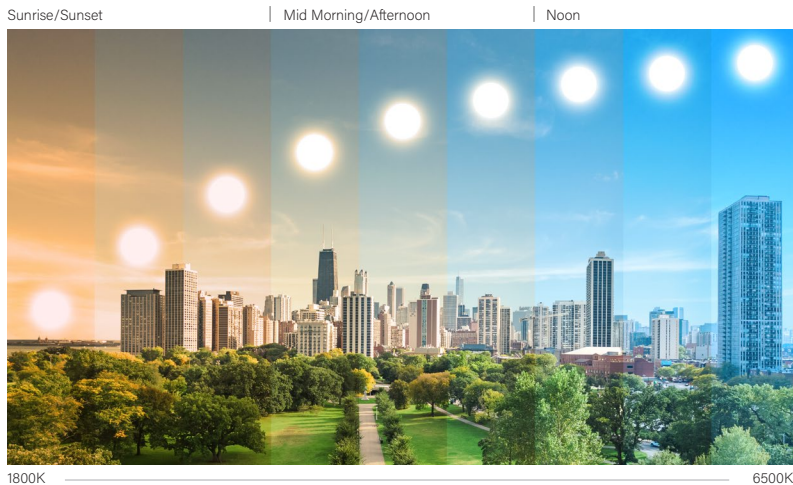60˚, 50˚ & 75˚ - L x W x H
20.19" x 10.9" x 3.53"

3.5" SQUARE WALL WASH PERFORMANCE TABLE

Based on Overlap, Tall Cone, Clear Diffuse.. Delivered lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

WD WARM DIM				
CCT Range	**Lumen Output**	**Delivered Lumens**	**System Watts**	**LPW**
2700 - 1800K	1100L	980	25	39
3000 - 1800K	1100L	1001	25	40

The 3000K to 1800K and 2700K to 1800K ranges mimic the black body curves of halogen and incandescent light sources, respectively.

Warm Dim 3000 -1800K
Halogen (72W)
Warm Dim 2700 - 1800K
Incandescent (150W A19)

LUMEN OUTPUT (%)

CORRELATED COLOR TEMPERATURE (CCT)

WD WARM DIM

HOUSING ORDERING

Housing Series		**FLC33W**
ID+ 3.5" Square	FLC33W	
Trim Type		_____
Square Die-Cast Overlap	SDO	
Square Die-Cast Trimless	SDT	
Color Options		**WDM**
Warm Dim	WDM	
Lumen Output		**1100L**
1100 Lumen	1100L	
Voltage		_____
120V	120	
277V	277	
Control System & Dimming Level		_____
0-10V <1% Dimming	LZ1	
0-10V - 1% Dimming	L11	
0-10V - 10% Dimming	LD1	
Forward Phase (120V only)	LFP	
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1	
Lutron Hi-Lume - Forward Phase (120V only) - 1% Dimming	LTE	
DALI <1% Dimming	DZ1	
DALI - 1% Dimming	D11	
Housing Type		_____
IC-Rated / Airtight (LTE not available.)	IC	
Thermally Protected, Non-IC	T	
Thermally Protected, Non-IC Wood (Trimless only. Wood kit required)	TW	
Factory Options		
Bar Hangers	BH	_____
Chicago Plenum	CP	_____
Outdoor Rated	OD	_____

(LD1 driver and T-rated housing only. Not available with CP. See dimming performance table on page 5.)

TRIM & LED MODULE

Aperture		_____
3.5" Square Reflector	LC33	
3.5" Square AirtightReflector	LC33AT	
Trim Type		_____
Square Die-Cast Overlap	SDO	
Square Die-Cast Trimless	SDT	
Color Options		**WDM**
Warm Dim	WDM	
Lumen Output		**1100L**
1100 Lumen	1100L	
Color Temperature		_____
Warm Dim: 2700-1800K, 90+ CRI	92718W	
Warm Dim: 3000-1800K, 90+ CRI	93018W	
Optic		_____
Tall Cone with 50˚ cut-off	WWT	
Short Cone with 60˚ cut-off	WWS	
Finish		_____
Clear Diffuse	CD	
Warm Diffuse	WD	
Black	BK	
White	WH	
Optional Flange Finish		_____

(Overlap CD & WD finish only) (For matching finishes leave blank)

Black Painted	BP	
White Painted	WP	

ACCESSORIES

Trimless Wood Ceiling Installation Kit (One kit recommended per 10 downlights)	LC33-WOOD-KIT	_____

TUNABLE WHITE HOUSING DETAILS

T-Rated Housing
L x W x H
12.88" x 10.90" x 3.60"

DZ1 = 12.88" x 10.90" x 3.00"

Chicago Plenum Housing
L x W x H
20.19" x 10.9" x 3.53"

3.5" SQUARE WALL WASH PERFORMANCE TABLES

Based on Overlap, Tall Cone, Clear Diffuse.. Delivered lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

TW	TUNABLE WHITE			
CCT	**Lumen Output**	**Delivered Lumens**	**System Watts**	**LPW**
2700K (2700-5000K & 2700-6500K)	700L	711	16	43
	900L	901	21	43
1800K (1800-4000K)	700L	709	24	30

The Comfort (1800K-4000K), Preference (2700K-5000K), and Activity (2700K-6500K) ranges give specifiers the tools to ehnance spaces, mood, and alertness.

DAYLIGHT RANGE

Sunrise/Sunset | Mid Morning/Afternoon | Noon

1800K   —————————————————————————   6500K

TW TUNABLE WHITE

HOUSING ORDERING

Housing Series		**FLC33W**
ID+ 3.5" Square	FLC33W	
Trim Type		_____
Square Die-Cast Overlap	SDO	
Square Die-Cast Trimless	SDT	
Color Options		_____
Tunable White: 1800-4000K (700L only)	1840T	
Tunable White: 2700-5000K	2750T	
Tunable White: 2700-6500K	2765T	
Lumen Output		_____
700 Lumen	700L	
900 Lumen	900L	
Voltage		_____
120V	120	
277V	277	
Control System & Dimming Level		_____
0-10V <1% Dimming	LZ1	
Lutron T-Series <1% Dimming	LTZ	
DALI <1% Dimming	DZ1	
(Requires 2 addresses, one for light intensity & one for color tuning)		
Housing Type		_____
Thermally Protected, Non-IC	T	
Thermally Protected, Non-IC Wood (Trimless only. Wood kit required)	TW	
Factory Options		
Bar Hangers	BH	_____
Chicago Plenum (2750T & 2765T only.)	CP	_____

TRIM & LED MODULE

Aperture		_____
3.5" Square Reflector	LC33	
3.5" Square AirtightReflector	LC33AT	
Trim Type		_____
Square Die-Cast Overlap	SDO	
Square Die-Cast Trimless	SDT	
Color Options (Trim & housing must match)		_____
Tunable White: 1800-4000K	1840T	
Tunable White: 2700-5000K	2750T	
Tunable White: 2700-6500K	2765T	
Lumen Output (Trim & housing must match)		_____
700 Lumen	700L	
900 Lumen	900L	
Color Temperature		_____
Tunable White: 1800-4000K, 90+ CRI	91840T	
Tunable White: 2700-5000K, 90+ CRI	92750T	
Tunable White: 2700-6500K, 90+ CRI	92765T	
Optic		_____
Tall Cone with 50° cut-off	WWT	
Short Cone with 60° cut-off	WWS	
Finish		_____
Clear Diffuse	CD	
Warm Diffuse	WD	
Black	BK	
White	WH	
Optional Flange Finish (Overlap CD & WD finish only) (For matching finishes leave blank)		_____
Black Painted	BP	
White Painted	WP	

ACCESSORIES

Trimless Wood Ceiling Installation Kit (One kit recommended per 10 downlights)	LC33-WOOD-KIT	_____

HOUSING SPECIFICATIONS

Construction

Thermally protected housing for new construction applications. Insulation to be kept 3" away from housing. Type IC inherently protected, suitable for direct contact with insulation. Restrictive airflow per ASTM-E283. Butterfly brackets allow mounting to 1/2" emt. Order bar hangers as an accessory. Die–cast aluminum heat sink designed for maximum thermal dissipation. Die-formed housing and integral junction box with (7) 1/2" pry outs. Accommodates ceiling thicknesses up to 0.5" standard, field adjustable up to 1.5" thickness. For thicker ceiling consult factory. Fixture will not exceed 5 lb. LC33AT trim is inherently airtight and may be used to obtain airtight rating when used with IC-rated or thermally protected, non-IC (T) housings.

Electrical

Choice of constant current dimming drivers. Power factor > .9 typical. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

Labels

UL and cUL Listed. Suitable for Dry, Damp or Wet Locations, indoor use only. Specify Outdoor rated (OD) for outdoor recessed ceiling applications.

Outdoor Rated (OD) Driver Dimming Performance table

Lumen Output	Minimum Dimming Level
700L	20%
900L	16%
1100L	13%
1300L	10%
1500L	10%

Lumen Maintenance

Reported:	L70 at >55,000 hours	Calculated:	L70 at 204,000 hours
	L90 at >55,000 hours		L90 at 59,000 hours

Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

Reliability

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty

LED System rated for operation in ambient environments up to 25°C. 5-year limited warranty. Fixture with Outdoor rated option must be installed in a covered ceiling and is warrantied for operation in ambient environments between -20˚C to +40˚C.

TRIM & LED SPECIFICATIONS

LED System

Proprietary array incorporates premium LEDs on a robust platform. May be specified in 2700K, 3000K, 3500K or 4000K, Warm Dimming (2700K-1800K and 3000K-1800K), or Tunable White (1800K-4000K, 2700K-5000K and 2700K-6500K), CRI>80, >90 or 97. 3500K and 4000K with CRI>90 have a cyanosis observation index (COI) of 3.3 or less. Color accuracy within 2 SDCM (Warm Dimming from 3-5 SDCM). Aluminum heat sink provides appropriate thermal management.

Aesthetics

Die–formed aluminum reflector ensures glare free optics. Torsion springs pull trim tight to the ceiling with no visible fasteners within the trim.

Optics

50-degree or 60-degree cut–off to light source and its image. Wall wash features acrylic diffuser to provide smooth illumination down the wall.

Color Lumen Multipliers

CRI	STANDARD WHITE CCT				WARM DIM CCT RANGES		TUNABLE WHITE CCT RANGES		
	2700	3000	3500	4000	2700-1800K	3000-1800K	1800-4000K	2700-5000K	2700-6500K
80+	0.92	0.98	1.00	1.01	-	-	-	-	-
90+	0.79	0.83	0.82	0.84	0.89	0.91	1.00	1.00	1.00
97	0.67	0.72	0.73	0.76	-	-	-	-	-

Distribution Lumen Multipliers

Trim Type	Optic	Distribution	Multiplier
Square Die-Cast Trimless [SDT]	Tall Cone with 50˚ cut-off [WWT]	Wall Wash	1.09
	Short Cone with 60˚ cut-off [WWS]	Wall Wash	1.32
Square Die-Cast Overlap [SDO]	Tall Cone with 50˚ cut-off [WWT]	Wall Wash	1.02
	Short Cone with 60˚ cut-off [WWS]	Wall Wash	1.22

Color Lumen Multipliers

Trim Type	Optic	Color	Multiplier
ALL	Tall Cone with 50˚ cut-off [WWT]	Clear Diffuse [CD]	1.00
		Warm Diffuse [WD]	0.94
		White [WH]	1.45
		Black [BK]	0.59
	Short Cone with 60˚ cut-off [WWS]	Clear Diffuse [CD]	1.00
		Warm Diffuse [WD]	0.92
		White [WH]	1.32
		Black [BK]	0.68

How To Use Lumen Multipliers

Formula:
(Lumen Output Value) x (Color Temperature & CRI) x (Distribution) x (Color)

Example:
LC33-SDO-SW-1100L-935K-WWS-WH
(1100) x (0.81) x (1.32) x (1.32) ≈ 1552lm (estimated delivered lumens)

Multiplier charts are provided to aid with estimation of lumen levels across options. Apply multipliers against ordered Lumen Output to estimate Delivered Lumens. An estimation should make use of all tables through consecutive application of three multipliers. Refer to IES files for most accurate photometric information.

ID+ 3.5" x 3.5"

LED WALL WASH

WALL WASH DESIGN GUIDE - 1500 LUMEN, SHORT CONE (WWS) EXAMPLE

Calculation Point Distance from Ceiling		Fixtures 3' from Wall									Fixtures 3.5' from Wall									Fixtures 4' from Wall								
		3' OC			3.5' OC			4' OC			3' OC			3.5' OC			4' OC			3' OC			3.5' OC			4' OC		
0 - 1'	3"	6	6	6	7	6	7	7	6	7	5	5	5	5	5	5	6	5	6	4	4	4	4	4	4	5	5	5
	6"	9	9	9	10	9	9	10	9	10	7	7	7	8	7	7	8	7	7	6	6	6	6	6	6	6	6	6
	9"	13	14	13	14	13	13	14	13	14	10	11	10	10	10	10	10	10	10	8	9	8	8	8	8	8	9	8
	12"	17	18	17	17	17	17	17	16	17	13	14	12	13	13	13	12	13	12	10	11	10	10	10	10	10	10	10
2'		18	20	19	19	19	19	19	18	19	14	15	14	14	14	14	14	14	14	11	12	11	11	12	11	11	11	11
3'		25	28	25	24	26	24	23	24	23	19	21	19	18	20	18	17	18	17	15	17	15	14	15	14	14	15	14
4'		28	32	28	26	29	26	24	26	24	23	27	23	21	24	21	20	22	20	18	21	18	17	20	17	16	18	16
5'		25	29	25	23	27	23	22	24	22	23	26	23	21	25	21	20	23	20	20	23	20	19	22	19	17	20	17
6'		20	23	20	19	22	19	18	20	18	20	23	20	19	22	19	18	20	18	19	22	19	18	20	18	17	19	17
7'		17	19	17	16	18	16	15	17	15	17	19	17	16	18	16	15	17	15	17	19	17	16	18	16	15	17	15
8'		14	15	14	13	15	13	12	14	12	15	16	15	14	15	14	13	15	13	15	16	15	14	16	14	13	15	13
9'		12	13	12	11	12	11	11	12	11	12	14	12	12	13	12	11	13	11	13	14	13	12	13	12	11	13	11
10'		8	8	8	7	8	7	7	8	7	8	9	8	8	9	8	7	8	7	9	9	9	8	9	8	8	9	8
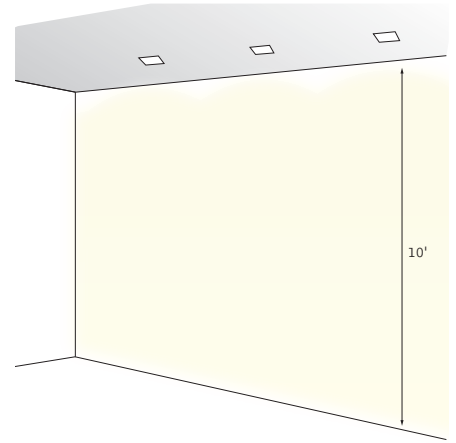
IES File: FLC33W-SDO-SW-1500L-SDO-SW-1500L-35K-WWS-CD. Parameters: 80/50/20 reflectances, LLF=.09.

WALL WASH DESIGN GUIDE - 1500 LUMEN, TALL CONE (WWT) EXAMPLE

Calculation Point Distance from Ceiling		Fixtures 3' from Wall									Fixtures 3.5' from Wall									Fixtures 4' from Wall								
		3' OC			3.5' OC			4' OC			3' OC			3.5' OC			4' OC			3' OC			3.5' OC			4' OC		
0 - 1'	3"	4	4	4	4	4	4	5	4	5	3	3	3	4	3	4	4	4	4	3	3	3	3	3	3	3	3	3
	6"	6	6	6	6	6	6	7	6	7	4	4	4	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4
	9"	9	10	9	10	9	10	10	9	10	7	7	7	7	7	7	7	7	7	5	6	5	6	6	5	6	6	6
	12"	12	13	12	12	12	12	13	12	12	9	10	9	9	9	9	9	9	9	7	8	7	7	7	7	7	8	7
2'		14	15	14	14	14	14	14	14	14	10	11	10	11	11	11	11	11	11	8	9	8	8	9	8	8	9	8
3'		17	18	17	16	17	16	16	16	16	13	15	13	13	14	13	13	13	13	11	12	11	10	11	10	10	11	10
4'		19	22	19	18	19	18	17	18	17	15	17	15	14	16	14	13	15	13	12	14	12	12	13	12	11	12	11
5'		19	23	19	18	20	18	17	18	17	16	19	16	15	17	15	14	16	14	13	16	13	13	14	13	12	13	12
6'		17	20	17	16	19	16	15	17	15	16	19	16	15	17	15	14	16	14	14	16	14	13	15	13	12	14	12
7'		15	17	15	14	16	14	13	15	13	14	17	15	14	16	14	13	15	13	14	16	14	13	15	13	12	14	12
8'		13	14	13	12	14	12	11	13	11	13	14	13	12	14	12	11	13	11	13	14	13	12	14	12	11	13	11
9'		11	12	11	10	12	10	10	11	10	11	13	11	11	12	11	10	12	10	11	13	11	11	12	11	10	12	10
10'		7	8	7	7	8	7	6	7	6	8	8	8	7	8	7	7	8	7	8	9	8	7	8	7	7	8	7

IES File: FLC33W-SDO-SW-1500L-SDO-SW-1500L-35K-WWT-CD. Parameters: 80/50/20 reflectances, LLF=.09.

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — Ideal for applications requiring attractive die-cast aluminum signage, superior illumination and low energy consumption.

CONSTRUCTION — Precision-molded, die-cast aluminum construction — ultra-slim, compact housing. Fine-grain brushed aluminum faceplate with matte black electrostatic polymeric trim. Clear lacquer finish on brushed face inhibits fingerprints and other surface contaminants.

All electronics located inside housing.

Fully overlapping light seal prevents light leaks. Universal directional chevron knockouts are completely concealed and easily removed. Hinged faceplate and spring latches for easy lamp compartment access, no exposed hardware.

Letters 6" high with 3/4" stroke, with 100 ft viewing distance rating, based upon UL924 standards.

U.S. Patent No. 5,739,639, 5,954,423 and 6,502,044. Canada Patent No. 2,204,218. Other patents pending.

OPTICS — Lamp is constructed using new LED technology. Provides perfectly uniform illumination to meet 3/4" letter stroke required by code.

The typical life of the exit LED lamp is 10 years, based on continuous operation. Unique LED lamp platform accommodates both single-face and double-face exits.

Low energy consumption — red exit consumes std .81W, 1.3W (120V), green exit consumes std is 1W, 1.5W (120V). Universal input voltage capabilities (120V through 277V, 50 or 60 HZ).

ELECTRICAL — Solid-state electronic elements to eliminate risk of electromechanical failures.

Surge protection meets ANSI/IEEE C62.41 category B and IEC 1000 immunity standards for high voltage surges, electrostatic discharges, high frequency electrical fast transients and line voltage dips/swells.

Emergency Operation (for EL N option only): Battery: Sealed, maintenance-free nickel-cadmium battery delivers 90 minutes capacity to lamp.

Self-diagnostics (SD option only): Two-state constant-current charger maximizes battery life and automatically recharges after battery discharge. Test switch provided for manual testing.

Self-diagnostic testing for five minutes every 30 days, 30 minutes at 180-day interval, and 90 minutes annually.

Diagnostic evaluation of LED light source, AC to DC transfer, charging and battery condition.

Continuously monitors AC functionality.

Low voltage disconnect prevents excessive deep discharge that can permanently damage the battery.

Single-point microcomputer control for all electronic features.

Crystal oscillator timing system with watchdog protection for precision accuracy.

AC/LVD reset allows battery connection before AC power is applied and prevents battery damage from deep discharge.

Brownout protection is automatically switched to emergency mode when supply voltage drops below 80% of nominal.

Single multi-chromatic LED indicator to display two-state charging, test activation and three-state diagnostic status.

Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection.

INSTALLATION — Universal mounting (top, end or back). Double face available with top or end mounting only. LRE: Trim ring has 3/4" depth adjustment to ensure a flush fit against the surface. Protrudes 1/10" from the surface. No exposed hardware.

Die-cast aluminum canopy provided for surface mount only.

LE surface

Signature®

Die-Cast Aluminum Exits

LE and LRE

LRE recessed

CERTIFIED IN TITLE 20 † · LED · BAA

LISTINGS — UL damp location listed 50°F - 104°F (10°C - 40°C). Meets UL 924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards. North Carolina Department of Insurance.

BUY AMERICAN ACT — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. (Battery is prorated.) This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

† Exit Signs Certified in the CA Title 20 Appliance Efficiency Database.

ORDERING INFORMATION — For shortest lead times, configure products using **bolded options**.

Example: LE S 1 R EL N SD

Series		Face type		Housing color		Number of faces		Letter color		Input voltage		Operation		Options	
LE	LED, surface mount	**S**	Stencil	**(blank)**	Matte black, brushed aluminum face	**1**	Single face	**R**	Red	**(blank)**	Universal input voltage (120-277V, 50 or 60 HZ)	**(blank)**	AC only	(blank)	None
LRE	LED, recessed	P	Panel [1]	BZ	Dark bronze	**2**	Double face [2]	**G**	Green			EL N	Nickel-cadmium battery back-up	TP	Two tamper proof Torx-head screws
				W	White							X2	Lamp wired on two separate AC circuits [3]	VR	Vandal-resistant shield (1/8" thick polycarbonate) [4]
				B	Matte black									FI FA	Field selectable fire alarm interface or flashing emergency operation with intermittent audible alarm (one flash per minute) [5]
														FI	Fire alarm flashing interface [6]
														FA	Flashing emergency operation and intermittent audible alarm [7]
														SD	Self-diagnostics [7]
														BAA	BAA Buy America(n) Act Compliant [8]

Accessories: *Order as separate catalog number.*

ELA US12	12" stem kit (see spec sheet ELA-StemKits) [2,9]	ELA ERK	Recess mounting rough-in kit for LRE only (see spec sheet ELA-ERK)
ELA WG1	Back-mount wire guard (see spec sheet ELA-WG) [2]		

Notes
1. Panel face available for special wording only (see Custom Signage spec sheet).
2. Not available with LRE models.
3. UL Listed as emergency lighting.
4. VR contains tamper proof screws.
5. Available with SD option only.
6. Available with AC only or EL N operation only.
7. Available with EL N option only.
8. BAA only available for LE.
9. Add W for white.

SPECIFICATIONS

ELECTRICAL				
Primary circuit				
Type	Typical LED life[1]	Supply voltage	Input watts	Max. amps
Red LED AC only	10 Years	120	0.81	0.05
		277	1.2	0.06
Green LED AC only	10 Years	120	1.05	0.05
		277	1.32	0.06
Red LED emergency	10 Years	120	1.3	0.06
		277	1.4	0.07
Green LED emergency	10 Years	120	1.5	0.07
		277	1.7	0.07

BATTERY			
Sealed Nickel-Cadmium			
Shelf life[2]	Typical life[2]	Maintenance[3]	Temperature range[4]
3 years	6-8 years	none	50°F – 104°F (10°C – 40°C)

Notes

1 The typical life of the exit LED lamp is 10 years, based on continuous operation.

2 At 77°F (25°C).

3 All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

4 Temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity.

SELF-DIAGNOSTICS
(SD option only)

- Five-minute test every 30 days
- 30-minute test every six months
- 90-minute test annually
- Diagnostics evaluate the battery, lamp, charger and AC to DC transfer.

Condition	Indication
Normal mode	Steady green
Self-testing	Flashing green
Emergency mode	Off
Hi-charge	Steady red
Battery failure	Single-flash red
Lamp failure	Double-flash red
Circuit failure	Triple-flash red

KEY FEATURE

The typical life of the exit LED lamp is 10 years.

MOUNTING

All dimensions are in inches (centimeters). For VR option, add 1/4" to height and width. Add 1/8" depth for single face; 1/4" depth for double face.

Shipping weight: LE - 4 lbs (1.8 kgs)

LE EL N- 5 lbs (2.3 kgs)

LRE - 4 lbs (1.8 kgs)

LRE EL N - 5 lbs (2.3 kgs)

LE - End Mounting

LE - Top Mounting

LE - Back Mounting
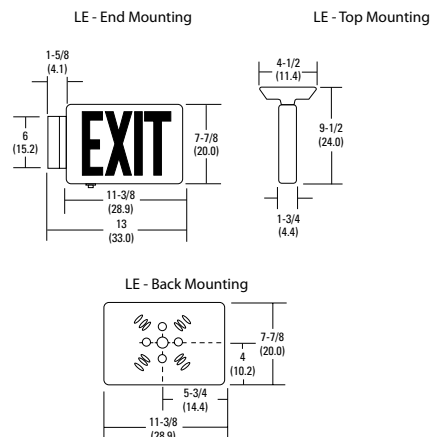
STANDARD MOUNTING
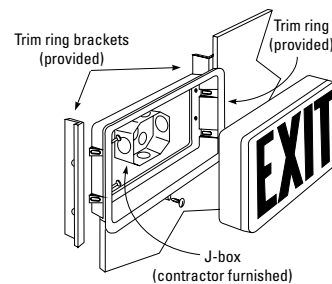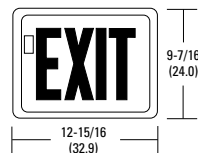
Wall opening dimensions: 8-3/4" H x 12-3/8" W x 1-3/4" D

MOUNTING WITH OPTIONAL ROUGH-IN KIT (ELA ERK)
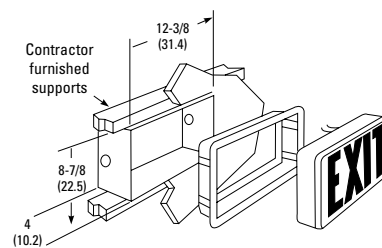
Wall opening dimensions: 8-7/8" H x 12-3/8" W x 4" D

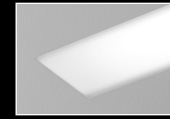LITHONIA LIGHTING®

Seem® 2

LED

FOCAL POINT®
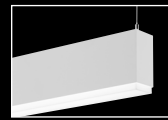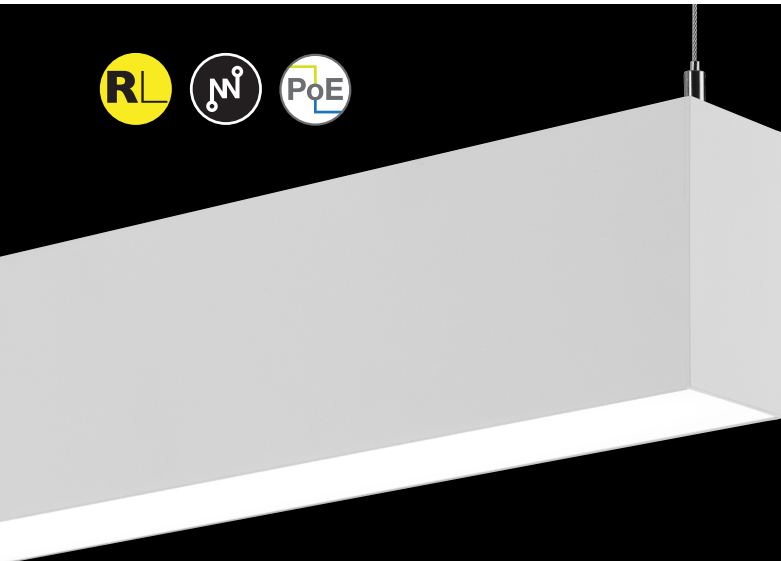
0.5"
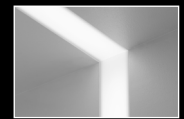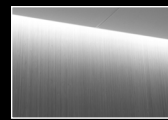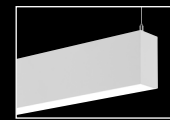pop-down lens
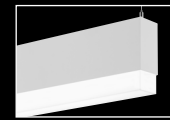
1.5"
pop-down lens
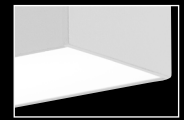
end
detail
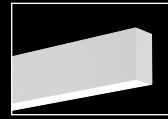
wall mount
companion

recessed
companion

wall to ceiling
companion

perimeter
companion

direct/indirect
companion

DIMENSIONAL DATA

Asymmetric, Batwing &
Flush Lens

Additional Shielding Options

4.50in
114.30mm

2.64in
67.06mm

0.5'' Pop-Down Lens

1.5'' Pop-Down Lens

MOUNTING INFORMATION

95.4" — 47.4"

8' start — 4' end

12'

95.4" — 95.4"

8' start — 8' end

16'

95.4" — 96" — 47.4"

8' start — 8' intermediate — 4' end

20'

95.4" — 96" — 95.4"

8' start — 8' intermediate — 8' end

24'
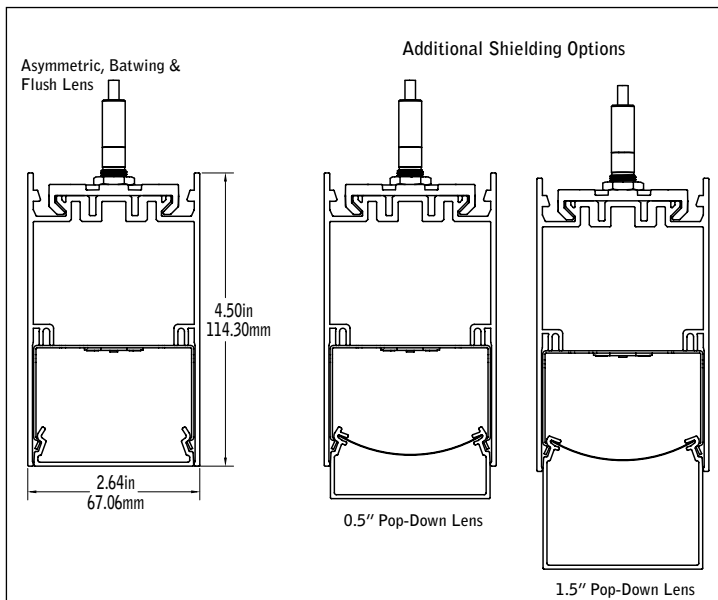
Consult factory for additional row length information.
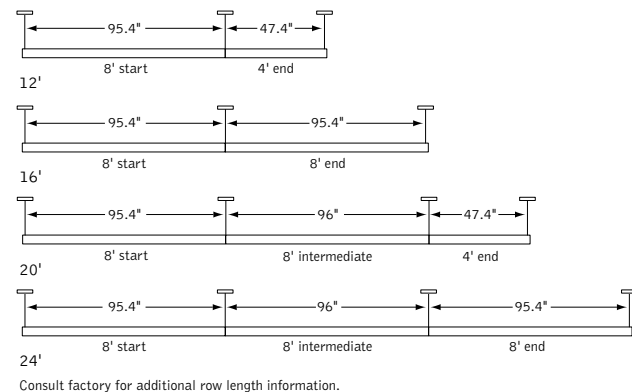
FEATURES

Narrow 2.5" linear direct LED with Asymmetric, Batwing, Flush, 0.5" or 1.5" Pop-Down lens.

Frosted acrylic lens provides uninterrupted illumination, without pixels or shadows.

Individual units and continuous runs in 1' increments.

Connected Solutions: Integrates with wired and wireless building lighting control systems.

PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

DISTRIBUTIONS

Asymmetric Lens

Batwing Lens

Flush Lens

0.5" Pop-Down Lens

1.5" Pop-Down Lens

Photometric performance is measured in accordance with IESNA LM-79.
Visit focalpointlights.com for complete photometric data.

MOUNTING INFORMATION

Standard Patterns with 90° Corners

'L' Patterns - A'xB'

Order: 8'x6'
Order: 6'x8'

'U' Patterns - A'xB'xC'

Order: 8'x6'x4'
Order: 8'x6'x4'

Rectangular Patterns - A'xB'R

Order: 8'x6'R

Custom Patterns
Consult factory

'T' Patterns

'X' Patterns

Corner Mounting Detail

Suspension Point

5"

Corners are constructed as 5" extensions to straight

Ordering examples assume A=8', B=6' & C=4'

Specify clockwise from start of run.

Start of run is always at first specified run length.

SPECIFICATIONS

LED System
Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 2700K, 3000K, 3500K or 4000K with CRI>80 or CRI>90, 3 SDCM. 3500K and 4000K with CRI>90 have a cyanosis observation index (COI) of 3.3 or less. LED modules and drivers are replaceable from below.

Construction
One piece extruded aluminum housing. Cast aluminum end caps. 8' unit weight: 30 lbs.

Optic
Reflectors fabricated of 22 Ga. steel finished in matte white powder coat.
Extruded acrylic lens with satin finish, up to 8' continuous.

Electrical
Luminaires are pre–wired with factory installed branch circuit wiring and over-molded quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Power factor > .9. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires. PoE runs require an independent PoE node and power feed for each luminaire section.

Emergency
Emergency Battery output - 10 watts for 90 minutes. Maximum mounting height: 20 ft. Emergency Circuit with Connected Solutions (DLM1, LMFS1, LMFSD, NLT1, ENL1, CLM1, NXE1, WLXP) shipped standard with leads to connect UL924 compliant device, by others.

Labels
UL and cUL listed. Suitable for Dry or Damp Locations, indoor use only.

Finish
Polyester powder coat applied over a multi-stage pre–treatment. Canopy and cord white as standard.

Lumen Maintenance
Reported: L70 at >61,000 hours   Calculated: L70 at 385,000 hours
          L90 at >61,000 hours   L90 at 103,000 hours
Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

Reliability
At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty
LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

4' PERFORMANCE CHART
See page 3.

QS 10 DAY
Options in orange qualify for the Quickship program. 1000' total.
Refer to Quickship Guide for complete details including EM/EC options.

Focal Point LLC reserves the right to change specifications for product improvement without notification.

ORDERING

		FSM2LS
Luminaire Series		
Seem 2 LED	FSM2LS	
Shielding		_____
Asymmetric Lens	AS	
Batwing Lens	BW	
Flush Satin Lens	FL	
0.5" Pop-Down Lens	PD05	
1.5" Pop-Down Lens (Individual units only)	PD15	
Lumen Output		_____
125 Lumens per foot (LD1 & L11 only. 4' minimum.)	125LF	
250 Lumens per foot (3' minimum with LH1.)	250LF	
375 Lumens per foot	375LF	
500 Lumens per foot	500LF	
625 Lumens per foot	625LF	
750 Lumens per foot	750LF	
875 Lumens per foot	875LF	
1000 Lumens per foot	1000LF	
Color Temperature		_____
2700K, 80+ CRI **or** 90+ CRI	27K **or** 927K	
3000K, 80+ CRI **or** 90+ CRI	30K **or** 930K	
3500K, 80+ CRI **or** 90+ CRI	35K **or** 935K	
4000K, 80+ CRI **or** 90+ CRI	40K **or** 940K	
Circuits & Zones		_____
1 Circuit, non-emergency	1C	
Consult Ordering Guide on page 5 for multiple circuiting and zoning options	_C_Z_DL	
Voltage		_____
120/277 UNV Volt	UNV	
347V (LD1 & L11 only)	347	
Low voltage	LV	
Control System & Dimming Level		_____
0-10V - 10% Dimming	LD1	
0-10V - 1% Dimming	L11	
Low Voltage, PoE compatible (No driver. Not available with EM or EC. LV Voltage only.)	LVN	
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1	
DALI 1% Dimming (For 750LF, 875LF & 1000LF consult factory.)	D11	
Wattstopper DLM - 1% Dimming**	DLM1	
Wattstopper Fixture Sensor**1 Low Density – 1% Dimming See sensor layout guide	LMFS1	
Wattstopper Fixture Sensor**1 High Density – 1% Dimming See sensor layout guide	LMFSD	
Acuity nLight - 1% Dimming**	NLT1	
Enlighted Smart Sensor - 1% Dimming**1 See sensor layout guide	ENL1	
Encelium CLM Connected Lighting Module -** 1% Dimming	CLM1	
Current NX Enabled – 1% Dimming**	NXE1	
WaveLinx Pro – 1% Dimming**1 See sensor layout guide	WLXP	
**(3' minimum length, with ECD/EM - 7' minimum.) 1 (Not available with pop-down lenses.)		
Mounting		_____
24" Cable Suspension	C24__	
48" Cable Suspension	C48__	
96" Cable Suspension	C96__	
(Specify canopy color White (WH), Black (BK) or Titanium Silver (TS). Example: C24WH.)		
(Specify one of the following in place of "C" J - for 2" canopies at non–feed locations. CS - for sloped ceiling applications.)		
Surface Mount (Not available with CLM1, DLM1 NLT1 or NXE1)	SM	
Factory Options		_____
(See Ordering Guide on page 5 for ordering details for DC, EC, EM & ECD.)		
Black Cord	BKCD	
Daylight Circuit	_DC	_____
Emergency Circuit	_EC	_____
Emergency Battery Pack†	_EM	_____
Emergency Control Device†	_ECD	_____
†(3' minimum. 120/277 Volt only.)		
Finish		_____
Black	BK	
Titanium Silver	TS	
Matte White Housing	WH	
Luminaire Length		_____
Specify luminaire/row length in 1' increments (2' minimum. Leave blank for patterns. Smaller increments available, consult factory.)	X'	
Pattern Options		_____
(2' minimum length)		
'L' pattern	A' x B'	
'U' pattern	A' x B' x C'	
Rectangular pattern (Consult factory for other pattern options)	A' x B' R	

4' PERFORMANCE CHART

Lumen Output	Delivered Lumens	Tested System Watts	Lumens Per Watt (LPW)				
			AS	BW	FL	PD05	PD15
125LF	500	6	95	91	88	81	82
250LF	1000	10	113	108	103	94	98
375LF	1500	14	120	116	105	101	100
500LF	2000	19	123	118	107	103	102
625LF	2500	24	121	116	105	101	101
750LF	3000	28	122	117	108	101	100
875LF	3500	34	120	115	104	100	100
1000LF	4000	39	119	114	105	101	100

Based on 3500K, 4' length. Lumen multipliers:
Delivered lumens may vary +/- 5%. Actual wattage may vary +/- 5%

CONNECTED® SOLUTIONS

Focal Point provides flexibility in meeting the needs of each project by integrating with several building lighting control systems. A variety of sensors, drivers and other components can be specified that allow the luminaires to communicate with wired and wireless networks. All zoning can be digitally reconfigured through the application software. Daylight harvesting, occupancy sensing, integration with HVAC systems, and individual controls enable the monitoring and modulating of light levels and temperature in order to save energy, reduce costs and maximize occupants' comfort. All Connected Solutions luminaires require a compatible building control system.†

Connected Solution	Ordering Code	Model #**	Protocol	Compatible Networks*	Occupancy & Daylight	Temperature Reporting	Communication to Luminaire	Drivers
legrand / WATTSTOPPER®	DLM1	LMFC-011	DLM	DLM	Enabled	No	Wired	**Advance by Signify**, Optotronic by eldoLED
	LMFS1	LMFS-601 & LMFI-111	DLM Wireless	DLM	Enabled	No	Wireless	**Advance by Signify**
	LMFSD	LMFS-601						**Optotronic by eldoLED (Dexal)**
COOPER Lighting Solutions	WLXP	OEM-WAA	WaveLinx Wireless	WaveLinx Pro Trellix	Enabled	No	Wireless (WaveLinx Pro Wireless Area Controller)	**Advance by Signify**
CRESTRON	D11	Specified Driver	DALI	Crestron Zūm Wireless & SpaceBuilder	Enabled	No	Wired	**eldoLED ECOdrive**
	L11		0-10V					**Advance by Signify**
ENCELIUM	CLM1	ZBHA-CLM-DIM-ENC	ZigBee	Encelium X Light Management System	Enabled	No	Wireless	**Optotronic by eldoLED** Advance by Signify
Enlighted	ENL1	SU-5E-IOT	Enlighted RF	Enlighted	Integrated	Yes	Wireless	**Advance by Signify**
LUTRON	LH1	LDE1	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	No	Wired	**Lutron Hi-Lume**
nLIGHT	NLT1	nEPS-60-IO	nLight	nLight	Enabled	No	Wired	**eldoLED ECOdrive**, eldoLED SOLOdrive
NX LIGHTING CONTROLS	NXE1	NXFM-LV	NX	NX Distributed Intelligence	Enabled	No	Wired	**Optotronic by eldoLED**

*Not all compatible networks may be listed. **For performance data and additional control system details please visit the connected solutions manufacturer websites. Primary drivers are listed in **bold.** To specify a particular driver please consult factory. †Controls systems supplied by others.

Ordering Guide

Direct Only Linear Circuitry, Zones & Factory Options

FOCAL POINT®

HOW TO USE THIS GUIDE

Fill out the worksheet on the following page to specify your requirements for circuitry, zones, and factory options.
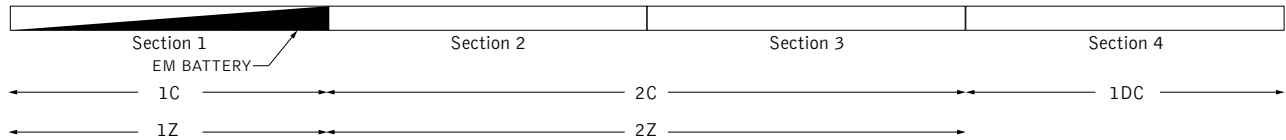
Refer to the run chart for standard run configurations, consult factory for custom configurations.

Complete the Totals / Ordering Codes at the bottom of the worksheet and add to your ordering logic on the cut sheet.

Submit the worksheet along with your order.

TOTAL RUN LENGTH: _32ft_   **JOB NAME:** _____   **FIXTURE TYPE:** _____

EXAMPLE	HOUSING SECTION	SECTION LENGTH	SHARED ELECTRICAL FEED, NORMAL POWER			FACTORY OPTIONS			
						SEPARATE ELECTRICAL FEEDS			EM
			SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	
	1	8	1C	1Z					1EM
	2	8	2C	2Z					
	3	8	2C	2Z					
	4	8				1DC			
	Totals / Ordering Codes		**2C**	**2Z**		**1DC**			**1EM**

ORDERING: FSM4L-FL-625LF-35K- 2C2Z -UNV-LD1-G2- 1DC-1EM -WH-32ft

Section 1 — EM BATTERY — Section 2 — Section 3 — Section 4

1C — 2C — 1DC
1Z — 2Z

KEY

C = Switching Circuit
Switched Hot / Shared Neutral

Z = Dimming Zone
Dimming Control Wires

DL = Daylight Zone
Daylight Dimming Control Wires

DC = Daylight Circuit
Switched Hot / Separate Neutral

EC = Emergency Circuit
Switched Hot / Separate Neutral

EM = Emergency Battery
Unswitched Hot / Shared Neutral

ECD = Emergency Control Device
Unswitched Hot / Separate Neutral

DEFAULTS

- Zones and Factory Options illuminate entire sections from 4' to 8' in length.
- One shared or isolated circuit and zone required per housing section.
- Limit of one EM or ECD per housing section.
- Additional electrical feed required for applications greater than three shared circuits and zones.
- Each DC, EC and ECD require an additional electrical feed.
- ECD not available in the same housing section as EC.
- Longer lead times and additional pricing may apply for custom run configurations.

CUSTOM LENGTHS

- If partial illumination of emergency or daylight section is required, indicate in ordering guide and add "partial illumination" in Order Notes. Drawing required.
- Engineering validation required, longer lead times may apply.

Ordering Guide Worksheet

Linear Circuitry, Zones & Factory Options

FOCAL POINT®

TOTAL RUN LENGTH: _____   **JOB NAME:** _____   **FIXTURE TYPE:** _____

| HOUSING SECTION | SECTION LENGTH | SHARED ELECTRICAL FEED, NORMAL POWER | | | FACTORY OPTIONS | | | |
| | | | | | SEPARATE ELECTRICAL FEEDS | | | |
		SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	EM
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Totals / Ordering Codes								

Combine to create Circuits & Zones ordering code

Enter as individual Factory Options

RUN CHART

Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths
9	5 + 4	21	8 + 8 + 5	33	8 + 8 + 8 + 5 + 4	45	8 + 8 + 8 + 8 + 8 + 5
10	6 + 4	22	8 + 8 + 6	34	8 + 8 + 8 + 6 + 4	46	8 + 8 + 8 + 8 + 8 + 6
11	7 + 4	23	8 + 8 + 7	35	8 + 8 + 8 + 7 + 4	47	8 + 8 + 8 + 8 + 8 + 7
12	8 + 4	24	8 + 8 + 8	36	8 + 8 + 8 + 8 + 4	48	8 + 8 + 8 + 8 + 8 + 8
13	8 + 5	25	8 + 8 + 5 + 4	37	8 + 8 + 8 + 8 + 5		
14	8 + 6	26	8 + 8 + 6 + 4	38	8 + 8 + 8 + 8 + 6		
15	8 + 7	27	8 + 8 + 7 + 4	39	8 + 8 + 8 + 8 + 7		
16	8 + 8	28	8 + 8 + 8 + 4	40	8 + 8 + 8 + 8 + 8		
17	8 + 5 + 4	29	8 + 8 + 8 + 5	41	8 + 8 + 8 + 8 + 5 + 4		
18	8 + 6 + 4	30	8 + 8 + 8 + 6	42	8 + 8 + 8 + 8 + 6 + 4		
19	8 + 7 + 4	31	8 + 8 + 8 + 7	43	8 + 8 + 8 + 8 + 7 + 4		
20	8 + 8 + 4	32	8 + 8 + 8 + 8	44	8 + 8 + 8 + 8 + 8 + 4		

Standard run configurations, consult factory for custom configurations.

WORKSHEET

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — The CLX is a linear lighting solution that is available in multiple lengths, lumen packages and distributions. Designed for versatility, the CLX can address virtually any indoor lighting need. The CLX is also offered in standard and high efficacy configurations and capable of being continuous row mounted or installed as a stand-alone fixture. Ideal for uplight and downlight in commercial, retail, manufacturing, warehouse, and display applications. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.**

CONSTRUCTION — Channel and cover are formed from code-gauge cold-rolled steel. Housing and lens endcaps are injection molded plastic to provide a more architectural look and feel. The endcaps come standard with a 7/8" knock out for continuous mounting but can be ordered without.

Finish: Paint options include high-gloss, baked white polyester (WH), galvanized (GALV), matte black (MB) and smoke gray (SKGY). Five-stage iron phosphate pre-treatment ensures superior paint adhesion and rust resistance.

OPTICS — Offered with acrylic lens and less lens configurations. Provides a choice of optical distributions including, wide, narrow, and aisle.

Models with wide diffuse lens provide up to 12% uplight. Please check the IES file for specific uplight value.

ELECTRICAL — Utilizes high-output LEDs integrated on a two-layer circuit board, ensuring cool-running operation. Optional internal pluggable wiring harness for reduced labor cost in row mounting applications. (See PLR_ ordering information on page 14.) Electronic LED driver is multi-volt input and 0-10V dimming standard (see Operational Data on page 6 for actual wattage consumption). This fixture is designed to withstand a maximum line surge of 2.5kV at 0.75kA combination wave for indoor locations, for applications requiring higher level of protection additional surge protection must be provided.

L70>100,000 hours at 25˚C.

LEDs provide nominal 80 CRI or 90 CRI at 3000 K, 3500 K,4000 K, or 5000 K.

Lumen output up to 2,500 lumens per foot.

INSTALLATION — Fixture may be ceiling or wall mounted (with or without THCLX hanger or angle mounted with CLXANGBRT), pendant or stem mounted with appropriate mounting options.

WARNING — Removing the lens and opening the fixture during installation exposes the LEDs, putting them at risk for damage.

If you plan to surface mount the fixture, we recommend using the THCLX. This eliminates the need to open the fixture.

If you plan to continuous row mount, we recommend using the PLR wiring harness option. This eliminates the need to open the fixture.

Damage to the LEDs caused during installation will not be covered under the warranty.

LISTINGS — CSA certified to US and Canadian safety standards. For use in damp locations between -4°F (-20°C) and 104°F (40°C). Optional High Ambient (HA) ranging to 122°F(50°C) available on certain lumen packages (See ambient temperature chart for additional information).

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN ACT— Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

LED Linear

CLX

24", 36", 48" and 96" Lengths

Flat Diffuse Lens

Round Diffuse Lens

Wide Diffuse Lens

CLX with Reflector

Stock configurations are offered for shorter lead times:

Stock Part Number	UPC
CLX L48 3000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525816
CLX L48 3000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525885
CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525939
CLX L48 5000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525908
CLX L96 6000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525861
CLX L96 6000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525915
CLX L96 10000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525922
CLX L96 10000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525830
CLX L48 3000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525960
CLX L48 3000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525892
CLX L48 5000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525854
CLX L48 5000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525946
CLX L96 6000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525878
CLX L96 6000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525823
CLX L96 10000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525953
CLX L96 10000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525847

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency

- This luminaire is part of an A+ Certified solution for nLight® control networks marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

CLX LED Linear

Series		Length		Nominal lumens		Performance package		Louver		Lens	
CLX	LED linear	L24	24" ‡	1500LM	1,500 lumens	SEF	Standard efficiency ‡	(Blank)	Less louver	L/Lens	Less lens
				2000LM	2,000 lumens	HEF	Premium efficiency ‡	SBLW	Straight blade louver, white ‡	FDL	Flat diffuse ‡
				2500LM	2,500 lumens			SBLMB	Straight blade louver, matte black ‡	RDL	Round diffuse ‡
				3500LM	3,500 lumens			SBLGV	Straight blade louver, galvanized ‡	WDL	Wide diffuse ‡
				4500LM	4,500 lumens			SBLSKGY	Straight blade louver, smoke gray ‡		
				5000LM	5,000 lumens						
		L36	36" ‡	2250LM	2,250 lumens						
				3000LM	3,000 lumens						
				3750LM	3,750 lumens						
				5250LM	5,250 lumens						
				6750LM	6,750 lumens						
				7500LM	7,500 lumens						
		L48	48"	3000LM	3,000 lumens						
				4000LM	4,000 lumens						
				5000LM	5,000 lumens						
				7000LM	7,000 lumens						
				9000LM	9,000 lumens						
				10000LM	10,000 lumens						
		L96	96"	6000LM	6,000 lumens						
				8000LM	8,000 lumens						
				10000LM	10,000 lumens						
				14000LM	14,000 lumens						
				18000LM	18,000 lumens						
				20000LM	20,000 lumens						

Distribution		Voltage				Driver ‡		Glare Reflector		Color temperature		Coloring rendering index	
(Blank)	General	MVOLT	120-277V ‡	277	277V	GZ1	Generic 0-10V, dims to 1% ‡	(blank)	No reflectors	30K	3000 K	80CRI	80 CRI
ND	Narrow ‡	120	120V	347	347V ‡	GZ10	Generic 0-10V, dims to 10% ‡	LUGR	Reflectors for additional glare reduction ‡	35K	3500 K	90CRI	90 CRI
WD	Wide ‡	208	208V ‡	480	480V ‡	EZ1	eldoLED 0-10V, dims to 1% ‡			40K	4000 K		
AD2	Aisle, 24° off center ‡	240	240V ‡							50K	5000 K		

Options

						Finish	
PS1050	Emergency battery pack, 10W, CA Title 20 Noncompliant ‡	PLR__	Plug-in wiring, see page 14 for ordering information	**nLight® Wired:** ‡		WH	White
E10WLCP	Emergency battery pack, 10W Linear Constant Power, Certified in CA Title 20 MAEDBS ‡	PLR1LVG	Plug-in wiring, low voltage dimming ‡	N100	nLight® without lumen management	GALVW	Galvanized with white lens end caps
BGTD	Generator transfer device, not avaialble with PS1050 ‡	RRL__	RELOC®-ready luminaire. See page 14 for ordering information	N100EMG	nLight® without lumen management For use with generator supply EM power ‡	GALVB	Galvanized with black lens caps
OCS	5', 18/3 Reloc selectable One Pass cable (fixture will bear dry location label) ‡	SPD	Surge protection device, provides up to 6kV protection ‡	NES7	nLight® nES 7 PIR integral occupancy sensor ‡	MB	Matte black
HA	High ambient, for use in ambient temperatures up to 50°C ‡	BAA	Buy America(n) Act Compliant	NESPDT7	nLight® nES PDT 7 dual technology integral occupancy control ‡	SKGYW	Smoke gray with white lens end caps
EPNKO	Decorative endplate, no knock out ‡	**nLight® Wireless:** ‡		NES7ADCX	nLight® nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ‡	SKGYB	Smoke gray with black lens end caps
OUTCTR	Wiring leads pulled through back center of fixture ‡	NLTAIR2 RES7	nLight® Generation 2 enabled PIR integral occupancy sensor with automatic dimming photocell	NESPDT7ADCX	nLight® nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ‡		
OUTEND	Wiring leads pulled through end of fixture ‡	NLTAIR2 RES7PDT	nLight AIR Generation 2 enabled dual technology integral occupancy sensor with automatic dimming photocell	**Individual controls:** ‡			
Cord Sets:				MSD7	PIR integral occupancy sensor		
CS1W	6' Staight blade plug, 120V ‡	NLTAIR2 RIO	No sensor control	MSDPDT7	PDT 7 dual technology integral occupancy control		
CS3W	NEMA twist-lock plug, 120V ‡			MSD7ADC	PIR integral occupancy sensor with automatic dimming control photocell		
CS7W	Staight blade plug, 277V ‡			MSDPDT7ADC	PDT integral occupancy sensor with automatic dimming control photocell		
CS11W	NEMA twist-lock plug, 277V ‡						
CS25W	NEMA twist-lock plug, 347V ‡						
CS97W	NEMA twist-lock plug, 480V ‡						
CS93W	600V SEOOW white cord, no plug (no voltage required) ‡						
CS6WG16STOWD5D	6' white cord, 16/5, no plug, includes low voltage dimming wires (no voltage required) ‡						

See Accessories and footnotes on next page

Accessories: *Order as separate catalog number.*			
Mounting:		**SQ__**	Swivel stem hanger (specify length in 2" increments up to 48") ‡
ZACVH M100	Adjustable 10' aircraft cable with Y hanger (1 pair)	**THCLX __**	Tong hanger (Must specify color) (one pair) ‡
ZAC120	One adjustable aircraft cable with canopy 120" ‡	**CLXANGBKT ____**	Angle bracket, (Must specify color) (one pair) ‡
ZACFP120	One adjustable aircraft cable with feed (3 conductor) and canopy, 120" ‡	**HC36 M12**	Hanger chain, 36" (1 pair)
ZACFPD120	One adjustable aircraft cable with feed (5 conductor) and canopy 120" ‡		
ZAC240	One adjustable aircraft cable with canopy 240" ‡	**Wireguards:**	
ZACFP240	One adjustable aircraft cable with feed (3 conductor) and canopy, 240" ‡	**WGCLX24__**	24" wireguard, (Must specify color) ‡
ZACFPD240	One adjustable aircraft cable with feed (5 conductor) and canopy, 240" ‡	**WGCLX36__**	36" wireguard, (Must specify color) ‡
		WGCLX48__	48" wireguard, XX, (Must specify color) 96" fixture requires two ‡

‡ Option Value Ordering Restrictions	
Option value	**Restriction**
347V, 480V	Voltage selected utilizes a step-down transformer. Not available with L24 when ordered with N100. Not available with PS1050, E10WLCP or BGTD option.
BGTD	Not available with MVOLT, 208V or 240V. Not available with HA. Available with L48 or L96 only. 20 Not available with PS1050 or E10WLCP options. Not available with 208 or 240V. Not available Individual controls, NLight Wired, or NLight Wireless options.
CS1W, CS3W, CS7W, CS11W, CS25W, CS97W	Not available with BGTD option. Must specify voltage.
CS6WG16ST0WD5D	Not available with Individual controls, nLight wired networking, nLight wireless networking, nLight wireless zone control options.
DRIVER	When continuous row mounting, fixtures must all have the same driver selection.
E10WLCP	Not available with OUTCR, Not available with HA. Not available with 347V or 480V. Not available with BGTD option. Requires SPD option. Not available with L24 or L36. Not available with L48 in combination with N100.
EPNK0	Not available OUTEND.
EZ1	Not available with HA option. Not available with 5000LM, 7500LM.
FDL, RDL, WDL	Only available with general distribution. Not available with CLXRN accessories.
GZ1, GZ10	Not available with Individual controls, nLight wired networking, nLight wireless networking, nLight wireless zone control options.
HA	Not available with L24, L26, Not available with BGTD option. Not available with EZ1. Only available with L48 3000/4000/5000LM and L96 6000/8000/10000LM.
HEF	not available with L48 3000LM and L96 6000LM
LUGR	Not available with L36 length. Only available with WH finish. Not compatible with THCLX Hanger or wireguard accessories. LUGR option required for some DLC premium qualifications - Please check the DLC Qualified Products List to determine if LUGR option is necessary to meet requirement. If mounting in continuous rows, ensure all models ordered with LUGR option if required on any configuration to ensure rows match in form factor. LUGR reflectors ship in standard fixture carton and are not sold as separate accessory - this option MUST be specified as part of the CLX model number.
MSD7, MSDPDT7, MSD7ADC, MSDPDT7ADC	Not available with any other control option. Requires EZ1. Sensor housing will be the same color as lens end caps.
N100, N100EMG	nLight EMG option requires a connection to existing nLight network. Power is provided from separate N100 enabled fixture.
ND, WD, AD2	Not available with CLXRN accessories. Available L/LENS only.
NES7, NESPDT7, NES7ADCX, NESPDT7ADCX	Not available with any other control option. Requires EZ1. Requires N100 or N100EMG option, N100EMG with NES7 requires RFA. Sensor housing will be the same color as lens end caps.
NLTAIR2 RES7, NLTAIR2 RES7PDT, NLTAIR2 RIO	Not available with 10000LM, 14000LM, 18000LM, 20000LM. Sensor housing will be the same color as lens end caps.
OCS	Must specify voltage.
OUTCR	Not available with L24, Not available with PLR options.
OUTEND	Not available with PLR options.
PLR1LVG	Not available with Individual controls, NLight Wired, or NLight Wireless options. Refer to page 14 for more PLR details.
PS1050	Not available with 347V or 480V. Not available with BGTD option. Requires SPD option. Not available with L24 or L36. Not available with L48 in combination with N100. Not availablewith HA.
SBLW, SBLMB, SBLGV, SBLSKGY	When ordered with L24 only available with 1500LM or 2000LM in combination with GZ10 driver. Not for use with THCLX, CLXANGBKT or WGCLX accessories. Not available with RDL lens options.
SEF	Not available with EZ1 when ordered with L24 with 5000LM or L36 with 7500LM.
SPD	Required with PS1050, E10WLCP, BGTD, XAD, or XAD924.
THCLX __, CLXANGBKT ____	Not available with louver or wireguards. THCLX__ not available with LUGR.
WIREGUARDS	Not for use with LUGR option.
ZAC120, ZACFP120, ZACFPD120, ZAC240, ZACFP240, ZAPFPD240, SQ	Ships standard as white

OPTIONS AND ACCESSORIES
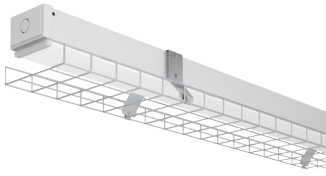
Wireguard
Ships separately from fixture:
96" fixture requires two WGCLX48.
Order as:
WGCLX24___
WGCLX36___
WGCLX48___
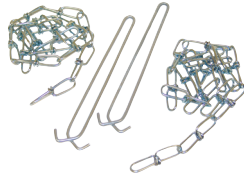
LUGR glare reflector
NOT available as accessory - must be specified as part of the fixture nomenclature. See ordering notes on page 3.

Aircraft Cable with Canopy
Available in 120" or 240"
Order as:
ZAC120
ZAC240

HANGER CHAIN
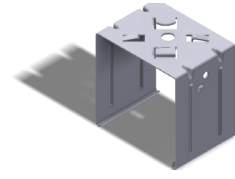36" chain with Y hanger. ships as a pair
Order as:
HC36

ZACVH HANGER
10' Aircraft cable with Y hanger.
Order as:
ZACVH

Tong hanger
Ships as a pair
Order As:
THCLX___

DIMENSIONS

All dimensions are in inches (centimeters) unless otherwise indicated.
Dimensions may vary with options or accessories.

INTEGRATED SENSOR ADDS 2.0 INCHES TO STANDALONE FIXTURE LENGTH
HOUSING END CAP ADDS 0.236 INCHES TO FIXTURE LENGTH PER SIDE. DIMENSIONS BELOW INCLUDE ENDCAPS.

A - 7/8" KNOCK OUT
B - 0.5" by 0.16" SLOT
C - 0.3" DIA HOLE

L96

L48

L36

L24

L24 WITH SENSOR
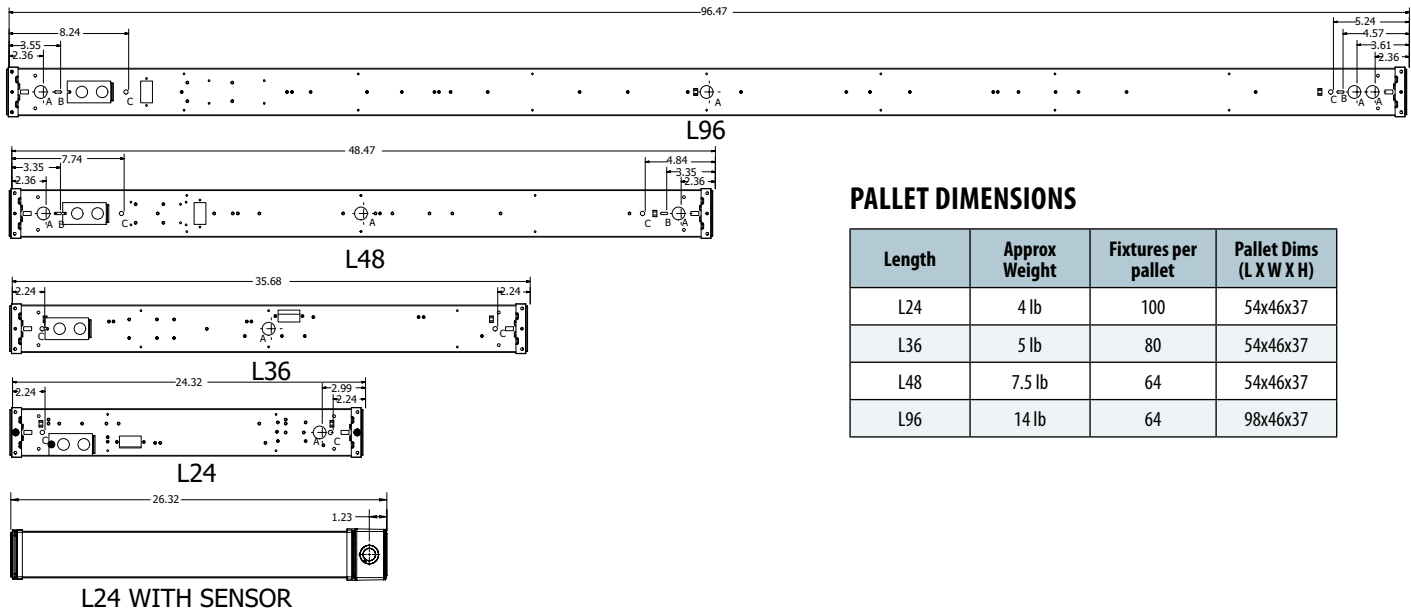
PALLET DIMENSIONS

Length	Approx Weight	Fixtures per pallet	Pallet Dims (L X W X H)
L24	4 lb	100	54x46x37
L36	5 lb	80	54x46x37
L48	7.5 lb	64	54x46x37
L96	14 lb	64	98x46x37

THCLX - SHIPS TWO PER ORDER,
UTILIZES A #8 HEX HEAD SCREW AND NUT
FIXTURE SITS 1.3 INCHES FROM STRUCTURE WHEN MOUNTED
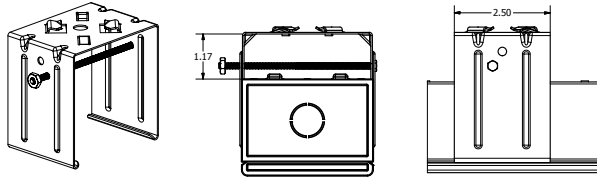
CLXANGBKT - SHIPS TWO PER ORDER
HOLES TO MOUNTING STRUCTURE ARE 0.175" DIA, 2.5" APART
FIXTURE SITS APPROXIMATELY 3.5" FROM STRUCTURE
WHEN MOUNTED HORIZONTAL TO STRUCTURE

L/LENS

FDL

RDL

WDL
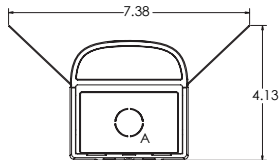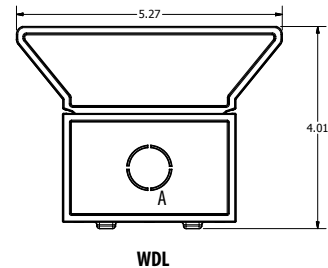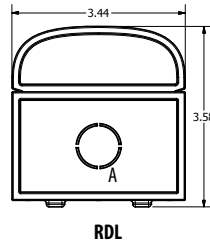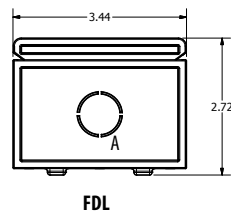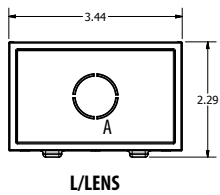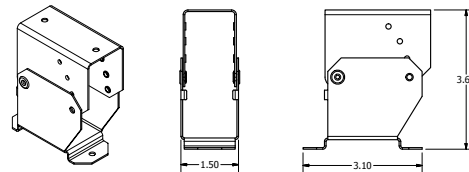
**LUGR Reflector Option
- applies to all lens types**

PHOTOMETRICS

See www.lithonia.com.

POWER SENTRY EMERGENCY BATTERY PACKS

		SEF Emergency Lumens	HEF Emergency Lumens
PS1050	Factory installable	1400	1500
E10WLCP	Factory installable	1400	1500
PS1555LCP	Field installable, remote mount only	2000	2100

Note: For emergency lumen output of specific model, please consult factory. One board will be illuminated during emergency operation.

CLX CHARACTERISTICS

Nominal Lumen Package	Length	Wattage								Length	Width	Depth	Comparable Light Source
		Standard Efficiency				High Efficiency				Dimensions are shown in inches			
		120V	277V	347V	480V	120V	277V	347V	480V				
2500LM	24"	18.4	18.4	24.0	24.0	17.4	17.4	23.1	23.1	24	3.5	3.75	1-lamp 32W T8, 1-lamp 54W T5HO, 50W HID
5000LM	24"	41.5	41.5	47.4	47.4	38.1	38.1	44.1	44.1	24	3.5	3.75	2-lamp 32W T8, 1-lamp 54W T5HO, 70W HID
3750LM	36"	26.5	26.5	32.1	32.1	25.1	25.1	30.7	30.7	36	3.5	3.75	1-lamp 32W T8, 1-lamp 54W T5HO, 50W HID
7500LM	36"	62.6	62.6	68.6	68.6	54.0	54.0	59.7	59.7	36	3.5	3.75	2-lamp 32W T8, 1-lamp 54W T5HO, 70W HID
5000LM	48"	31.8	31.8	37.2	37.2	31.8	31.8	37.6	37.6	48	3.5	3.75	2-lamp 32W T8, 1-lamp 54W T5HO, 70W HID
10000LM	48"	70.7	70.7	76.2	76.2	65.3	65.3	70.8	70.8	48	3.5	3.75	3-lamp 32W T8, 2-lamp 54W T5HO, 100W HID
10000LM	96"	63.7	63.7	69.0	69.0	63.7	63.7	69.5	69.5	96	3.5	3.75	3-lamp 32W T8, 2-lamp 54W T5HO, 100W HID
20000LM	96"	141.3	141.3	146.8	146.8	130.5	130.5	136.1	136.1	96	3.5	3.75	6-lamp 32W T8, 4-lamp 54W T5HO, 200W HID

Note: For wattage by configuration, please reference the CLX Operational Data Document.

RRL - RELOC®-Ready Luminaire

- RRL connectors can be used with Quick-Flex®, System 820 and OnePass® systems.
- Load side of connector factory installed to luminaire.
- 4-pole mating connector with push-in terminations allows for simple installation.
- Touch-safe design on both halves meets UL/CSA requirement.
- Wiping contact design allows safe disconnect under load.

ORDERING INFORMATION   Lead times will vary depending on options selected. Consult with your sales representative.   **Example**: RRLA

Series		Wiring instructions	
RRL	RELOC®-ready luminaire	A	Hot conductor wired to position #1 (phase A)
		B	Hot conductor wired to position #2 (phase B)
		C	Hot conductor wired to position #3 (phase C) [1]

Compatible RELOC® Cables for Industrial Luminaires (ordered and shipped separately)

OCS	OCU	OD	DC	PT

Notes

1   C, ABE, and C12S options are not used with Quick-Flex QFC, QSFC, QPT, and QD.

PLUG-IN WIRING INFORMATION

Advanced plug-in system with two-circuit capability. Available on industrial and strip products and a variety of architectural products mounted in continuous rows. PLR22 (2-circuit) and crossover harness switches hot circuit serving next fixture in row. Reduces fixture types on job for alternating circuit applications (see example below.)

Easy one-step installation, saves up to 35% on labor costs. Expanded switching flexibility helps save energy.

Rows can be 50% longer with two-circuit systems. Polarized, lock-together nylon connectors prevent miswiring in the field. #12 THHN conductor, rated 600V, 90°C. White neutral wire included. Grounding accomplished by fixture in-row connectors.

CSA certified systems available with up to 2 circuits. G ground required.

Not for use with dedicated emergency circuits.

Note: Specifications subject to change without notice.

ORDERING INFORMATION   Lead times will vary depending on options selected. Consult with your sales representative.

Series	Number of hot wires		Branch circuits				Dimming		Ground	
PLR	(blank)	Not required for PLR22	Circuits to which driver is connected		Battery charging circuit (must be unswitched)		LV	Low-voltage dimming	G	Ground (required)
PLR22	1	Black	(blank)	Not required for PLR22	(blank)	No battery charging circuit				
	2	Black and red	A	Black wire	ELA	Battery pack wired to black wire				
			B	Red wire	ELB	Battery pack wired to red wire				

Typical Applications

- Multiple-circuit and single-circuit for longer continuous rows
- Multiple-circuit with alternating fixtures on separate circuits and 2-circuit PLR22
- Multiple circuit with night-lights located along row as desired

VIA 3 PERIMETER

RECESSED

LUMENWERX
W W W . L U M E N W E R X . C O M

CHROMAWERX QUADRO - RGBW

IMPORTANT: a qualified DMX integration consultant is required to ensure proper installation and function of any DMX network

DESCRIPTION

Via 3 Perimeter creates a continuously illuminated "slot" at the wall/ceiling intersection. Lighted corners are available. Via Perimeter installs in grid or drywall ceilings in a choice of three arrangements: level, shallow 1", and deep 3 ¼". Via 3 Perimeter is an ideal vehicle for Chromawerx color tuning in education, office, and healthcare applications where modular luminaires are used.

PROJECT: _____

TYPE: _____

NOTES: _____

_____

_____

ORDER GUIDE

IC RATED

	HLO			
LUMINAIRE ID	**OPTICS**	**LIGHT SOURCE**	**OUTPUT WATTAGE**	**LUMINAIRE LENGTH**
V3PERL - Via 3 Perimeter Level	**HLO** - High-Efficiency Lambertian Optic	**QUADRO** - Four-channel RGB with 3500K white	**8WF** - 8 W/ft output	Available sections - 4', 8' & 12'
V3PERS - Via 3 Perimeter Shallow		**RS** - Red solid	**10WF** - 10 W/ft output (Quadro only)	**#FT** - nominal length in feet
V3PERD - Via 3 Perimeter Deep		**GS** - Green solid	**12WF** - 12 W/ft output (Quadro only)	**(2' increments only)**
		BS - Blue solid		Continuous Run - for luminaires over 12'
				Minimum Individual section 4'

			1			
VOLTAGE	**DRIVER ¹**		**ELECTRICAL**	**MOUNTING**	**FINISH**	**OPTIONS**
120 - 120V	**QUADRO**	**Solid colors**	**1** - 1 circuit	**TG9** - Tegular 9/16"	**W** - Matte white	**NEF** - No end flanges (for wall-to-wall installations)
277 - 277V	**DMX ²** - DMX, to specify see pages 6 to 11	**D1** - 0-10V		**TG15** - Tegular 15/16"	**CF#** - Custom finish, specify RAL#	**FU120** - Fuse 120V
		DA ² - DALI		**TB9** - T-bar 9/16"		**FU277** - Fuse 277V
	¹ PoE (Power-over-Ethernet) compatible. Consult factory for details.			**TB15** - T-bar 15/16"		**FWC** - Flexible whip cable (6' std)
	² On-site commissioning is required.			**ST** - Screw slot t-bar		**CP** - Chicago Plenum
				DTR - Drywall trim		**NA** - None
				DTL - Drywall trimless		
				DMF - Drywall mud flange		

DMX WALL CONTROLS

To specify see pages 6 to 11

CHROMAWERX

CROSS SECTION

3 1/32"

5 1/2"

3 3/4"

V3PERL - Via 3 Perimeter Level

3 1/32"

6 1/2"

4 3/4"

V3PERS - Via 3 Perimeter Shallow

3 1/32"

8 3/4"

7"

V3PERD - Via 3 Perimeter Deep

0.9 Y
520 nm

770 nm

380nm

0

0   0.8 X
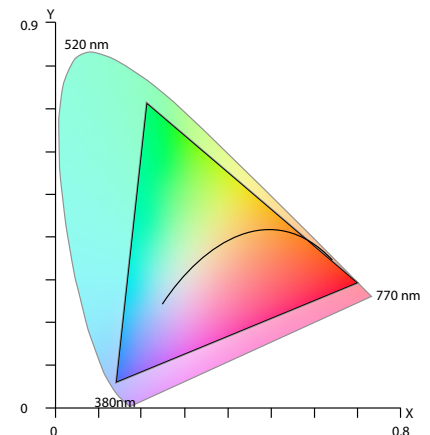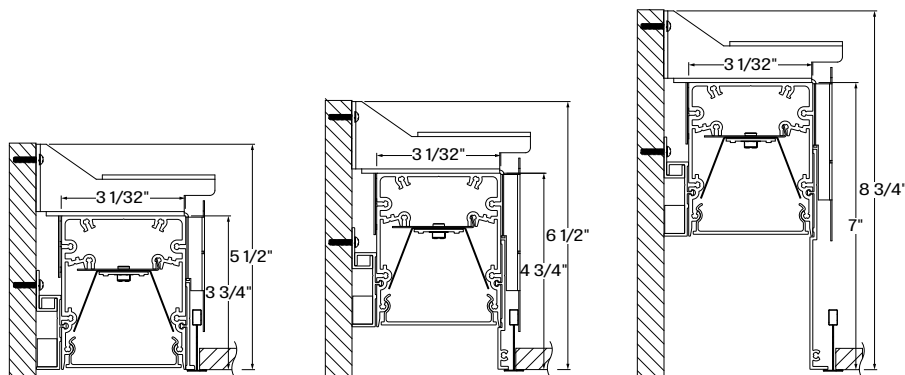
TECHZONE™ & **USG** Compatible with 4" ceiling

ETL LISTED
c   us
Intertek

VIA 3 PERIMETER

RECESSED

LUMENWERX

## CHROMAWERX QUADRO - RGBW

OPTICS

HIGH-EFFICIENCY LAMBERTIAN OPTIC (HLO) - The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio.

LIGHT SOURCE - LED

Custom linear array of mid-flux LEDs, comprised of an alternation of an RGB and a dedicated white LED. The white LED is used for when a static white CCT is required in the space. RGB LEDs are tightly binned for excellent color control between fixtures. The white LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LIGHT DISTRIBUTION
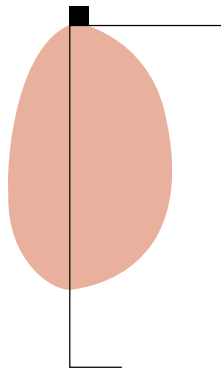
V3PERD-HLO-
LED-80-750-40-20
Wall Luminaires: 20' run
Lumen Output: 750 lm/ft
Watts: 8.3 watts/ft
Ceiling Height: 10'
Efficacy: 90 lpw

Foot Candles on 20' wide wall, 10' ceiling

156.9	154.3	162.4	152.9	153.0	152.9	152.9	163.0	154.4	157.5
14.8	14.1	13.1	12.7	12.6	12.6	12.7	13.1	14.2	15.8
8.6	8.0	7.2	6.9	6.8	6.8	6.8	7.2	8.1	8.7
7.0	6.5	6.0	5.8	5.8	5.8	5.9	6.1	6.5	7.0
6.2	5.9	5.5	5.6	5.9	5.9	5.7	5.5	5.9	6.4

LUMINAIRE LENGTH

Via 3 Perimeter is made up of standard 4, 8 and 12 foot sections that may be joined together to create longer continuous run lengths. Exact run length must be noted in the product code. The minimum individual section available is 4 foot, and continuous run lengths can be ordered in 2 foot increments. All individual sections are joined together onsite using the joiner kits provided. Lumenwerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system
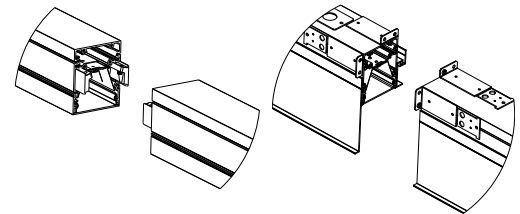
Drywall joining   Grid joining

ETL LISTED
c ETL us
Intertek

CHROMAWERX QUADRO - RGBW

CHROMAWERX - RGBW

Chromawerx Quadro is a four-channel control that operates an RGBW LED array and addresses the need for more expressive color in architectural applications. The DMX driver supports familiar programming tools for both dynamic multi-hued color and precise white color point control. While a typical user interface will be a DMX controller by others, Lumenwerx also offers a simple control station for stand-alone color changing applications.

CIE 1931 Chromaticity space
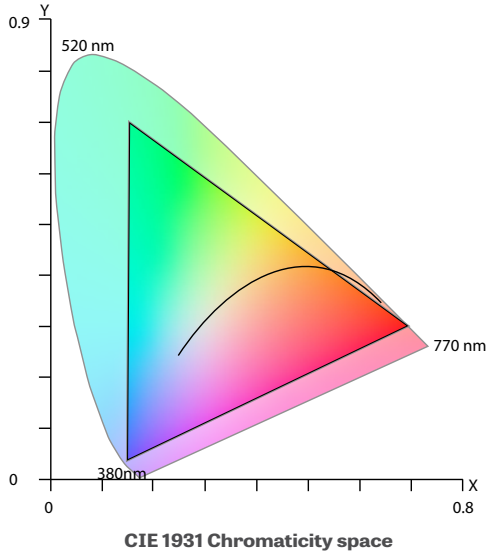
The above diagram overlays the full gamut of colors attainable with the RGBW on top of the CIE 1931 color space. Any color point inside of the triangle can be obtained by setting the correct output levels for each of the individual red, green, blue, and white channels.

ELECTRICAL

DMX

Factory-set, adjustable output current, multi-channel LED driver with universal (120-277VAC) input. Using DMX wall controls (optionally supplied by Lumenwerx) or an existing DMX control system, four channels of LEDs (Red/Green/Blue/White) are independently adjustable. Each DMX driver has multiple output channels that can be independently addressed at the factory or on-site using built-in RDM (Remote Device Management) functionality. Dimming range from 100%-0%. At maximum driver load, efficiency<89%, PF>0.9, THD<20%.

PoE

Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, Duo (tunable white), Quadro (RGBW) emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.
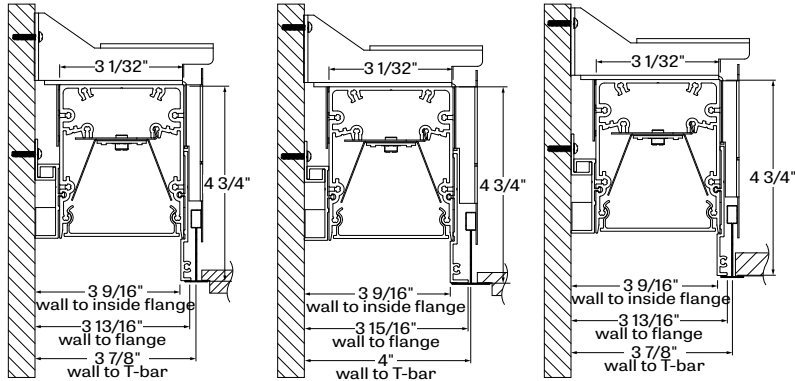
VIA 3 PERIMETER

RECESSED

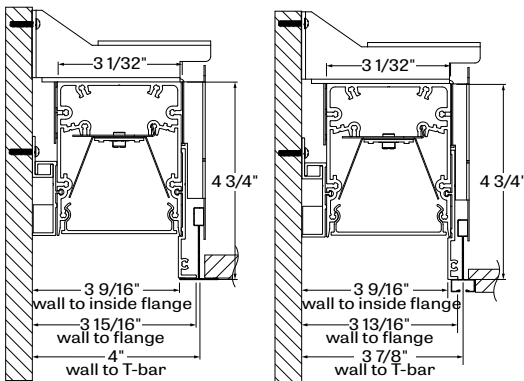## CHROMAWERX QUADRO - RGBW

MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling,

TG9 - tegular 9/16"

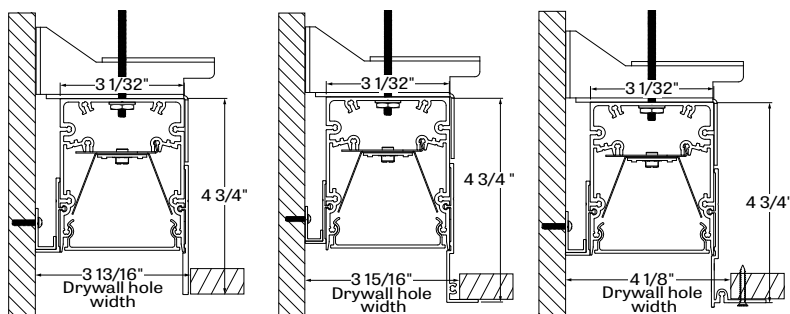**TG15** - tegular 15/16"

TB9 - t-bar 9/16"

TB15 - t-bar 15/16"

ST - screw slot t-bar

Mounting for drywall ceilings are available with visible trim, mud flange, trim or trimless.

DTL - drywall trimless

DTR - drywall trim

DMF - drywall mud flange

FINISH

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white powder coating.

Custom finishes are also available.

CONSTRUCTION

Housing - Extruded aluminum (0.095" nominal) up to 90% recycled content

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

Joining system - Die cast zinc (0.95" nominal) and die formed galvanized sheet 18 gauge

Reflectors - Flat rolled aluminum sheet 0.040" thick precisely die formed, 95% reflective matte white painted

Recessed flanges - Extruded aluminum (0.075" nominal) up to 90% recycled content

End plate - Die formed cold rolled sheet steel 18 gauge thick

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via 3 Perimeter 4ft - 11.12lbs - 5.05kg

Via 3 Perimeter 8ft - 22.25lbs - 10.1kg

Via 3 Perimeter 12ft - 33.48lbs - 15.2kg

CERTIFICATIONS

ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

IC rated - suitable for direct contact with insulation.

WARRANTY

Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Wall controllers are covered by the manufacturer warranty.

ETL LISTED
c   us
Intertek

VIA 3 PERIMETER

RECESSED

LUMENWERX
W W W . L U M E N W E R X . C O M

CHROMAWERX QUADRO - RGBW

QUADRO DMX SPECIFICATION

A qualified DMX integrator is required to assure proper installation and commissioning of the DMX network. **When placing the PO, please provide the <u>contact information of your DMX integrator.</u>**

Please answer the following questions to help us identify your DMX network requirements.

YES ...... **Do you require a wall controller provided by Lumenwerx?** ...... NO
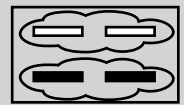
DMX control system supplied by others. Lumenwerx will supply DMX-enabled fixtures with default DMX addressing.
See following pages for technical DMX informations. ✓

DMX controller supplied by Lumenwerx

How many zones do you have?
A zone consists of one or more luminaires behaving identically.
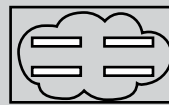
1 Zone

2 Zones

How to calculate the required number of drivers:

per 4' fixture
Driver
1x driver
Less than 12.5W/ft, direct only

per 4' fixture
Driver Driver
2x driver
Above 12.5W/ft or for all direct/indirect fixture

To Calculate # of drivers ⬅

| 1 Zone | 2 to 3 Zones | 4 or more Zones |

Do you have more than 32 drivers in total?

NO   YES

NO   YES

Order a standard Lumenwerx wall controller <u>type 1</u>.

WALL CONTROLLER

WC1W - Single zone wall controller white
WC1B - Single zone wall controller black

Add the control code at the end of your order code.
Please provide a fixture layout or RCP (Reflected Ceiling Plan) showing the locations of the DMX fixtures, zones and the DMX wall controller.
Refer to your DMX integrator for the installation. ✓

Subject to factory evaluation. Please contact our controls specialist at controls@lumenwerx.com
Additional cost and equipment will be required. ✓

Order a standard Lumenwerx wall controller <u>type 2</u>.

WALL CONTROLLER

WC2W - 3 zone wall controller white
WC2B - 3 zone wall controller black

Add the control code at the end of your order code.
Please provide a fixture layout or RCP (Reflected Ceiling Plan) showing the locations of the DMX fixtures, zones and the DMX wall controller.
Refer to your DMX integrator for the installation. ✓

Subject to factory evaluation. Please contact our controls specialist at controls@lumenwerx.com
Additional cost and equipment will be required. ✓

Subject to factory evaluation ans approval. Please contact our controls specialist at controls@lumenwerx.com
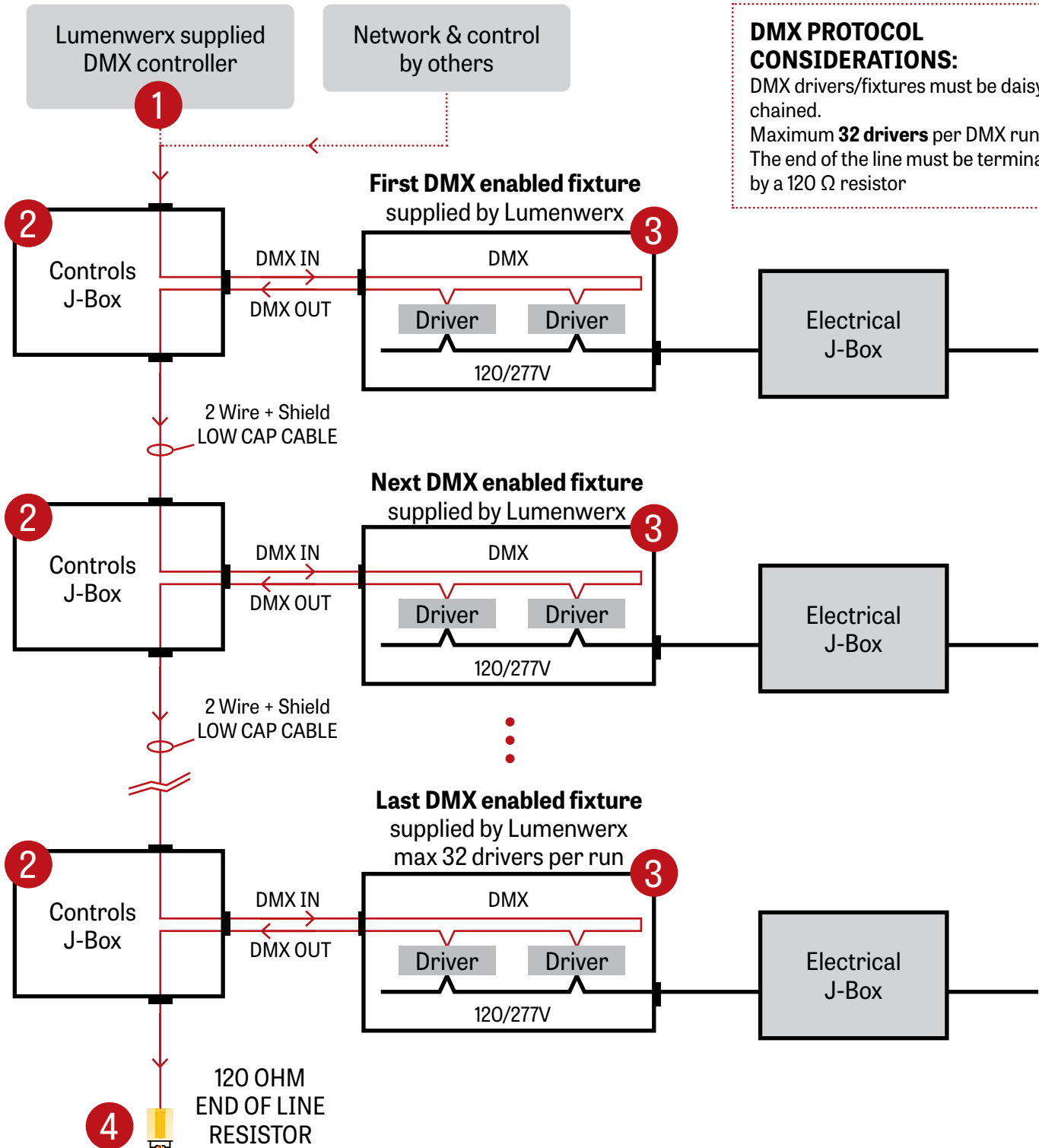Additional cost and equipment will be required. ✓

ETL LISTED c US
Intertek

CHROMAWERX QUADRO - RGBW

GENERIC DMX NETWORK ARCHITECTURE

Lumenwerx supplied DMX controller

Network & control by others

1

DMX PROTOCOL CONSIDERATIONS:
DMX drivers/fixtures must be daisy chained.
Maximum **32 drivers** per DMX run.
The end of the line must be terminated by a 120 Ω resistor

2 Controls J-Box

First DMX enabled fixture
supplied by Lumenwerx **3**

DMX IN

DMX OUT

DMX

Driver   Driver

120/277V

Electrical J-Box

2 Wire + Shield
LOW CAP CABLE

2 Controls J-Box

Next DMX enabled fixture
supplied by Lumenwerx **3**

DMX IN

DMX OUT

DMX

Driver   Driver

120/277V

Electrical J-Box

2 Wire + Shield
LOW CAP CABLE

2 Controls J-Box

Last DMX enabled fixture
supplied by Lumenwerx
max 32 drivers per run **3**

DMX IN

DMX OUT

DMX

Driver   Driver

120/277V

Electrical J-Box

4 120 OHM
END OF LINE
RESISTOR

ETL LISTED
Intertek

CHROMAWERX QUADRO - RGBW

1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

WALL BOX SUPPLIED BY OTHERS

2 Wire +
Shield Low Cap Cable

Back Panel

Front Panel

V-
12-24
Vdc

V+
12-24
Vdc

DMX-

DMX+

SHIELD

BLACK

RED

WHT-
BLUE

BLUE

BARE

Controller image may differ

I.E.: Cerco Cable 7539-10
Belden 9841
Belden 8241

S1　S2　S3

Power Supply
120-277VAC / 24VDC

N

BLUE

Neutral

DC out

DC in

L

BROWN

Line

Ground

Electrical
J-Box

ETL LISTED
c   us
Intertek
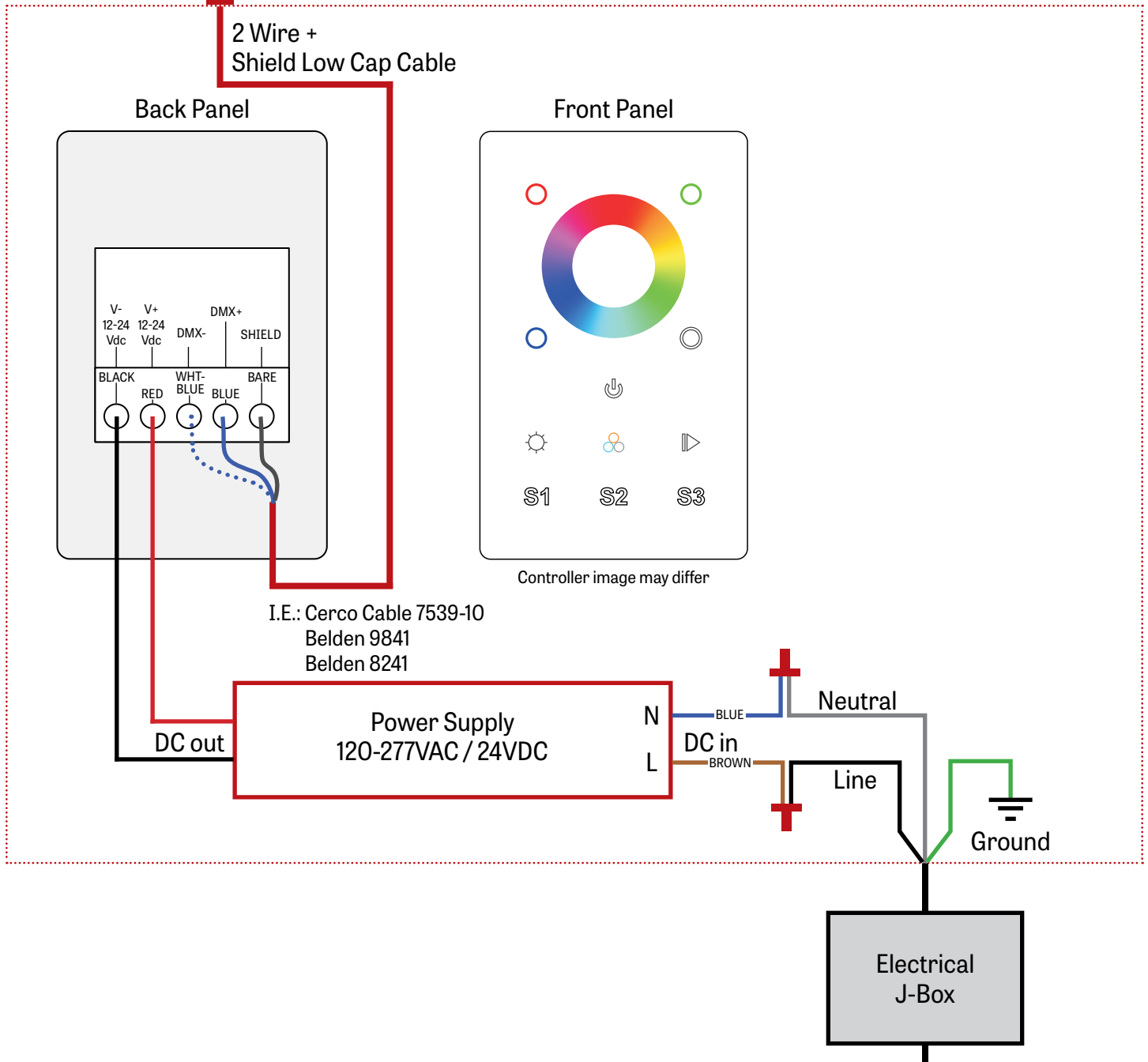
CHROMAWERX QUADRO - RGBW

2 J-BOX DMX DAISY CHAIN DETAIL

Low capacitance DMX Cable from Previous Fixture

Shielding foil touches the bare metal drain wire inside

IN

Bare metal drain wire (shield) MUST **NOT** TOUCH J-BOX

Controls J-Box

DMX IN

DMX ENABLED FIXTURE

DMX OUT

Ground

OUT

Bare metal drain wire (shield) MUST **NOT** TOUCH J-BOX
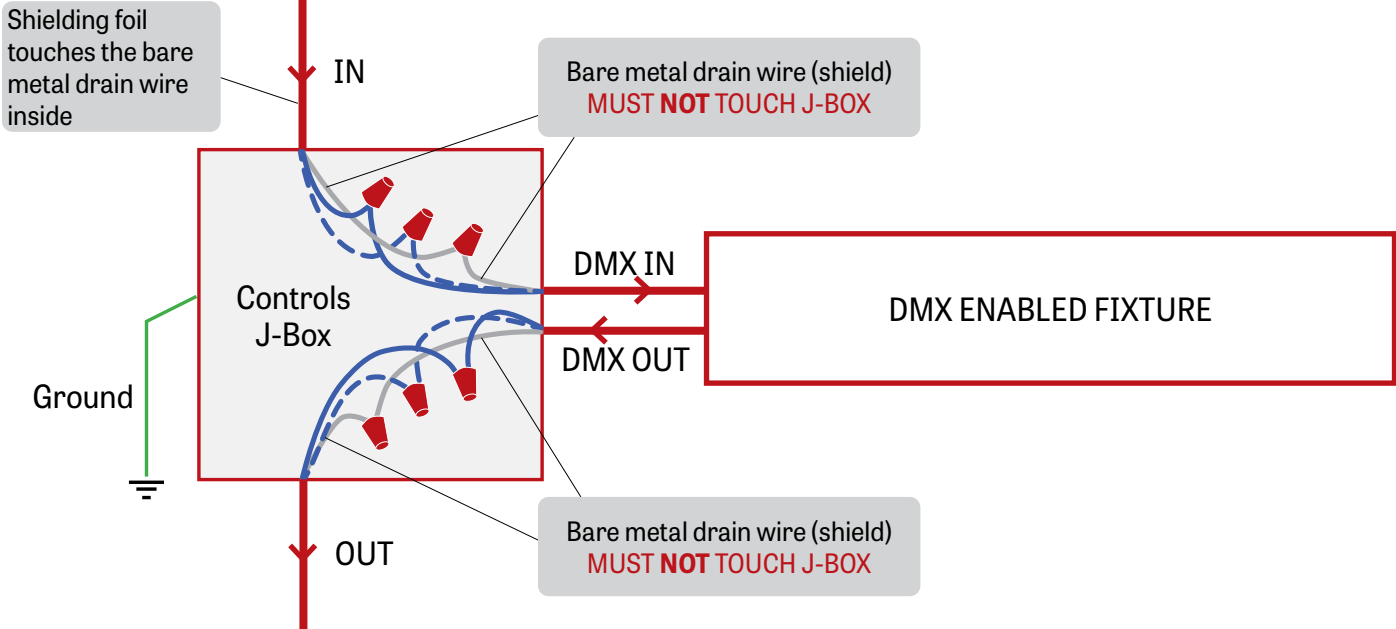
Low capacitance DMX cable to next fixture

3 DMX CONNECTION RECESSED & SURFACE

DMX

IN — Shield / DMX- / DMX+

OUT — Shield / DMX- / DMX+

POWER

LINE VOLTAGE

white / black / green

N   L   G

DMX ENABLED FIXTURE

DMX

PWR

ETL LISTED c us
Intertek
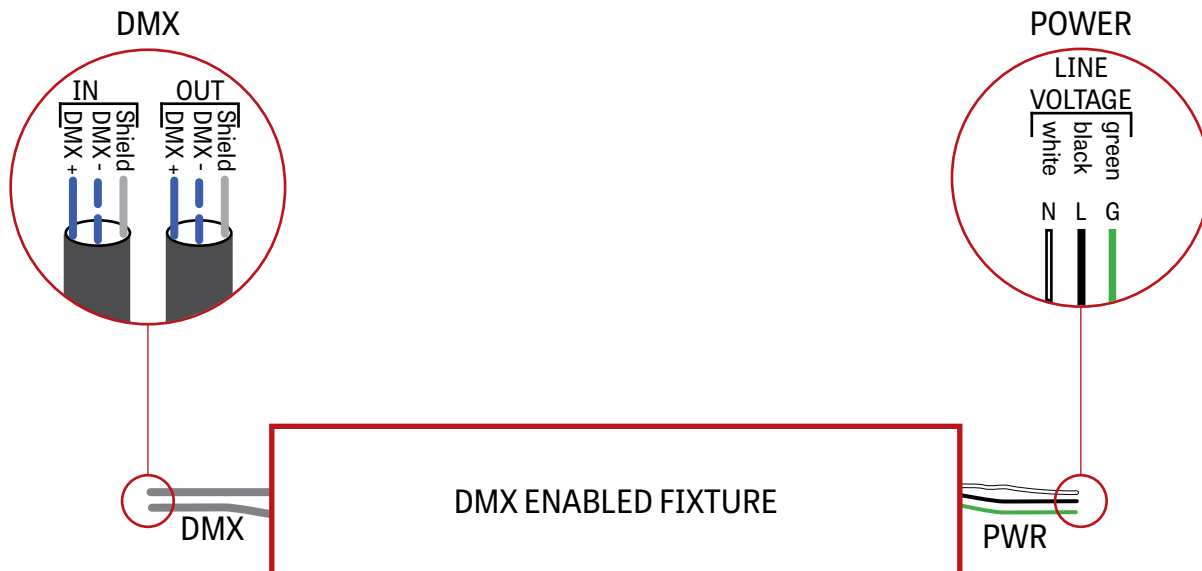
CHROMAWERX QUADRO - RGBW

4 DMX LAST FIXTURE DETAIL

120 OHM
END OF LINE
RESISTOR

CAP
OFF SHIELD

Last DMX OUT

+

−

S

DMX IN
From other fixtures

+

−

S

DMX + = Blue
DMX - = White-Blue
Shield = Bare metal

DMX
Driver

DMX +
DMX -
SHIELD

LAST FIXTURE OF THE DMX NETWORK
MAX 32 DRIVERS PER DMX RUN

LED output

DMX ENABLED FIXTURE

Intertek
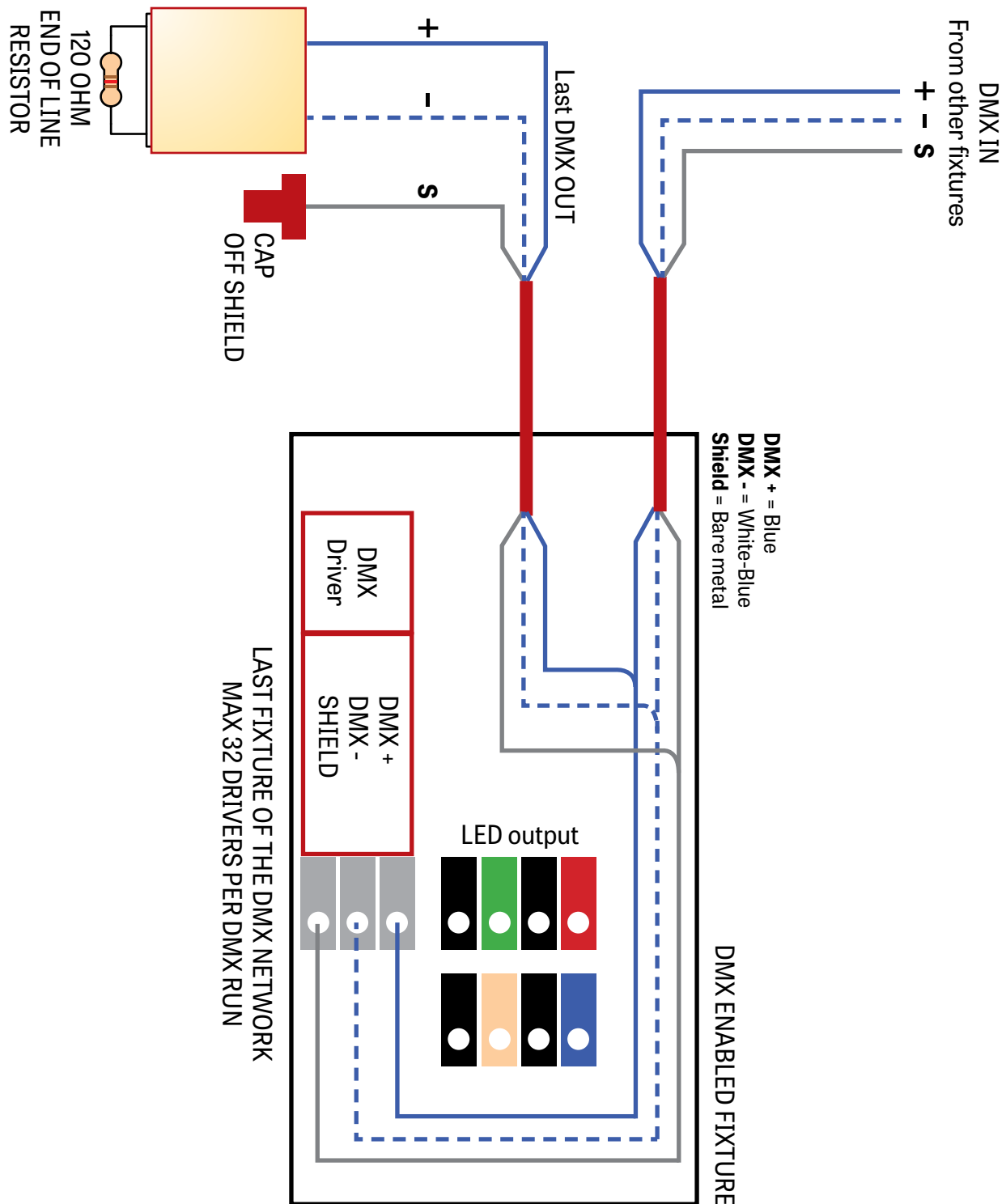
VIA 3 PERIMETER

RECESSED
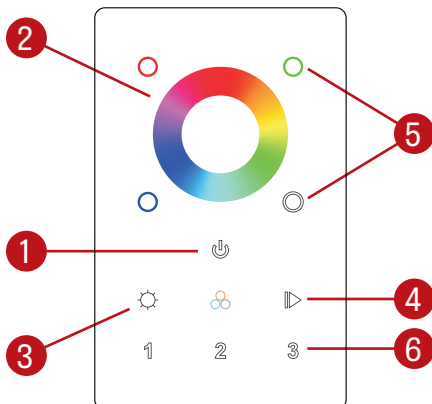
CHROMAWERX QUADRO - RGBW

DMX WALL CONTROLLER

WC1
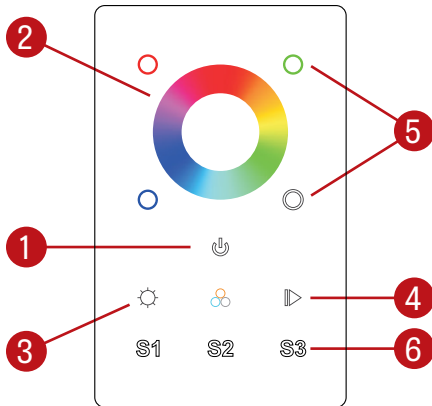
(1) Power: Use this button to turn ON or OFF the RGBW fixture.

(2) Color Wheel: The wheel is used to rapidly select a color (RGB colors only).

(3) Brightness (RGB): Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB brightness button.

(4) Color Cycle: This button will start an animation, rotating between Reds Greens and Blues, the arrows allow the user to speed up or slow down the animation.

(5) Individual Colors: By pressing and holding a color it will be possible to brighten or dim it. Quickly pressing a color will turn it OFF or turn it ON to its previous dim level.
White: In order to activate or deactivate and dim the White channel, the White button needs to be used.

(6) Scenes: By holding down one of the scenes button, the current color selection is saved. It can be later accessed by quickly pressing on one of the Scene buttons.

WC2

(1) Power: Use this button to turn ON or OFF the RGBW fixture.

(2) Color Wheel: The wheel is used to rapidly select a color (RGB colors only).

(3) Brightness: Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB brightness button.

(4) Color Cycle: This button will start an animation, rotating between Reds Greens and Blues, the arrows allow the user to speed up or slow down the animation.

(5) Individual Colors: By pressing a color it will be possible to brighten or dim that specific color.
White: In order to activate or deactivate and dim the White channel, the White button needs to be used.

(6) Zone: By holding down one of the zone buttons, a zone can be selected and controlled.

Default DMX Addresses:
1 Red
2 Green
3 Blue
4 White

ETL
LISTED
c us
Intertek