

Equation™ 2 1x4

LED



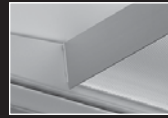
opal acrylic lens



MicroGlow lens

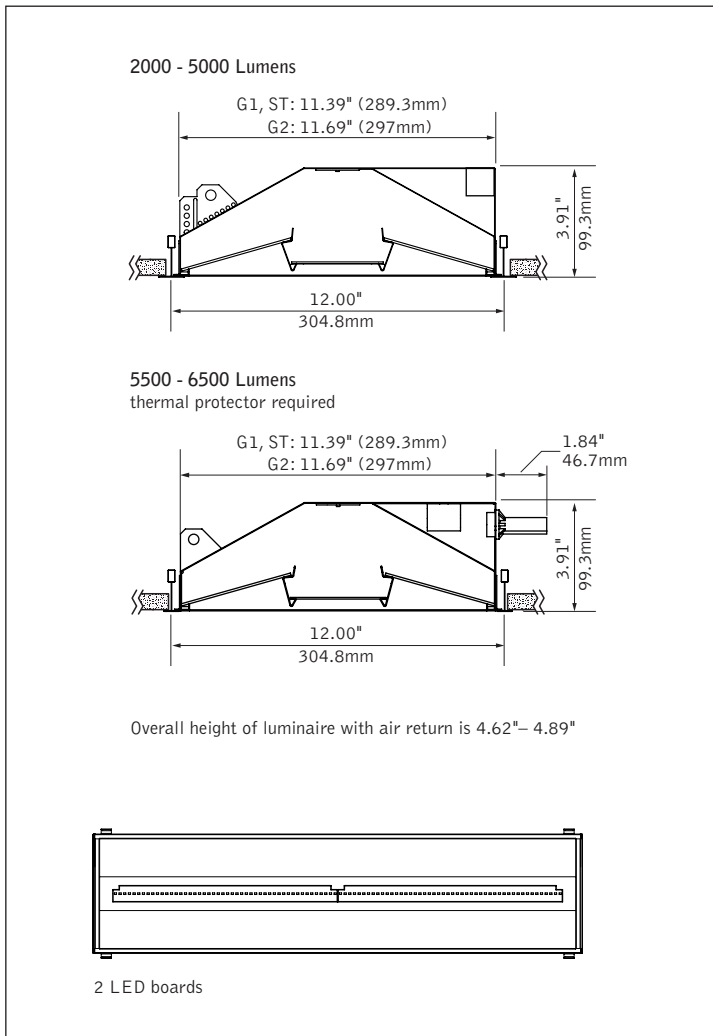


suspended or surface mount



air return

DIMENSIONAL DATA



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.

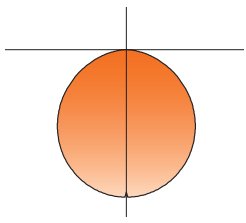
Premium LEDs operate efficiently to achieve excellent thermal management and reliable operation.

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.

PERFORMANCE



PRODUCT OVERVIEW

Lumen Output: 2000-6500lm

Wattage: 19-68W


LPW: 89-109

SDCM: 3

Opal Acrylic Lens

Delivered Lumens: 3500lm

Total System Watts: 37W

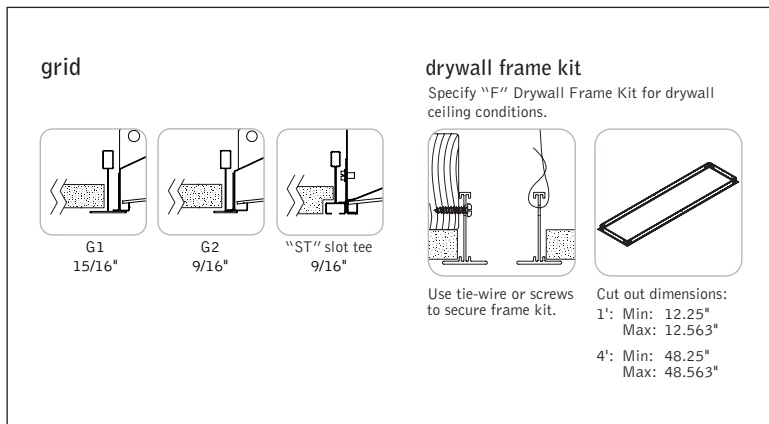


Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data. Visit designlights.org/QPL for model specifics.

fixture:

project:

MOUNTING INFORMATION



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. 3500K and 4000K with CRI>90 have a cyanosis observation index (COI) of 3.3 or less. Contact factory for additional color temperature and CRI options. 0-10V dimming driver standard. LED modules and drivers are replaceable from below.

Construction

One-piece 24 Ga. steel reflector and housing. Bottom access 24 Ga. steel driver compartment. Positional brackets supplied as standard. Standard weight: 19.4 lbs. Surface-mount/suspended weight: 24.2 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, Lutron EcoSystem or Step-dimming drivers available. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

Emergency

Emergency battery output—10 watts for 90 minutes. Emergency Circuit with Connected Solutions (NLT1, ENL1, CLM1, CLMZ1, DLM1) requires a UL924 compliant device, consult factory.

Labels

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

Finish

Polyster powder coat applied over a multi-stage pre-treatment.

Lumen Maintenance

Reported: L70 at >61,000 hours Calculated: L70 at 480,000 hours
L80 at >61,000 hours L80 at 285,000 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

Lumen Output	Tested System Watts	LPW	Lumen Output	Tested System Watts	LPW
2000	17	113	4500	41	107
2500	22	111	5000	46	107
3000	27	110	5500	60	92
3500	32	109	6000	67	89
4000	36	108	6500	76	86

Based on 3500K, 80 CRI, Opal Acrylic Lens. Lumen multipliers: Preferred Light = 0.65, 90+ CRI = 0.87, MicroGlow Prismatic Lens = 0.95. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.

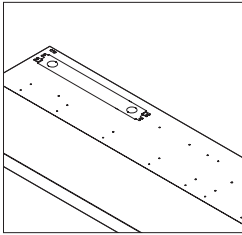
Focal Point LLC reserves the right to change specifications for product improvement without notification.

ORDERING

Luminaire Series	FEQ2
Equation 2	FEQ2
Nominal Size 1' x 4'	14
Shielding	
Opal Acrylic Lens	AC
MicroGlow Prismatic Lens	MG
Lumen Output	
2000 Lumens	2000L
2500 Lumens	2500L
3000 Lumens	3000L
3500 Lumens	3500L
4000 Lumens	4000L
4500 Lumens	4500L
5000 Lumens	5000L
5500 Lumens*	5500L
6000 Lumens*	6000L
6500 Lumens*	6500L
(*Grid, Slot Tee Only)	
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	P35K
Circuit	1C
Single Circuit	1C
Voltage	
UNV 120/277 Volt	UNV
(Not available with 5500L, 6000L & 6500L)	
120 Volt	120
277 Volt	277
347 Volt	347
(Not available with SD5, DLM1 or NLT1. ENL1, CLM1 & CLMZ1 recessed grid only. Transformer required for all drivers except LD1.)	
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. LV Voltage only)	
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1
Step Dimming	SD5
DALI - 1% Dimming	D11
Acuity nLight - 1% Dimming	NLT1
(Not available with EM or CP)	
Enlighted Smart Sensor - 1% Dimming	ENL1
(Cannot combine with 347V & EM.)	
Osram Connected Lighting Module for ENCELIIUM systems - 1% Dimming	CLM1
(Compatible with Osram ENCELIIUM and ENCELIIUM EDGE systems only. Cannot combine with 347V & EM.)	
Osram Connected Lighting Module for ZigBee Wireless Networks - 1% Dimming	CLMZ1
(Not compatible with Osram ENCELIIUM systems. Cannot combine with 347V & EM.)	
Wattstopper DLM - 1% Dimming	DLM1
Mounting	
24" Aircraft Cable	C24
48" Aircraft Cable	C48
96" Aircraft Cable	C96
Drywall Frame Kit	F
(NLT1, ENL1, CLM1, CLMZ1 & DLM1 not available) (Cut out dimensions: Min: 12.25"/Max: 12.563" Min: 48.25"/Max: 48.563")	
15/16" Grid	G1
9/16" Grid	G2
Slot Tee	ST
Surface Mount	SM
(NLT1 & DLM1 not available)	
Factory Options	
Air Return	AR
(Overall height with Air Return is 4.62"-4.89")	
Chicago Plenum	CP
Emergency Battery with Integral Test Switch	EM
(Cannot combine with 347V)	
6' New York City Flex Whip (120V)	FNY1
6' New York City Flex Whip (277V)	FNY2
6' Flex Whip	FW
Finish	WH
Matte Satin White	WH

QS 5/10 DAY Options in orange qualify for the Quickship program. 5-day up to 50 pieces, 10-day up to 150 pieces. Refer to Quickship Guide for complete details.

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.†



nLight® provides a two-way wired digital lighting system allowing for on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting.

Acuity nLight - 1% Dimming (NLT1)
Acuity Model #nEPS-60-IO

CAT-5 Cable provided by others. Serial labels will be provided on outside of luminaires and control unit.



Enlighted smart sensor allows for occupancy sensing, daylight harvesting, energy usage, temperature and light level control. Communicates wirelessly with the Enlighted network.

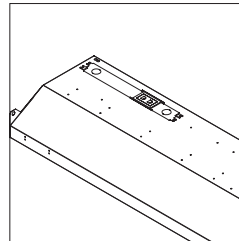
Enlighted Smart Sensor - 1% Dimming (ENL1)
Enlighted Model #SU-5E-IOT



Connected Lighting Module (CLM) enables each luminaire to be independently controlled and configured. Communicates wirelessly with Daintree Networks®, Osram ENCELIUM®, Osram ENCELIUM EDGE™, and other networks using the ZigBee® HA communication protocol to allow for on/off and dimming functionality, occupancy sensing and multi-zone daylight harvesting.

Osram CLM - 1% Dimming (CLM1 & CLMZ1)
Osram Model #ZBHA-CLM DIM

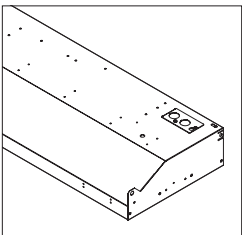
Serial labels will be provided on outside of luminaires and control unit.



A Digital Lighting Management (DLM) system that provides two-way wired communication between networked luminaires and control system to allow for on/off and dimming functionality, occupancy sensing and multi-zone daylight harvesting.

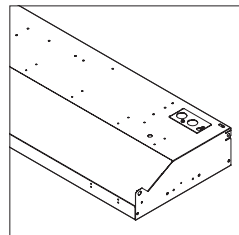
Wattstopper DLM - 1% Dimming (DLM1)
Wattstopper Model #LMFC-011

CAT-5 Cable provided by others. Serial labels will be provided on outside of luminaires and control unit.



A two-way digital network that enables on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting working with Quantum®, Energi Savr Node™, and Energi TriPak® using EcoSystem® communication protocol.

Lutron Hi-Lume EcoSystem - 1% Dimming (LH1)
Lutron Model #LDE1



A two-way digital network that enables on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting. Communicates with Züm wireless and SpaceBuilder working with Züm hub scheduling or FUSION management.

DALI - 1% Dimming (D11)
0-10V - 1% Dimming (L11)

Note: 0-10V is not a digital network but is compatible with Creston Züm™ system.

CONNECTED SOLUTIONS DETAILS

Connected Solution	Model #	Protocol	Compatible Networks*	Occupancy	Daylight	Temperature Reporting	Communication to Luminaire	Drivers
Acuity nLight (NLT1)	nEPS-60-IO**	nLight	nLight	Enabled	Enabled	No	Wired	eldoLED ECOdrive , eldoLED SOLOdrive
Crestron (D11, L11)	Specified Driver	DALI 0-10V	Crestron Züm Wireless & SpaceBuilder	Enabled	Enabled	No	Wired	eldoLED ECOdrive (DALI) , Advance by Signify (0-10V)
Enlighted Smart Sensor (ENL1)	SU-5E-IOT**	Enlighted RF	Enlighted	Integrated	Integrated	Yes	Wireless	Advance by Signify
Legrand Wattstopper DLM (DLM1)	LMFC-011**	DLM	DLM	Enabled	Enabled	No	Wired	Advance by Signify , Osram Optotronic
Lutron EcoSystem (LH1)	LDE1**	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	Enabled	No	Wired	Lutron Hi-Lume
Osram CLM for ENCELIUM systems (CLM1)	ZBHA-CLM**	ZigBee HA	Osram ENCELIUM & ENCELIUM EDGE	Enabled	Enabled	No	Wireless	Osram Optotronic
Osram CLM for ZigBee Wireless Networks (CLMZ1)	ZBHA-CLM**	ZigBee HA	Daintree Networks & open ZigBee Networks	Enabled	Enabled	No	Wireless	Osram Optotronic

*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.