

Equation™ 2 1x4

LED



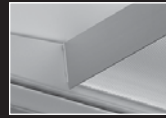
opal acrylic lens



MicroGlow lens

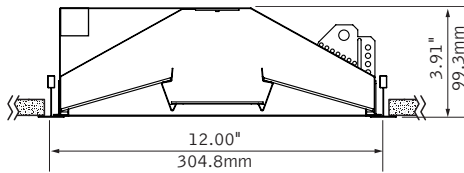


suspended or surface mount

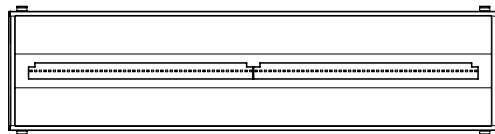


air return

DIMENSIONAL DATA



Overall height of luminaire with air return is 4.62"–4.89"



2 LED boards

FEATURES

Equation™ 2 blends sleek aesthetics with uniform diffuse illumination.

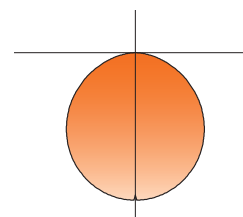
Center diffuser features MicroGlow prismatic lens for brightness control and visual comfort. Opal acrylic center lens may also be specified.

Premium LEDs operate efficiently 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.

PERFORMANCE



Opal Acrylic Lens
Delivered Lumens: 3500lm
Total System Watts: 37W

PRODUCT OVERVIEW

Lumen Output: 2000-5000lm
 Wattage: 21-57W
 LPW: 86-100
 SDCM: 3



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

grid

"G" flat tee
"ST" slot tee
4.62"-4.89"

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: 12.563"
4': Min: 48.25"
Max: 48.563"

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. 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.

Emergency Battery

Bodine BSL310-CAN. Emergency output—10 watts for 90 minutes.

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 >60,000 hours Calculated: L70 at 135,000 hours
 L80 at >60,000 hours L80 at 80,000 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
2000	21	98
2500	26	100
3000	31	98
3500	37	96
4000	43	93
4500	49	90
5000	57	86

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%.

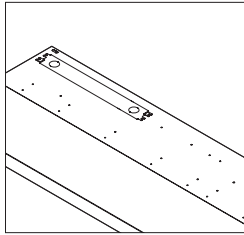
ORDERING

Luminaire Series	FEQ2	FEQ2
Equation 2	FEQ2	
Nominal Size	14	14
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	
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	
347 Volt	347	
<small>(Not available with SD5, DLM1 or NLT1. ENL1, CLM1 & CLMZ1 recessed grid only. Transformer required for all drivers except LD1.)</small>		
Control System & Dimming Level		
0-10V - 10% Dimming	LD1	
0-10V - 1% Dimming	L11	
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1	
Lutron 5-Series EcoSystem (LDE5) - 5% Dimming	LU5	
Step Dimming (120/277 only)	SD5	
DALI - 1% Dimming (3000 Lumens or less only)	D11	
Acuity nLight - 1% Dimming (Not available with EM or CP. 3000 Lumens or less only.)	NLT1	
Enlighted Smart Sensor - 1% Dimming (Cannot combine with 347V & EM.)	ENL1	
Osram Connected Lighting Module for ENCELIUM systems - 1% Dimming (Compatible with Osram ENCELIUM and ENCELIUM EDGE systems only. Cannot combine with 347V & EM.)	CLM1	
Osram Connected Lighting Module for ZigBee Wireless Networks - 1% Dimming (Not compatible with Osram ENCELIUM systems. Cannot combine with 347V & EM.)	CLMZ1	
Wattstopper DLM - 1% Dimming	DLM1	
Mounting		
24" Aircraft Cable	C24	
48" Aircraft Cable	C48	
96" Aircraft Cable	C96	
Drywall Frame Kit	F	
<small>(NLT1, ENL1, CLM1, CLMZ1 & DLM1 not available) (Cut out dimensions: Min: 12.25"/Max: 12.563" Min: 48.25"/Max: 48.563")</small>		
Grid	G	
Slot Tee	ST	
Surface Mount	SM	
<small>(NLT1 & DLM1 not available)</small>		
Factory Options		
Air Return (Overall height with Air Return is 4.62"-4.89")	AR	
Chicago Plenum	CP	
Emergency Battery Pack with Integral Test Switch (Cannot combine with 347V)	EM	
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	



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.

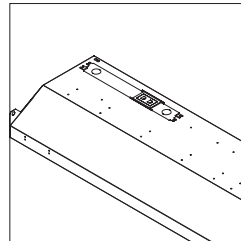
Enlighted Smart Sensor - 1% Dimming (ENL1)
Enlighted Model #SU-4E-01



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

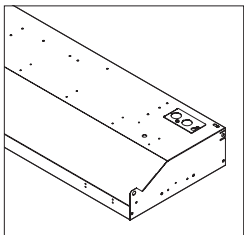
Serial labels will be provided on outside of luminaires and control unit.



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.

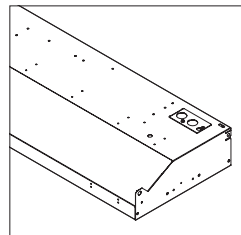
Wattstopper DLM - 1% Dimming (DLM1)
Wattstopper Model #LMFC-011

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
Lutron 5-Series EcoSystem - 5% Dimming (LU5)
Lutron Model #LDE5



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) , Philips Xitanium (0-10V)
Enlighted Smart Sensor (ENL1)	SU-4E-01**	Enlighted RF	Enlighted	Integrated	Integrated	Yes	Wireless	Osram Optotronic , Philips SimpleSet
Legrand Wattstopper DLM (DLM1)	LMFC-011**	DLM	DLM	Enabled	Enabled	No	Wired	Osram Optotronic , Philips SimpleSet
Lutron EcoSystem (LH1 & LU5)	LDE1**, LDE5**	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	Enabled	No	Wired	Lutron Hi-Lume Lutron 5-Series
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.