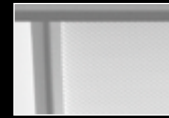


# Equation™ 2 2x4

LED



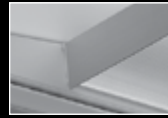
opal acrylic lens



MicroGlow lens

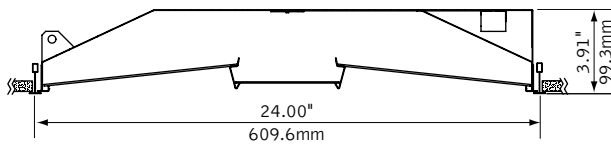


suspended or surface mount



air return

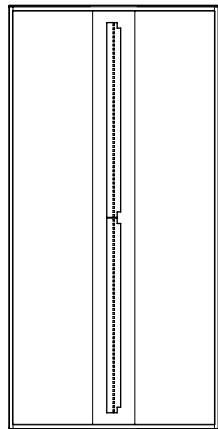
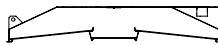
## DIMENSIONAL DATA



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

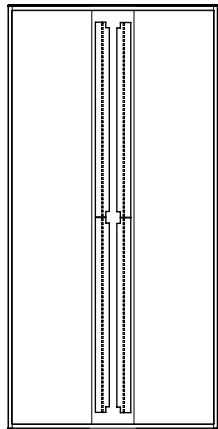
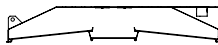
### led options

Standard



2 LED boards

High Efficiency



4 LED boards

## FEATURES

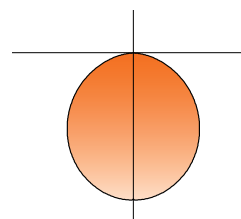
Equation™ 2 blends sleek aesthetics with uniform diffuse illumination.

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.

## PERFORMANCE



Opal Acrylic Lens  
**Delivered Lumens: 5000lm**  
**Total System Watts: 47W**

### PRODUCT OVERVIEW

Lumen Output: 4000-8500lm  
 Wattage: 37-85W  
 LPW: 86-112  
 SDCM: 3



Photometric performance is measured in accordance with IESNA LM-79. Visit [focalpointlights.com](http://focalpointlights.com) for complete photometric data. Visit [designlights.org/QPL](http://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:  
2': Min: 24.25"  
Max: 24.563"  
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 3000K, 3000K or 4000K with CRI>80, 3 SDCM. 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: 27.3 lbs. Surface-mount/suspended weight: 35.5 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 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
4000 Lumens	4000L	41	97
	4000LH	37	112
4500 Lumens	4500L	47	94
	4500LH	42	110
5000 Lumens	5000L	54	90
	5000LH	47	108
5500 Lumens	5500L	61	86
	5500LH	53	105
6000 Lumens	6000LH	59	102
6500 Lumens	6500LH	63	101
7000 Lumens	7000LH	68	100
7500 Lumens	7500LH	73	100
8000 Lumens	8000LH	78	99
8500 Lumens	8500LH	85	97

Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%. Multipliers: 2700K - 0.949, 3000K - 0.966, 4000K - 1.025.

**ORDERING**

Luminaire Series	FEQ2
Equation 2	FEQ2
<b>Nominal Size</b>	<b>24</b>
2' x 4'	24
<b>Shielding</b>	
Opal Acrylic Lens	AC
MicroGlow Prismatic Lens	MG
<b>Lumen Output</b>	
Standard	
4000 Lumens	4000L
4500 Lumens	4500L
5000 Lumens	5000L
5500 Lumens	5500L
High Efficiency	
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
8500 Lumens	8500LH
<b>Color Temperature</b>	
3000K	30K
3500K	35K
4000K	40K
<b>Circuit</b>	<b>1C</b>
Single Circuit	1C
<b>Voltage</b>	
UNV 120/277 Volt	UNV
347 Volt	347
<small>(Not available with SD5 or DLM.)</small>	
<b>Control System &amp; Dimming Level</b>	
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	SD5
<small>(6000 lumens or less only. 120/277 only.)</small>	
Enlighted Smart Sensor - 1% Dimming	ENL1
<small>(Cannot combine with 347V &amp; EM.)</small>	
Osram Connected Lighting Module - 1% Dimming	CLM1
<small>(5500 Lumens or less. Cannot combine with 347V &amp; EM. Compatible with Daintree Networks &amp; Osram ENCELUM and Simlux systems.)</small>	
Wattstopper DLM - 1% Dimming	DLM1
<b>Mounting</b>	
24" Aircraft Cable	C24
48" Aircraft Cable	C48
96" Aircraft Cable	C96
Drywall Frame Kit	F
<small>(ENL1, CLM1 &amp; DLM1 not available)</small>	
<small>(Cut out dimensions: Min: 24.25"/Max: 24.563" Min: 48.25"/Max: 48.563")</small>	
Grid	G
Slot Tee	ST
Surface Mount	SM
<small>(Not available with DLM1)</small>	
<b>Factory Options</b>	
Air Return	AR
<small>(Overall height with Air Return is 4.62"-4.89")</small>	
Chicago Plenum	CP
Emergency Battery Pack with Integral Test Switch	EM
6' New York City Flex Whip (120V)	FNY1
6' New York City Flex Whip (277V)	FNY2
6' Flex Whip	FW
<b>Finish</b>	<b>WH</b>
Matte Satin White	WH



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.

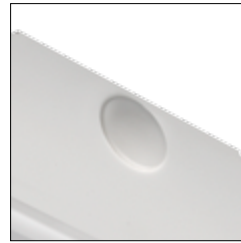
Focal Point provides flexibility in meeting the needs of each project by integrating with several building lighting control systems. A variety of sensors, drivers and other components can be specified that allow the luminaires to communicate with wired and wireless networks. All zoning can be digitally 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.



**enlighted**

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

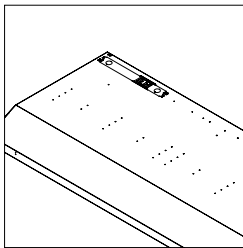


**OSRAM**

Connected Lighting Module (CLM) enables each luminaire to be independently controlled and configured. Communicates wirelessly with Daintree Networks®, Osram ENCELIUM®, Osram Simlux™ 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)  
Osram Model #ZBHA-CLM DIM

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

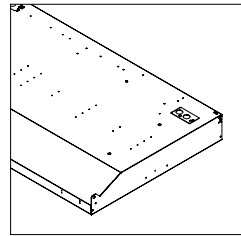


**legrand**® WATTSTOPPER®

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.



**LUTRON**®

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



**CONNECTED SOLUTIONS DETAILS**

Connected Solution	Model #	Protocol	Compatible Networks*	Occupancy	Daylight	Temperature Reporting	Communication to Luminaire	Drivers
Enlighted Smart Sensor (ENL1)	SU-4E-01**	Enlighted RF	Enlighted	Integrated	Integrated	Yes	Wireless	<b>Osram Optotronic,</b> Philips SimpleSet
Legrand Wattstopper DLM (DLM1)	LMFC-011**	DLM	DLM	Enabled	Enabled	No	Wired	<b>Osram Optotronic,</b> Philips SimpleSet
Lutron EcoSystem (LH1 & LU5)	LDE1**, LDE5**	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	Enabled	No	Wired	<b>Lutron Hi-Lume</b> <b>Lutron 5-Series</b>
Osram CLM (CLM1)	ZBHA-CLM**	ZigBee HA	Osram ENCELIUM & Simlux, Daintree Networks	Enabled	Enabled	No	Wireless	<b>Osram Optotronic</b>

\*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.

# Equation™ 2 2x4

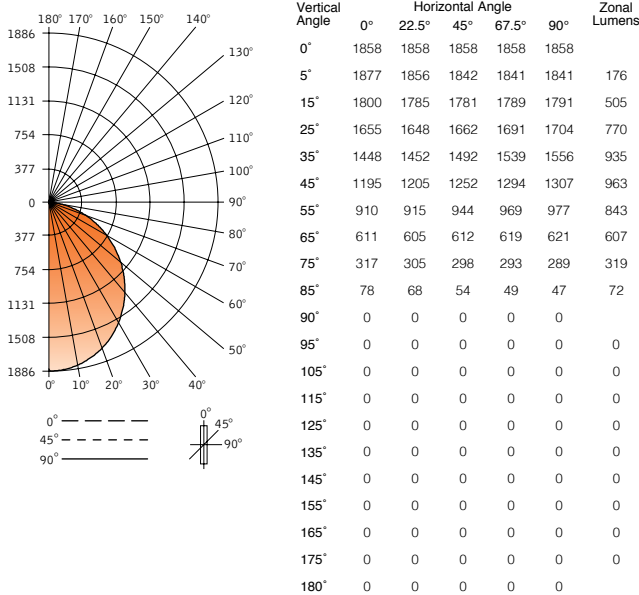
LED

## FEQ2-24-AC-5000LH-35K-1C-UNV-LD1

Filename: FEQ224AC5000LH35K.IES  
 Test #: 1246030 extrapolated

Lumens: 5190lm  
 System Watts: 48W  
 LPW: 108

### CANDLEPOWER DISTRIBUTION



### LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	1450	27.9
0-40°	2386	46.0
0-60°	4191	80.8
0-90°	5190	100.0
<b>Total Luminaire 0-180°</b>	<b>5190</b>	<b>100.0</b>

### LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	2446	2564	2676
55°	2296	2383	2465
65°	2092	2096	2128
75°	1775	1667	1618
85°	1298	902	779

### CO-EFFICIENTS OF UTILIZATION

Floor Ceiling Wall	80				70			20 50		30		10		00
	70	50	30	10	70	50	10	50	10	50	10	50	10	00
RCR 0	119	119	119	119	116	116	116	111	111	106	106	102	102	100
1	109	104	100	97	106	102	95	98	92	94	89	90	87	84
2	99	91	85	79	97	89	78	86	76	83	74	80	73	71
3	91	80	72	66	88	79	65	76	64	73	63	70	62	60
4	83	71	62	56	81	70	55	67	55	65	54	63	53	51
5	76	64	55	48	74	62	48	60	47	58	47	56	46	44
6	70	57	48	42	69	56	42	54	41	53	41	51	41	39
7	65	52	43	37	64	51	37	50	37	48	36	47	36	34
8	61	47	39	33	59	47	33	45	33	44	32	43	32	30
9	57	43	35	30	55	43	30	42	29	41	29	40	29	27
10	53	40	32	27	52	40	27	39	27	38	27	37	26	25

Numbers indicate percentage values of reflectivity.

Go to [www.focalpointlights.com](http://www.focalpointlights.com) for additional photometric data.

# Equation™ 2 2x4

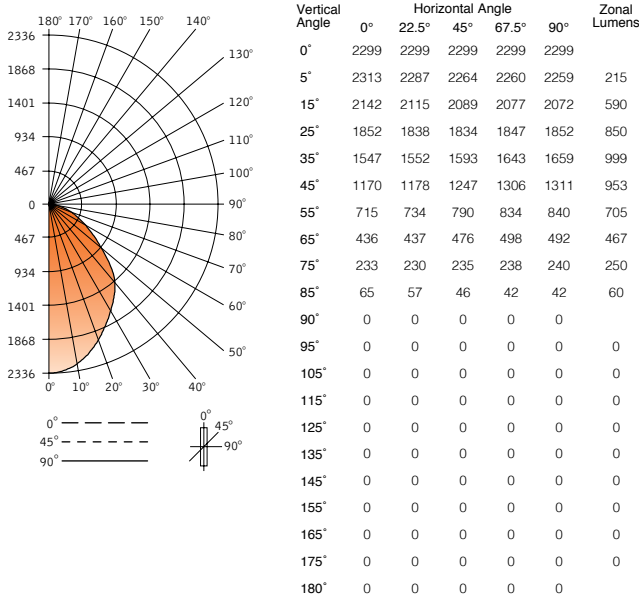
LED

## FEQ2-24-MG-5000LH-35K-1C-UNV-LD1

Filename: FEQ224MG5000LH35K.IES  
 Test #: 1237072 extrapolated

Lumens: 5088lm  
 System Watts: 48W  
 LPW: 106

### CANDLEPOWER DISTRIBUTION



### LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30°	1655	32.5
0-40°	2653	52.1
0-60°	4312	84.7
0-90°	5088	100.0
<b>Total Luminaire 0-180°</b>	<b>5088</b>	<b>100.0</b>

### LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	2422	2581	2713
55°	1824	2017	2143
65°	1510	1650	1703
75°	1317	1330	1356
85°	1084	765	704

### CO-EFFICIENTS OF UTILIZATION

Floor Ceiling Wall	80				70			20 50		30		10		00
	70	50	30	10	70	50	10	50	10	50	10	50	10	00
RCR 0	119	119	119	119	116	116	116	111	111	106	106	102	102	100
1	110	105	102	98	107	103	97	99	93	95	91	92	88	86
2	101	93	87	82	98	91	81	88	79	85	77	82	75	73
3	92	83	75	69	90	81	68	78	67	76	66	73	65	63
4	85	74	66	59	83	73	59	70	58	68	57	66	57	55
5	79	67	58	52	77	65	52	63	51	61	50	60	50	48
6	73	60	52	46	71	59	45	58	45	56	45	54	44	42
7	68	55	47	41	66	54	41	53	40	51	40	50	40	38
8	63	50	42	37	62	50	36	48	36	47	36	46	36	34
9	59	46	38	33	58	46	33	45	33	44	33	43	33	31
10	56	43	35	30	54	42	30	41	30	40	30	40	30	28

Numbers indicate percentage values of reflectivity.

Go to [www.focalpointlights.com](http://www.focalpointlights.com) for additional photometric data.