

# Equation™ 2 2x4

LED



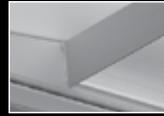
opal acrylic lens



MicroGlow lens

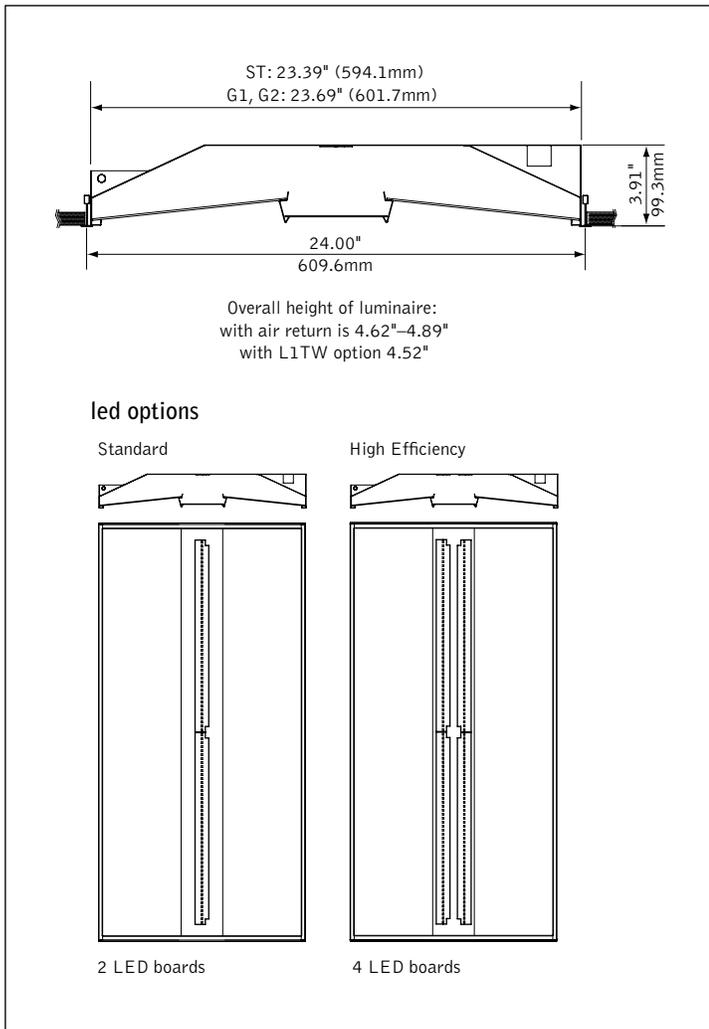


suspended or surface mount



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.

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

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.

## PERFORMANCE

**PRODUCT OVERVIEW**

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

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

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

**MOUNTING INFORMATION**

**grid**

G1 15/16"  
G2 9/16"  
"ST" slot tee 9/16"

**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 2700K, 3000K, 3500K, 4000K or Tunable White (2700K-6500K), 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: 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. 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 (DLM1, LMFS1, LMFS1, 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.

**Lumen Maintenance**

Reported: L70 at >61,000 hours      Calculated: L70 at 460,000 hours  
L80 at >61,000 hours                      L80 at 280,000 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.

**STANDARD WHITE PERFORMANCE CHART**

Lumen Output	Tested System Watts		LPW	Lumen Output	Tested System Watts		LPW
	4000L	4000LH			6000L	6000LH	
4000	4000L	33	119	6000	6000LH	47	123
	4000LH	31	126	6500	6500LH	51	122
4500	4500L	39	112	7000	7000LH	55	121
	4500LH	34	129	7500	7500LH	59	120
5000	5000L	45	106	8000	8000LH	63	119
	5000LH	37	129	8500	8500LH	67	118
5500	5500L	51	106				
	5500LH	43	124				

Based on 3500K, 80 CRI, Opal Acrylic Lens. Lumen multipliers: 90+ CRI = 0.87, MicroGlow Prismatic Lens = 0.94. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.

**STANDARD WHITE**

Luminaire Series		FEQ2
Equation 2		FEQ2
Nominal Size		24
2' x 4'		24
Shielding		
Opal Acrylic Lens		AC
MicroGlow Prismatic Lens		MG
Lumen Output		
Standard Output	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	
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
Circuit		1C
Single Circuit		1C
Voltage		
UNV 120/277 Volt		UNV
347 Volt		347
<small>(Transformer required for all drivers except LD1 and CLM1. Not available with EM)</small>		
Low Voltage		LV
Control System & Dimming Level		
0-10V - 10% Dimming <small>(Not Right Light as standard, consult factory)</small>		LD1
0-10V - 1% Dimming		L11
Low Voltage, PoE compatible <small>(No driver. Not available with EM. LV Voltage only)</small>		LVN
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming		LH1
Step Dimming		SD5
Wattstopper DLM - 1% Dimming <small>(Not available with CP)</small>		DLM1
Wattstopper Fixture Sensor		LMFS1
Low Density - 1% Dimming		
Wattstopper Fixture Sensor		LMFS1
High Density - 1% Dimming		
Enlighted Smart Sensor - 1% Dimming		ENL1
Encelium CLM Connected Lighting Module - 1% Dimming <small>(Maximum 5500 Lumens)</small>		CLM1
Current NX Enabled - 1% Dimming <small>(Not available with CP)</small>		NXE1
WaveLinX Pro - 1% Dimming		WLXP
Mounting		
24" Aircraft Cable		C24
48" Aircraft Cable		C48
96" Aircraft Cable		C96
Drywall Frame Kit		F
<small>(Not available with CLM1, DLM1, NLT1 or NXE1.) (Cut out dimensions: Min: 24.25"/Max: 24.563" Min: 48.25"/Max: 48.563")</small>		
15/16" Grid		G1
9/16" Grid		G2
Slot Tee		ST
Surface Mount		SM
<small>(Not available with CLM1, DLM1, NLT1 or NXE1.)</small>		
Factory Options		
Air Return <small>(Overall height with Air Return is 4.62"-4.89")</small>		AR
Chicago Plenum <small>(Not available with flex whip)</small>		CP
Emergency Battery with Integral Test Switch <small>(Cannot combine with 347V)</small>		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

**MOUNTING INFORMATION**

**grid**



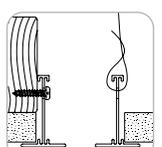
G1  
15/16"

G2  
9/16"

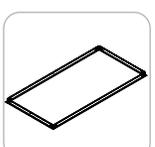
"ST" slot tee  
9/16"

**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"

**TUNABLE WHITE PERFORMANCE CHART**

Lumen Output		Delivered Lumens	Tested System Watts	LPW
4000	4000L	3998	41	98
	4000LH	4002	40	101
4500	4500L	4497	46	98
	4500LH	4510	45	101
5000	5000L	5011	51	98
	5000LH	5015	50	101
5500	5500L	5517	61	91
	5500LH	5517	59	94
6000	6000LH	6061	64	95
6500	6500LH	6512	67	98
7000	7000LH	7006	71	98
7500	7500LH	7519	77	98
8000	8000LH	8006	82	98
8500	8500LH	8512	86	99

Based on 2700K, 80 CRI, Opal Acrylic Lens. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.

**Lumen Multipliers**

CRI	Multiplier
80+	1.00
90+	0.89

Shielding	Multiplier
AC	1.00
MG	0.94

**Wattage Multipliers**

CCT	Multiplier
2700K	1.00
3000K	0.92
3500K	0.88
4000K	0.86
5000K	0.85
5700K	0.87
6500K	0.90



**TUNABLE WHITE**

**Luminaire Series**

Equation 2 FEQ2

**Nominal Size**

2' x 4' 24

**Shielding**

Opal Acrylic Lens AC  
MicroGlow Prismatic Lens MG

**Lumen Output**

Standard Output	Lumen Output	Code
Standard Output	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	

**Color Temperature**

Tunable White: 2700-6500K, 80+ CRI 2765T  
Tunable White: 2700-6500K, 90+ CRI 92765T

**Circuit**

Single Circuit 1C

**Voltage**

UNV 120/277 Volt UNV

**Control System & Dimming Level**

0-10V - 1% Dimming L1TW  
(Not available with surface or cable mount. Overall luminaire height increases to 4.52")

Lutron T-Series - 1% Dimming LT1  
DALI - 1% Dimming D1TW  
(DT6 control. Requires two addresses, one for intensity & one for CCT tuning. Consult factory for DT8.)

**Mounting**

24" Aircraft Cable (Not available with L1TW) C24  
48" Aircraft Cable (Not available with L1TW) C48  
96" Aircraft Cable (Not available with L1TW) C96

**Drywall Frame Kit**

(Cut out dimensions: Min: 24.25"/Max: 24.563"  
Min: 48.25"/Max: 48.563")

15/16" Grid G1  
9/16" Grid G2  
Slot Tee ST

Surface Mount (Not available with L1TW) SM

**Factory Options**

Air Return AR  
(Overall height with Air Return is 4.62"-4.89")

Chicago Plenum CP  
(Not available with flex whip)

Emergency Battery 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

**Finish**

Matte Satin White WH

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	
 <b>legrand</b> WATTSTOPPER®		DLM1	LMFC-011	DLM	DLM	Enabled	No	Wired 	<b>Advance by Signify,</b> Optotronic by eldoLED
		LMFS1	LMFS-601 & LMFI-111	DLM Wireless	DLM	Enabled	No	Wireless	<b>Advance by Signify</b>
	LMFSD	LMFS-601	<b>Optotronic by eldoLED (Dexal)</b>						
 <b>COOPER</b> Lighting Solutions		WLXP	OEM-WAA	WaveLinx Wireless	WaveLinx Pro Trellix	Enabled	No	Wireless (WaveLinx Pro Wireless Area Controller)	<b>Advance by Signify</b>
 <b>CRESTRON</b>		L11	Specified Driver	0-10V	Crestron Züm Wireless & SpaceBuilder	Enabled	No	Wired	<b>Advance by Signify</b>
 <b>ENCELIUM</b>		CLM1	ZBHA-CLM-DIM-ENC	ZigBee	Encelium X Light Management System	Enabled	No	Wireless	<b>Optotronic by eldoLED</b> Advance by Signify
 <b>Enlighted</b>		ENL1	SU-5E-IOT	Enlighted RF	Enlighted	Integrated	Yes	Wireless	<b>Advance by Signify</b>
 <b>LUTRON</b>		LH1	LDE1	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	No	Wired	<b>Lutron Hi-Lume</b>
 <b>LIGHTING CONTROLS</b>		NXE1	NXFM-LV	NX	NX Distributed Intelligence	Enabled	No	Wired 	<b>Optotronic by eldoLED</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. †Controls systems supplied by others.