High Performance Recessed (HPR-LED-EP) 2x2 **Surface Mount High Output (HO)**

Date

Project

Type

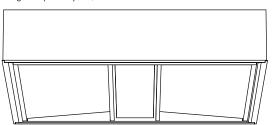
Comments



DESCRIPTION



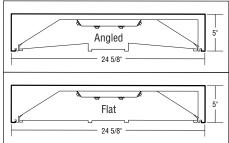




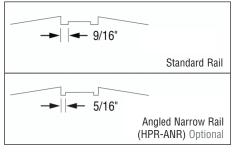
Refer to page 2 for all door styles

HPR LED-EP Surface Mount is a highly effective luminaire delivering excellent visual comfort and outstanding performance. This enhanced performance luminaire features a very uniform diffuser aesthetic. Advanced optical design makes the HPR LED-EP Surface Mount a powerful solution for low-ceiling applications and eliminates the shadows common to other LED products.

This Product is enrolled in the International Living Future Institute (ILFI) Declare 2.0 Program and is third-party verified with options achieving Red List Approved and Declared status.



Shown with Surface Mount kit **DIMENSIONS**



NARROW RAIL OPTION

The available angled door style with the same center optic choices. The optional narrow rails are approximately 5/16" wide. The standard center rails are approximately 9/16" wide.



100 % SERVICEABLE FROM BELOW

The replaceable light engine and driver are easy to access from below the ceiling.

ORDERING GUIDE

Sample Number: HPR LED-EP - A - 2x2 - DCO - H - 835 - 277V - SC - SM - OBO - RLA

HPR LED-EP
Finelite Series HPR LED-EP
Door Styles (A - Angled, ANR - Angled Narrow Rail, ————————————————————————————————————
F - Flat, CS - Curved Slotted1)
Size (2x2) —
Center Optic (DCO - Diffuse Center, SCO - Slotted Center, RCO - Round Center) ²
Light Output (H - High, V - Very High)
LED CRI/CCT (830 - 80 CRI min, 3000K 930 - 90 CRI min, 3000K —
835 - 80 CRI min, 3500K 935 - 90 CRI min, 3500K
840 - 80 CRI min, 4000K 940 - 90 CRI min, 4000K
Voltage (120V, 277V) —
Circuiting (SC - Single Circuit)
Ceiling Type (SM - Surface Mount)
Integrated Sensors (OBD - Daylight, OBO - Occupancy, OBB - Both)
Special Options (RLA - Red List Approved, RLD - Declared Label)

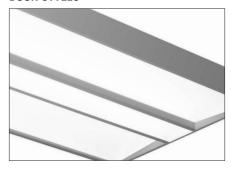
¹ Curved Slotted door not available with Center Optic options

² Only available on Angled (A), Angled Narrow Rail (ANR) and Flat (F) door options

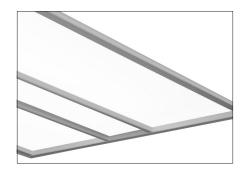
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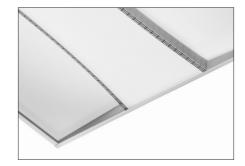
DOOR STYLES



A - Angled ANR - Angled Narrow Rail



F - Flat

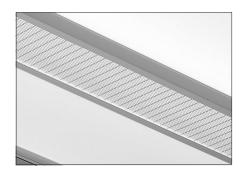


CS - Curved Slotted

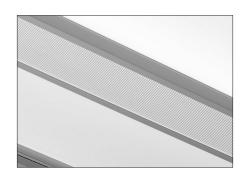
CENTER OPTICS



DCO - Diffuse Center

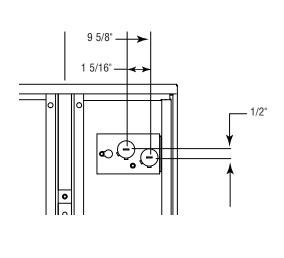


SCO - Slotted Center

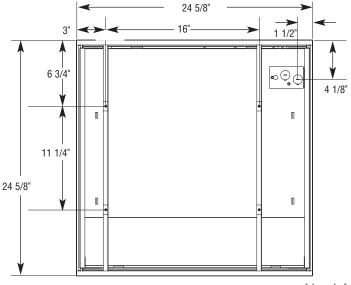


RCO - Round Center

WIRING ACCESS DETAIL



MOUNTING INFORMATION



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LED 🐸 BUY AMERICAN ACT OF 2009 COMPLIANT High Performance Recessed (HPR-LED-EP) 2x2 Surface Mount High Output (HO)

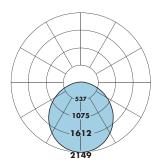
PHOTOMETRY

HPR LED-EP-F-2x2-DCO-V Very High Output - Flat Rail Efficacy: 101 lumens per watt Total Luminaire Output: 5871 Lumens 58.3 Watts

Peak Candela Value: 2149 @ 0°

CCT: 3500K

ITL LM79 Report: 85144



0.0 22.5 45 67.5 ACROSS Flux 0 2149 2149 2149 2149 2149 5 2139 2139 2139 2139 203 10 2109 2109 2107 2106 2106 15 2051 2052 2052 2054 2054 579 20 1975 1975 1978 1981 1983 25 1879 1880 1883 1890 1894 868 30 1769 1769 1773 1783 1786 35 1645 1643 1649 1662 1665 1033 40 1508 1507 1515 1527 1531 45 1362 1361 1368 1380 1386 1057	
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65 712 708 708 713 718 703	
70 539 538 534 536 540	
75 370 367 363 365 368 388 80 214 211 206 208 208	
85 84 82 78 79 80 97	
90 0 0 0 0 0	

Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens)		
H*	V**	
4508	5871	
Power, 3500K, 80 CRI (Watts)		
H*	V**	
42.9	58.3	
Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
H*	V**	
105	101	

^{*} Family Correlation based on 3500K Very High Output (V) test - 120V.

^{**} Based on ITL report: 85144

Angled Narrow Rail (ANR) Total Light Output, 3500K, 80 CRI (Lumens)		
H*	$V_{\hat{x}}$	
4451	5796	
Power, 3500K, 80 CRI (Watts)		
H*	V _x	
43.0	58.4	
Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
H*	V [¥]	
103	99	

^{*} Family Correlation based on 3500K Very High Output (V) test - 120V.

H - High Output, V - Very High Output

Lumen Adjustmen	nt Factors - 80 CRI
3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustmen	t Factors - 90 CRI
3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

SAMPLE LUMEN ADJUSTMENT CALCULATION

High Output (H) Angled (A) & Flat (F) 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output = $4508 \text{ Im } \times 0.789 = 3557 \text{ Im}$

$$Efficacy = \frac{3557 \ lm}{43.0 \ W} = 83 \ lm/W$$

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[¥] Based on ITL report: 85150

High Performance Recessed (HPR-LED-EP) 2x2 **Surface Mount High Output (HO)**

SPECIFICATIONS -

CONSTRUCTION: Die-formed 20-gauge cold-rolled steel housing. All components are hard-tooled to tolerances of +/- 0.010". UV stabilized weather-strip pile gasket with polypropylene backing. Hinged door frame assembly provides easy access to light arrays and driver compartment for servicing from below. Seismic brackets are integrated into the lumnaire assembly.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96LG high reflectance matte white powder coat paint.

AIR RETURN: Refer to 2x2 Air Return Tech Sheet for more information. Available with Angled (A) and Flat (F) luminaire style only.

OPTICAL SYSTEM: Components include diffuser panels and a central optic element held in place with a frame constructed from die-formed cold-rolled steel. The diffusers are UV-stabilized and impact-resistant frosted virgin acrylic, 0.120" thick. They are either angled toward the central optic or parallel to the ceiling plane. The standard center rails are approximately 9/16" wide. Optional narrow rails are approximately 5/16" wide.

DOOR STYLE: Curved Slotted (CS) includes perforated rails that slope inward and a diffuse frosted acrylic center optic.

CENTER OPTIC OPTIONS: Only available with Angled (A), Angled Narrow Rail (ANR), and Flat (F) door styles.

Diffuse Center Optic (DCO): UV-stabilized and impactresistant frosted virgin acrylic.

Slotted Center Optic (SCO): Die-formed cold-rolled steel panel with 1/16" x 1/2" rectangular hole pattern. Virgin acrylic overlay.

Round Center Optic (RCO): Die-formed cold-rolled steel panel with precision-punched 3/32" round hole pattern arranged in staggered formation. Virgin acrylic overlay.

LIGHT OUTPUT: Two lumen packages available, High (H) and Very High (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100.000+ hours: 70% of initial light output (L70) at 200,000+ hours.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10% - 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: ≥0.9. Total Harmonic Distortion (THD): <20%.

LUTRON DRIVER OPTIONS: LUTES1 (Hi-lume 1% EcoSystem with Soft-On, Fade to Black dimming (LDE1 series)); LUTES5 (5-Series 5% EcoSystem (LDE5 Series)), LUT2W (Hi-lume 1% 2-wire, 120V forward phase dimming (LTEA series)); Contact factory for availability of discontinued Lutron drivers, L3DA-3-wire and L3DA EcoSystem.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. Bodine BSL722 battery pack also available. Backup batteries deliver 2199 lumens. One half of the 2x2 will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: Standard flange design works with most lay-in ceiling types. Integral pry-out tabs secure the luminaire to the ceiling grid from above. Tie-in locations for tie-wire on all corners. Consult local code for appropriate tie-wire recommendations. Drywall Kit available.

FINISH: Housing and door assembly painted with 96 LG high reflectance matte white powder coat paint. Optional adder: Anti-microbial paint. Contact factory.

FEED: Optional whips (with flex connectors) supplied in a maximum of 11' lengths. Lead Wires.

LABELS: Luminaire and electrical components are ETLlisted conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2011/65/EU. Finelite makes the specification process easy when putting healthier products on your projects. Simply add - RLA (Red List Approved) or - RLD (Declared Label) to your part number.

WEIGHT: 16 lbs maximum.

10-YEAR WARRANTY: 10-year performance-based warranty on **High Output** with all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

5-YEAR WARRANTY: 5-year performance-based warranty on Very High Output with all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

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