

High Performance Recessed (HPR LED-EP) 2x4



Date

Project

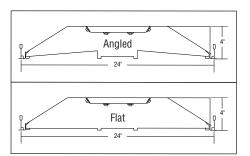
Туре

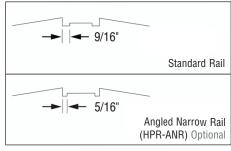
Comments

DESCRIPTION

HPR LED-EP is a recessed luminaire delivering excellent visual comfort and outstanding performance. This luminaire features very uniform illumination of the diffusers. Advanced optical design make HPR LED-EP a powerful solution for low-ceiling applications.

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.







DIMENSIONS

NARROW RAIL OPTION

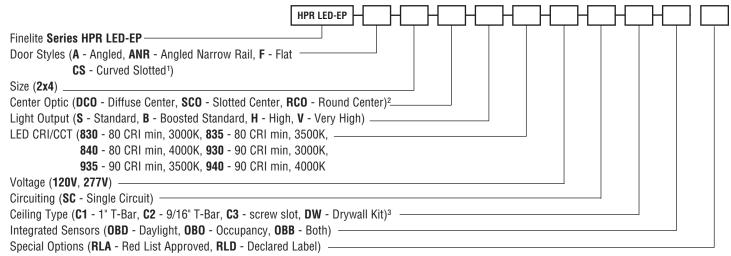
The available angled door style with the same center optic choices. The optional narrow rails are approximately 5/16" wide. The standard center rails are approximately 9/16" wide.

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 - 2x4 - DCO - S - 835 - 277V - SC - C1 - OBO - RLA



¹ Curved Slotted door not available with Center Optic options

² Only available with Angled (A), Angled Narrow Rail (ANR) and Flat (F) door options ³ Surface Mount available

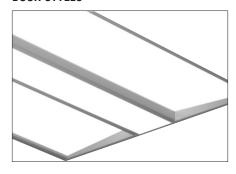
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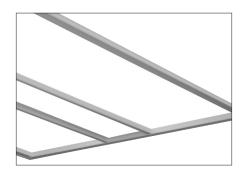


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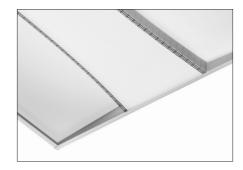
DOOR STYLES



A - Angled ANR - Angled Narrow Rail



F - Flat

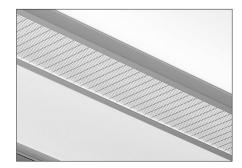


CS - Curved Slotted

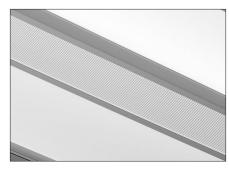
CENTER OPTICS



DCO - Diffuse Center



SCO - Slotted Center



RCO - Round Center





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PHOTOMETRY

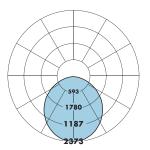
HPR LED-EP-A-2x4-DCO-V Very High Output - Flat Rail Efficacy: 117 lumens per watt Total Luminaire Output: 6444 Lumens 55.1 Watts

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Peak Candela Value: 2373 @ 0°

CCT: 3500K

ITL LM79 Report: 85146



| Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens) | | | |
|---|------|------|------|
| S* | B* | H* | V** |
| 3483 | 4379 | 5001 | 6444 |
| Power, 3500K, 80 CRI (Watts) | | | |
| S * | B* | H* | V** |
| 27.0 | 35.2 | 40.6 | 55.1 |
| Efficacy, 3500K, 80 CRI (Lumens Per Watt) | | | |
| S* | B* | H* | V** |
| 129 | 124 | 123 | 117 |

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

^{**} Based on ITL report: 85146

| Angled Narrow Rail (ANR) Total Light Output, 3500K, 80 CRI (Lumens) | | | |
|--|------|------|---------------|
| S* | B* | H* | V¥ |
| 3684 | 4586 | 5238 | 6749 |
| Power, 3500K, 80 CRI (Watts) | | | |
| S * | B* | H* | V_{λ} |
| 27.0 | 35.2 | 40.7 | 55.2 |
| Efficacy, 3500K, 80 CRI (Lumens Per Watt) | | | |
| S* | B* | H* | V¥ |
| 135 | 130 | 129 | 122 |

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

| CANDLEPOWER SUMMARY | | | | | | |
|---------------------|------|------|------|------|-------------|------|
| | 0.0 | 22.5 | 45 | 67.5 | ACROSS | Flux |
| 0 | 2373 | 2373 | 2373 | 2373 | 2373 | |
| 5 | 2362 | 2362 | 2361 | 2361 | 2361 | 224 |
| 10 | 2323 | 2325 | 2324 | 2324 | 2326 | |
| 15 | | | | 2263 | | 638 |
| 20 | 2177 | 2178 | 2178 | 2178 | 2178 | |
| 25 | | | 2073 | | 2073 | 955 |
| 30 | 1951 | 1950 | 1950 | 1952 | 1950 | |
| 35 | 1814 | 1814 | 1816 | 1815 | 1815 | 1135 |
| 40 | 1666 | 1667 | 1666 | 1666 | 1669 | |
| 45 | 1507 | 1506 | 1504 | 1504 | 1506 | 1160 |
| 50 | 1336 | 1335 | 1333 | 1332 | 1337 | |
| 55 | 1160 | 1158 | 1155 | 1150 | 1146 | 1031 |
| 60 | 975 | 972 | 968 | 962 | 958 | |
| 65 | 792 | 788 | 777 | 770 | <i>77</i> 1 | 770 |
| 70 | 600 | 596 | 585 | 577 | 575 | |
| 75 | 413 | 408 | 397 | 391 | 390 | 424 |
| 80 | 239 | 234 | 227 | 223 | 222 | |
| 85 | 92 | 90 | 87 | 85 | 84 | 105 |
| 90 | 0 | 0 | 0 | 0 | 0 | |

| Lumen Adjustment Factors - 80 CRI | | |
|-----------------------------------|-------|--|
| 3000K | 0.985 | |
| 3500K | 1.000 | |
| 4000K | 1.032 | |

| Lumen Adjustment 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 = 5001 lm x 0.789 = 3946 lm

$$Efficacy = \frac{3946 \ lm}{40.6 \ W} = 97 \ \text{Im/W}$$

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[¥] Based on ITL report: 85152

S - Standard Output, B - Boosted Standard Output,

H - High Output, V - Very High Output

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High Performance Recessed (HPR LED-EP) 2x4

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 luminaire assembly. Additional wire entrances are positioned on the ends of the housing to allow easy wiring access for the installer.

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

AIR RETURN: Refer to HPR LED-EP 2x4 Air Return Tech Sheet for more information.

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 narrows 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

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

Slotted Center Optic (SCO): Die-formed cold-rolled steel panel with a 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: Four lumen packages available, Standard (S), Boosted Standard (B), 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%. Expected driver lifetime: 170,000 hours.

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-3wire 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 2305 lumens. One quarter of the 2x4 will be illuminated in emergency mode.



INTEGRATED SENSORS: HPR LED-EP can be specified with integrated PIR (Passive Infrared) occupancy sensors or daylight

sensors. 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. Surface mount and air return versions available; refer to separate tech sheets.

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 ETL-listed conforming to UL 916, 1598, 8750, 924 in the U.S.A. and CAN/CSA C22.2 No. 205, 250, and 141 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-rated. Finelite products use electronic components that are RoHS compliant, and the mechani-cal 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: 33 lbs maximum.

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

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