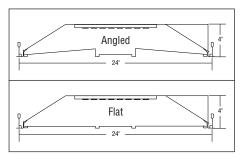




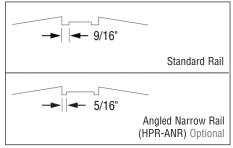
Refer to page 2 for all door styles

### **DESCRIPTION**

HPR LED is a highly efficient recessed luminaire delivering excellent visual comfort and outstanding performance. Advanced optical design makes HPR LED a powerful solution for lowceiling applications and eliminates the shadows common to other LED recessed 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.



**DIMENSIONS** 



#### NARROW RAIL OPTION

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

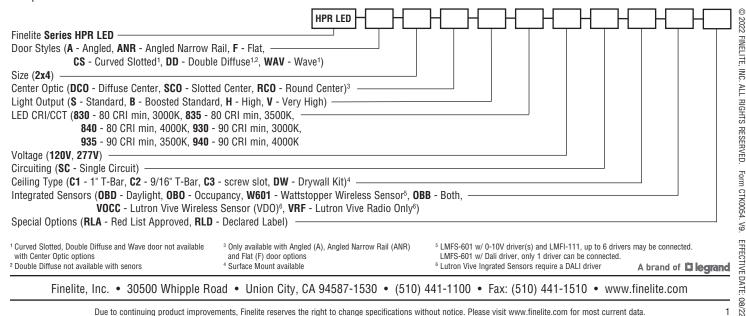


100% SERVICEABLE FROM BELOW

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

### **ORDERING GUIDE**

Sample Number: HPR LED - A - 2x4 - DCO - S - 835 - 277V - SC - C1 - OBO - RLA



- 1 Curved Slotted, Double Diffuse and Wave door not available with Center Optic options
- 3 Only available with Angled (A), Angled Narrow Rail (ANR) and Flat (F) door options

<sup>4</sup> Surface Mount available

5 LMFS-601 w/ 0-10V driver(s) and LMFI-111, up to 6 drivers may be connected LMFS-601 w/ Dali driver, only 1 driver can be connected.

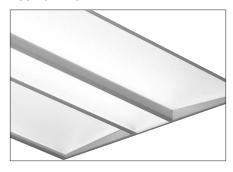
<sup>2</sup> Double Diffuse not available with senors

<sup>6</sup> Lutron Vive Ingrated Sensors require a DALI driver

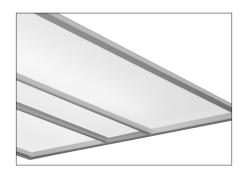
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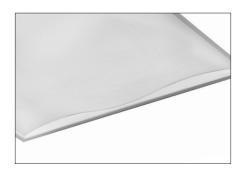
### **DOOR STYLES**



A - Angled ANR - Angled Narrow Rail



F - Flat

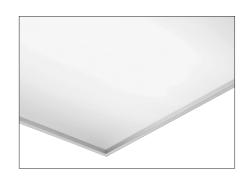


WAV - Wave

#### **DOOR STYLES**



**CS - Curved Slotted** 



**DD** - Double Diffuse

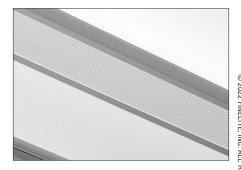
#### **CENTER OPTICS**



DCO - Diffuse Center



SCO - Slotted Center



**RCO - Round Center** 

DCO, SCO, and RCO are only available on Angled (A), Angled Narrow Rail (ANR), and Flat (F) doors.

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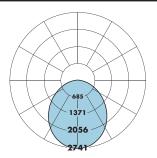
#### **PHOTOMETRY**

HPR LED-A-2x4-DCO-V Very High Output - Angled Rail Efficacy: 127 lumens per watt Total luminaire output: 6979 Lumens 55.1 Watts

Peak Candela Value: 2741 @  $0^{\circ}$ 

CCT: 3500K

ITL LM79 Report 85145



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	ACROSS	Flux
0	2741	2741	2741	2741	2741	
5	2730	2728	2728	2727	2727	259
102685	2684	2683	2682	2678		
152613	2607	2609	2605	2602	735	
202511				2498		
252380	2374	2371	2366	2367	1091	
302223		2213		2211		
352043		2033	2030	2033	1271	
401845	1838	1836	1834	1837		
451635	1628	1627	1626	1630	1256	
501417	1412	1412	1410	1413		
551200	1195	1196	1195		1069	
60986	984	984	978	974		
65780	778	774	766	761	766	
70582	583	576	569	565		
75401	400	393	388	389	420	
80239	236	232	229	229		
85103	100	97	91	89	111	
900	0	0	0	0		

Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens)				
<b>S</b> *	В*	H*	V**	
3772	4742	5416	6979	
Power, 3500K, 80 CRI (Watts)				
<b>S</b> *	B*	H*	V**	
27.0	35.2	40.6	55.1	
Efficacy, 3500K, 80 CRI (Lumens Per Watt)				
<b>S</b> *	B*	H*	V**	
140	135	135	127	

<sup>\*</sup> Family Correlation based on 3500K Very High Output (V) test - 120V.

<sup>\*\*</sup> Based on source ITL report: 85145

Angled Narrow Rail (ANR) Total Light Output, 3500K, 80 CRI (Lumens)				
\$*	В*	H*	N <sub>x</sub>	
3680	4626	5283	6808	
Power (Watts)				
\$*	B*	H*	Λ <sub>λ</sub>	
26.9	35.1	40.5	55.0	
Efficac	Efficacy, 3500K, 80 CRI (Lumens Per Watt)			
\$*	B*	H*	V¥	
137	132	130	124	

<sup>\*</sup> Family Correlation based on 3500K Very High Output (V) test - 120V.

Lumen Adjustment Factors - 80 CRI			
<b>3000K</b> 0.985			
3500K	1.000		
4000K	1.032		

Lumen Adjustment Factors - 90 CRI			
<b>3000K</b> 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* = 5416 lm x 0.789 = 4273 lm

Efficacy = 
$$\frac{4273 \text{ lm}}{40.6 \text{ W}}$$
 = 105 lm/W

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<sup>\*\*</sup> Based on source ITL report: 85151

S - Standard Output, B - Boosted Standard Output,

H - High Output, V - Very High Output

<sup>\*\*</sup> Correlation based on ITL report: 85145



Wave (WAV) Total Light Output, 3500K, 80 CRI (Lumens)				
S*	B*	H*	V <sup>†</sup>	
3821	4804	5486	7069	
Power, 3500K, 80 CRI (Watts)				
S*	B*	H*	V <sup>†</sup>	
27.0	35.2	40.6	55.1	
Efficacy, 3500K, 80 CRI (Lumens Per Watt)				
S*	B*	H*	V <sup>†</sup>	
142	136	135	128	

<sup>\*</sup> Family Correlation based on 3500K Very High Output (V) test - 120V.

<sup>†</sup> Based on source ITL report: 85837

Double Diffuse (DD) Total Light Output, 3500K, 80 CRI (Lumens)				
S*	B*	H*	V <sup>±</sup>	
3076	3867	4417	5691	
Power, 3500K, 80 CRI (Watts)				
S*	B*	H*	V <sup>±</sup>	
27.0	35.2	40.6	55.1	
Efficacy, 3500K, 80 CRI (Lumens Per Watt)				
<b>S</b> *	В*	Н*	V <sup>±</sup>	
114	110	109	103	

<sup>\*</sup> Family Correlation based on 3500K Very High Output (V) test - 120V.

Curve Slotted (CS) Total Light Output, 3500K, 80 CRI (Lumens)				
\$*	B*	H*	V <sup>‡</sup>	
3569	4486	5124	6602	
	Power, 3500K, 80 CRI (Watts)			
\$*	B*	H*	V‡	
27.0	35.2	40.6	55.1	
Efficac	Efficacy, 3500K, 80 CRI (Lumens Per Watt)			
\$*	В*	Н*	V‡	
132	127	126	120	

<sup>\*</sup> Family Correlation based on 3500K Very High Output (V) test - 120V.

<sup>†</sup> Based on source ITL report: 86020

Lumen Adjustment Factors - 80 CRI			
<b>3000K</b> 0.985			
3500K	1.000		
4000K	1.032		

Lumen Adjustment Factors - 90 CRI			
<b>3000K</b> 0.746			
3500K	0.760		
4000K	0.789		

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

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 $<sup>\</sup>pm$  Based on source ITL report: 85156

S - Standard Output, B - Boosted Standard Output,

H - High Output, V - Very High Output



## 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 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. Optional wave door includes frosted acrylic panel that undulates from side to side.

**DOUBLE DIFFUSE:** Visible diffuser: UV-stabilized and impact-resistant frosted virgin acrylic, 0.120" thick. Inner diffuser: 0.120" thick with 60% round perforations white/white.

**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 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: 100.000 hours.

**LUTRON DRIVER OPTIONS: LUTES1** (Hi-lume 1% EcoSystem with Soft-On, Fade to Black dimming (LDE1 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 2305 lumens. One quarter of the 2x4 will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) Occupancy (OBO) or Daylight Sensors (OBD) available with

Flush and Bottom Glow downlight diffusers. PIR sensors not recommended for stairwell applications. Refer to Occupancy Sensor & Daylight Sensor tech sheet and the Embedded Intelligence landing page for more information and additional sensor options.

**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 mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2011/65/EU. Simply add - RLF (Red List Free) or - RLD (Declared) to your part number.

WEIGHT: 33 lbs maximum.

**DLC QUALIFIED:** Contact factory

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

\* LutVDO & LutVRF can be provided with 1% DALI Sensor Ready Driver (Osram Dexal), 5% DALI Sensor Ready Driver (Philips SR DALI) or any Lutron EcoSystem 1% or 5% LED driver. Customer to specify driver required.

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