FINELITE

High Performance Recessed (HPR LED) 2x2, Standard Output (S), Boosted Standard Output (B)









Date

Project

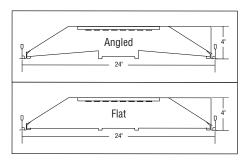
Type

Comments

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 low-ceiling applications and eliminates the shadows common to other LED recessed products.



- 9/16" Standard Rail 5/16" Angled Narrow Rail (HPR-ANR) Optional



DIMENSIONS

ANGLED 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 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

3 Surface Mount available

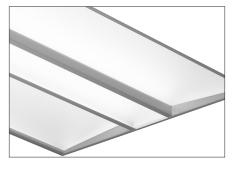
Sample Number: HPR LED - A - 2x2 - DCO - S - 835 - 277V - SC - C1 - OBO

н	HPR LED	$H \cap$	\Box	\lnot	\top	\mathbb{H}^{-}	${\mathbb T}$	$\neg \vdash \Box$
Finelite Series HPR LED —			T		\Box		-	
Door Styles (A - Angled, ANR - Angled Narrow Rail, F - Flat,								
CS - Curved Slotted ¹ , DD - Double Diffuse ¹ , WAV - Wave ¹)								
Size (2x2) —								
Center Optic (DCO - Diffuse Center, SCO - Slotted Center, RCO - Round Ce	enter)2 ———							
Light Output (S - Standard, B - Boosted Standard)								
LED CRI/CCT (830 - 80 CRI min, 3000K, 835 - 80 CRI min, 3500K, ———					J			
840 - 80 CRI min, 4000K, 930 - 90 CRI min, 3000K,								
935 - 90 CRI min, 3500K, 940 - 90 CRI min, 4000K								
Voltage (120V, 277V) —								
Circuiting (SC - Single Circuit)								
Ceiling Type (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, DW - Drywal	all Kit) ³ ———							
Integrated Sensors (OBD - Daylight, OBO - Occupancy, OBB - Both)								

- ¹ Curved Slotted, Double Diffuse and Wave door not available with Center Optic options
- ² Only available with Angled (A), Angled Narrow Rail (ANR) and Flat (F) door options
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DOOR STYLES



A - Angled ANR - Angled Narrow Rail

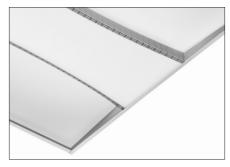


F - Flat

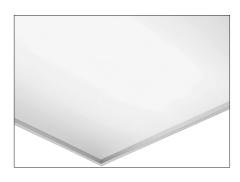


WAV - Wave

DOOR STYLES



CS - Curved Slotted

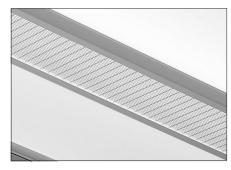


DD - Double Diffuse

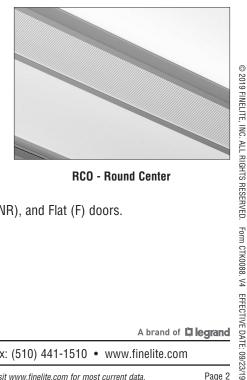
CENTER OPTICS



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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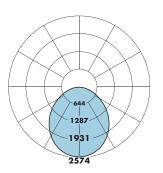
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PHOTOMETRY

HPR LED-A-2x2-DCO-V Standard Output - Angled Rail Efficacy: 119 lumens per watt Total luminaire output: 3397 Lumens 28.5 Watts

Peak Cadela Value: 2574 @ 0° CCT: 3500K ITL LM79 Report 85142



Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	B**		
3397	4367		
Power, 3500K, 80 CRI (Watts)			
S*	B**		
28.5	37.1		
Efficacy, 3500K, 80 C	Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
S*	B**		
119	118		

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

^{**} Based on source ITL report: 85142

Angled Narrow Rail (ANR) Total Light Output, 3500K, 80 CRI (Lumens)			
S *	Β ^γ		
3276	4212		
Power, 3500K, 80 CRI (Watts)			
\$*	B [¥]		
28.6	37.2		
Efficacy, 3500K, 80 C	Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
\$*	Β ^γ		
115	113		

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

S - Standard Output, B - Boosted Standard Output

		C A	VIDLE	O\\/EI	R SUM	A A DV	
-							
	_					ACROSS	Flux
	0					2574	
Ι.	5				2559		243
	10					2514	
1	15	2440	2439	2441	2442	2444	688
2	20	2332	2333	2337	2344	2347	
2	25	2199	2199	2207	2217	2224	1016
3	30	2038	2040	2052	2070	2076	
3	35	1861	1863	1877	1900	1907	1175
4	40	1668	1671	1690	1713	1721	
1	45	1475	1473	1494	1517	1529	1154
5	50	1272	1272	1293	1314	1323	
1.5	55	1075	1074	1093	1109	1116	978
16	50	880	880	894	909	910	
16	55	693	696	702	712	718	699
17	70	519	519	524	532	537	
17	75	356	354	357	362	367	382
1 8	30	211	209	210	213	216	
18	35	90	87	85	83	85	101
19	90	0	0	0	0	0	
1							

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

Standard Output (S) Angled (A) & Flat (F) 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output = $3397 \text{ Im } \times 0.789 = 2680 \text{ Im}$

$$Efficacy = \frac{2680 \ lm}{28.4 \ W} = 94 \ Im/W$$

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[¥] Based on source ITL report: 85148

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Wave (WAV) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	B⁺		
3470	4461		
Power, 3500K, 80 CRI (Watts)			
S*	B [†]		
28.5	37.2		
Efficacy, 3500K, 80 C	Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
S*	B [†]		
128	120		

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

[†] Based on source ITL report: 85836

Double Diffuse (DD) Total Light Output, 3500K, 80 CRI (Lumens)			
S *	B±		
2720	3497		
Power, 3500K, 80 CRI (Watts)			
\$*	B±		
28.5	37.2		
Efficacy, 3500K, 80 C	Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
S *	B±		
95	94		

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

Curve Slotted (CS) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	B‡		
3236	4161		
Power, 3500K, 80 CRI (Watts)			
S*	B‡		
28.5	37.2		
Efficacy, 3500K, 80 C	Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
S*	B‡		
113.5	112.0		

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

[‡] Based on source ITL report: 86019

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

[†] Based on source ITL report: 85154

S - Standard Output, B - Boosted Standard Output

High Performance Recessed (HPR LED) 2x2, Standard Output (S), Boosted Standard Output (B)

- 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 2x2 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 center optical element is held in place by sleek steel rails. 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 (**\$C0**): 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: Two lumen packages available, Standard (**S**), Boosted Standard (**B**). 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)); **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.

LUTRON WIRELESS MODULE OPTIONS: LUTVDO*
(Vive Integral Fixture Module with Occ/Daylight Sensors (DFCSJ-OEM-OCC)); LUTVRF* (Vive Integral Fixture Module, RF only, no sensors (DFCSJ-OEM-RF)); LUTFCJSO (Vive External POWPAK Module, RF Only, 0-10V driver)); LUTFCJSE (Vive External POWPAK Module, RF Only, all EcoSystem drivers).

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 quarter 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. 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.

WEIGHT: 16 lbs maximum.

DLC QUALIFIED: Configurations of this product are listed on the DLC Qualified Products List (QPL). www.designlights.org/search

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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