IC - RATED LED BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance Recessed (HPR LED) 2x4

INDUSTRY BEST 10 YEAR LED WARRANTY

DLC PREMIUM LISTED Refer to spec page for details

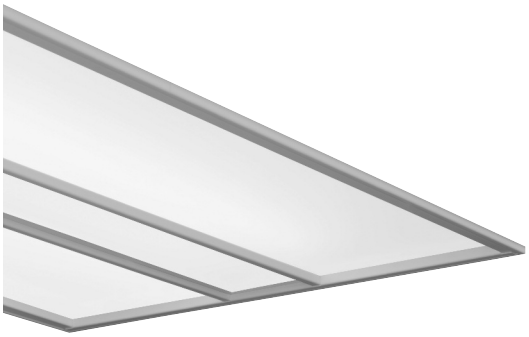
LED lighting facts® A Program of the U.S. DOE

Date

Project

Type

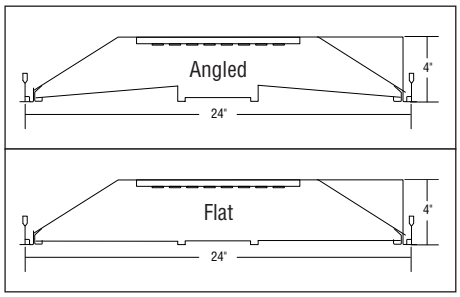
Comments



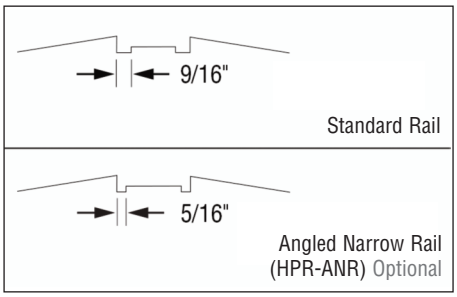
Refer to page 2 for all door styles

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.



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

HPR LED

Finelite **Series HPR LED**
Door Styles (**A** - Angled, **ANR** - Angled Narrow Rail, **F** - Flat,
CS - Curved Slotted[1], **DD** - Double Diffuse[1], **WAV** - Wave[1])
Size (**2x4**)
Center Optic (**DCO** - Diffuse Center, **SCO** - Slotted Center, **RCO** - Round Center)[2]
Light Output (**S** - Standard, **B** - Boosted Standard, **H** - High, **V** - Very High)
LED CRI/CCT (**830** - 80 CRI min, 3000K, **835** - 80 CRI min, 3500K,
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** - Drywall 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
[3] Surface Mount available

A brand of legrand

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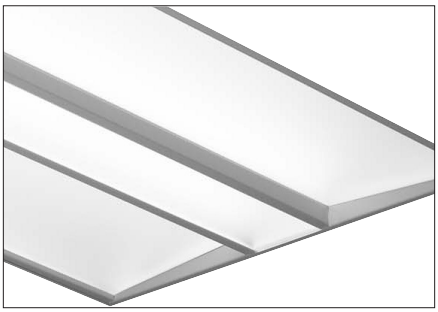
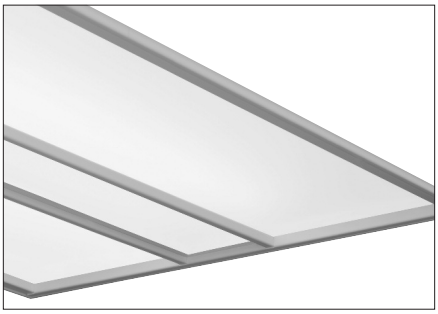
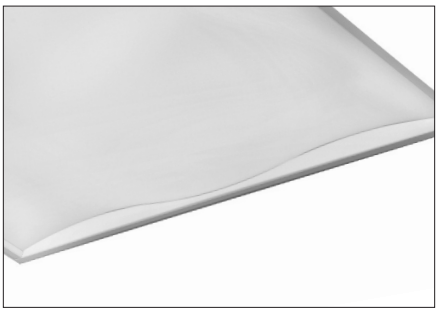
DOOR STYLES



A - Angled
ANR - Angled Narrow Rail

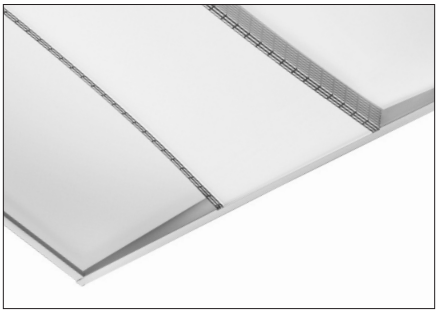


F - Flat

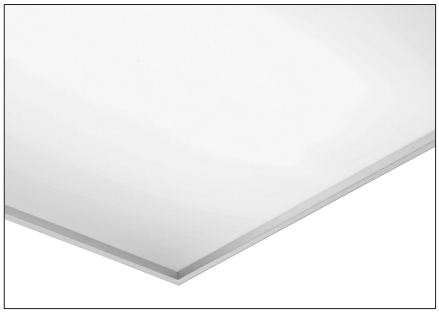


WAV - Wave

DOOR STYLES

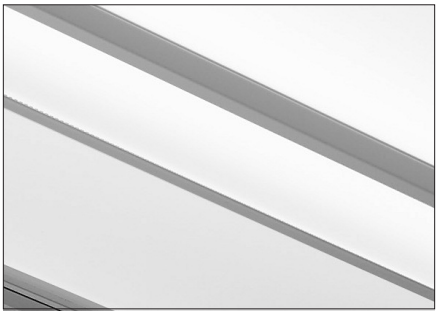


CS - Curved Slotted

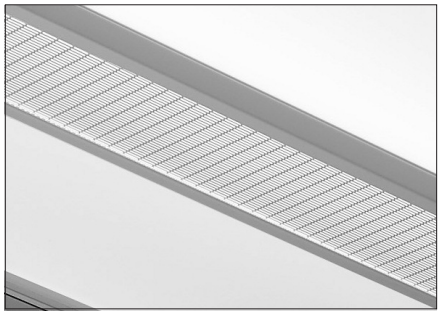


DD - Double Diffuse

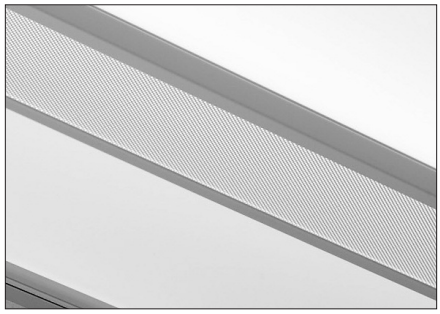
CENTER OPTICS



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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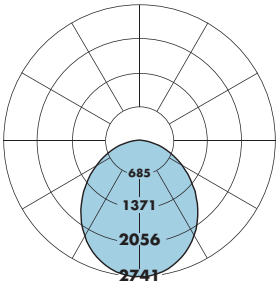
PHOTOMETRY

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˚
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
10	2685	2684	2683	2682	2678	
15	2613	2607	2609	2605	2602	735
20	2511	2506	2502	2498	2498	
25	2380	2374	2371	2366	2367	1091
30	2223	2216	2213	2209	2211	
35	2043	2036	2033	2030	2033	1271
40	1845	1838	1836	1834	1837	
45	1635	1628	1627	1626	1630	1256
50	1417	1412	1412	1410	1413	
55	1200	1195	1196	1195	1187	1069
60	986	984	984	978	974	
65	780	778	774	766	761	766
70	582	583	576	569	565	
75	401	400	393	388	389	420
80	239	236	232	229	229	
85	103	100	97	91	89	111
90	0	0	0	0	0	

Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	**B***	**H***	**V****
3772	4742	5416	6979
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****
140	135	135	127

* Family Correlation based on 3500K Very High Output (**V**) test - 120V.
** Based on source ITL report: 85145

Angled Narrow Rail (ANR) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	**B***	**H***	**V¥**
3680	4626	5283	6808
Power (Watts)			
S*	**B***	**H***	**V¥**
26.9	35.1	40.5	55.0
Efficacy, 3500K, 80 CRI (Lumens Per Watt)			
S*	**B***	**H***	**V¥**
137	132	130	124

* Family Correlation based on 3500K Very High Output (**V**) test - 120V.
** Based on source ITL report: 85151

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

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 =
5416 lm x 0.789 = 4273 lm

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

** Correlation based on ITL report: 85145

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Wave (WAV) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	**B***	**H***	**V†**
3821	4804	5486	7069
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†**
142	136	135	128

* Family Correlation based on 3500K Very High Output (**V**) test - 120V.
† Based on source ITL report: 85837

Curve Slotted (CS) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	**B***	**H***	**V‡**
3569	4486	5124	6602
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‡**
132	127	126	120

* Family Correlation based on 3500K Very High Output (**V**) test - 120V.
† Based on source ITL report: 86020

Double Diffuse (DD) Total Light Output, 3500K, 80 CRI (Lumens)			
S*	**B***	**H***	**V±**
3076	3867	4417	5691
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±**
114	110	109	103

* Family Correlation based on 3500K Very High Output (**V**) test - 120V.
± Based on source ITL report: 85156

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

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.

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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 impact-resistant 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)); **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)); **LUTFCJS0** (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 2305 lumens. One quarter of the 2x4 will be illuminated in emergency mode.

Daylight Sensor Occupancy Sensor **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: 33 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.

* 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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