IC - RATED LED BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

Tunable White High Performance Recessed (HPR LED) 2x2 Boosted Standard Output (B)

Date

Project

Type

Comments

Refer to page 3 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.
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.

ORDERING GUIDE

Sample Number: HPR LED - A - 2x2 - DCO - B - 8TW - 277V - SC - C1 - RLA

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 / Pre-qualified Controls by Others (**2x2**)
Center Optic (**DCO** - Diffuse Center, **SCO** - Slotted Center, **RCO** - Round Center)[2]
Light Output (**B** - Boosted Standard)
LED CRI/CCT (**8TW** - 80 CRI min, Tunable White;
9TW - 90 CRI min, Tunable White.
See below for Tunable White controls options)
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]
Special Options (**RLA** - Red List Approved, **RLD** - Declared Label)

[1] Curved Slotted, Double Diffuse and Wave door not available with Center Optic options
[2] Only available on Angled (A), Angled Narrow Rail (ANR), and Flat (F)
[3] Surface Mount available

TUNABLE WHITE CONTROLS OPTIONS: SELECT ONE

FineTune TUNABLE WHITE SYSTEM

☐ FineTune controller with FineTune DMX Driver

OR

☐ Controls by others with pre-qualified DMX driver
☐ Controls by others with pre-qualified DALI driver
☐ Controls by others with pre-qualified PoE setup
☐ Controls by Lutron with pre-qualified Lutron driver

A brand of legrand

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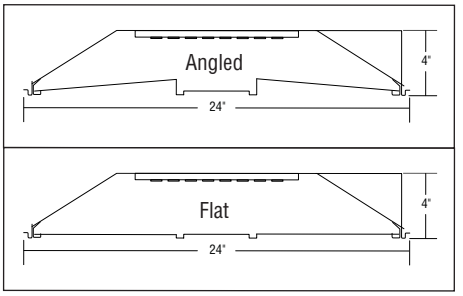
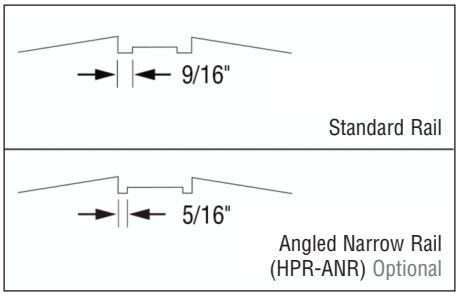
LUMINAIRE FEATURES



DIMENSIONS



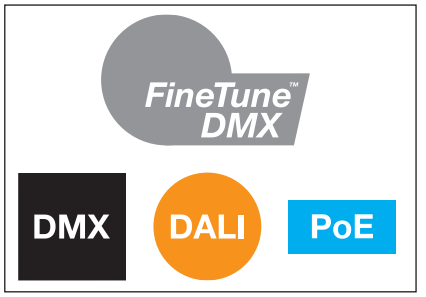
ANGLED NARROW RAIL OPTION

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

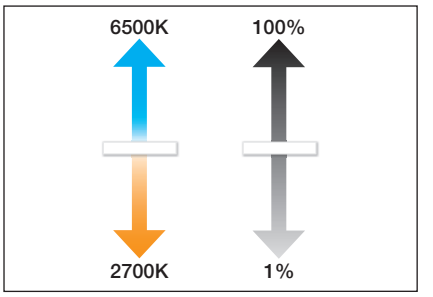
The replaceable light engine and driver are easy to access from below the ceiling.

TUNABLE WHITE FEATURES



MULTIPLE CONTROL ARCHITECTURES

Finelite's FineTune™ DMX, qualified DMX, DALI (open and proprietary), or PoE (Power over Ethernet).



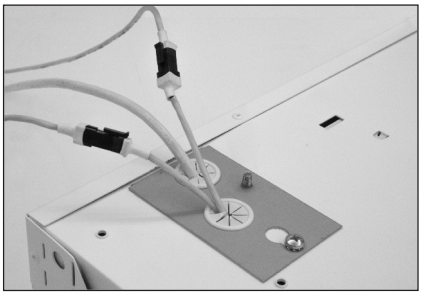
TUNABLE WHITE

Any CCT between 2700K and 6500K with excellent CRI and R9 values; dimming from 100% to 1%.

FINETUNE SYSTEM

Award-winning control system, which includes intuitive wall mounted controller, power control center, driver, and mobile app to easily tailor lighting to match user preference.

DMX CONNECTION



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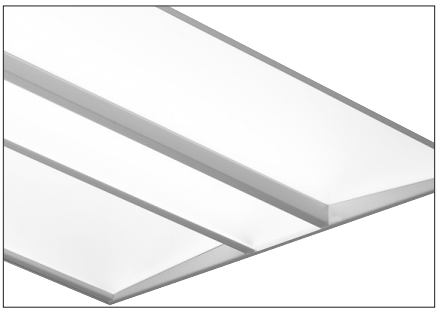
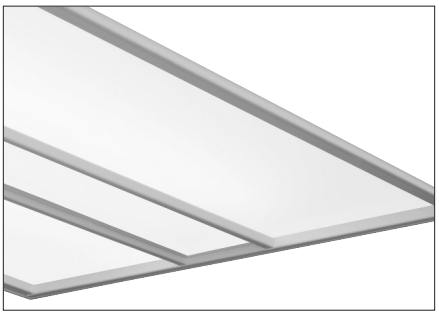
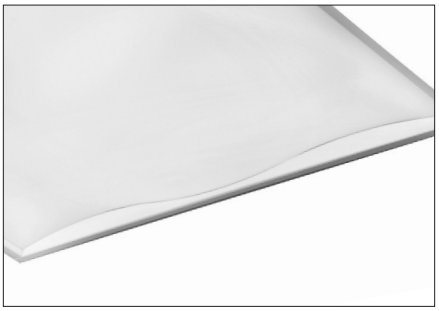
DOOR STYLES



A - Angled
ANR - Angled Narrow Rail

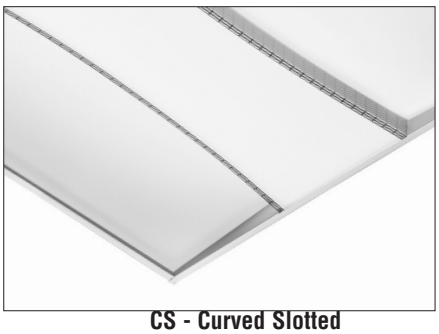


F - Flat

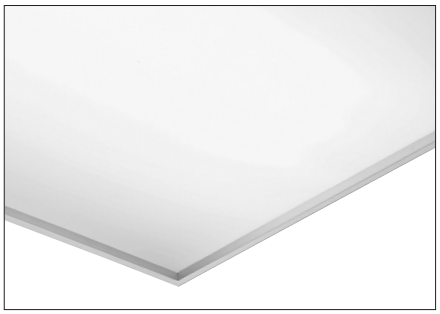


WAV - Wave

DOOR STYLES



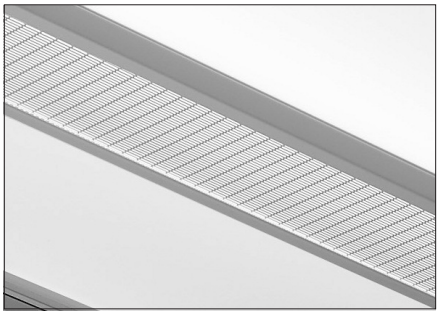
CS - Curved Slotted



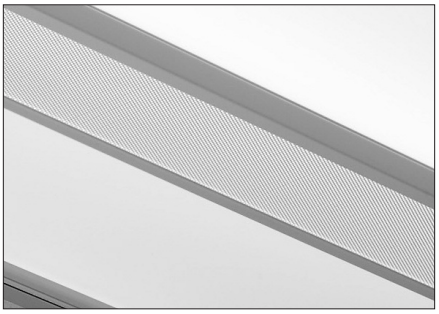
DD - Double Diffuse

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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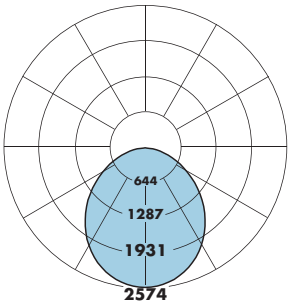
PHOTOMETRY

HPR LED-A-2x2-DCO-V
Boosted Standard Output - Angled Rail
Total luminaire output: 6436 Lumens
Peak Cadela Value: 2574 @ 0˚
CCT: 3500K
ITL LM79 Report 85142



CANDELA DISTIRIBUTION						
	0.0	22.5	45	67.5	ACROSS	Flux
0	2574	2574	2574	2574	2574	
5	2561	2561	2560	2559	2560	243
10	2519	2517	2515	2514	2514	
15	2440	2439	2441	2442	2444	688
20	2332	2333	2337	2344	2347	
25	2199	2199	2207	2217	2224	1016
30	2038	2040	2052	2070	2076	
35	1861	1863	1877	1900	1907	1175
40	1668	1671	1690	1713	1721	
45	1475	1473	1494	1517	1529	1154
50	1272	1272	1293	1314	1323	
55	1075	1074	1093	1109	1116	978
60	880	880	894	909	910	
65	693	696	702	712	718	699
70	519	519	524	532	537	
75	356	354	357	362	367	382
80	211	209	210	213	216	
85	90	87	85	83	85	101
90	0	0	0	0	0	

Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens)
B*
4367
Power, 3500K, 80 CRI (Watts)
B*
40.8
Efficacy, 3500K, 80 CRI (Lumens Per Watt)
B*
107

B - Boosted Standard Output
* Based on source ITL report: 85142 3500K, 80 CRI Very High Output (**V**) test - 120V.

Angled Narrow Rail (ANR) Total Light Output, 3500K, 80 CRI (Lumens)
B**
4212
Power, 3500K, 80 CRI (Watts)
B**
40.9
Efficacy, 3500K, 80 CRI (Lumens Per Watt)
B**
103

B - Boosted Standard Output
** Based on source ITL report: 85148 3500K, 80 CRI Very High Output (**V**) test - 120V.

Lumen Adjustment Factors - 80 CRI	
2700K	0.968
3000K	0.985
3500K	1.000
4000K	1.032
6500K	1.032

Lumen Adjustment Factors - 90 CRI	
2700K	0.731
3000K	0.746
3500K	0.760
4000K	0.789
6500K	0.789

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

SAMPLE LUMEN ADJUSTMENT CALCULATION

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

Lumen Adjustment Factor = 0.789

Total Light Output =
4367 lm x 0.789 = 3446 lm

$$\textit{Efficacy} = \frac{3445.6\ lm}{40.8\ W} = 84\ \text{lm/W}$$

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Wave (WAV) Total Light Output, 3500K, 80 CRI (Lumens)
B¥
4461
Power, 3500K, 80 CRI (Watts)
B¥
40.9
Efficacy, 3500K, 80 CRI (Lumens Per Watt)
B¥
109

B - Boosted Standard Output

¥ Based on source ITL report: 85836 3500K, 80 CRI Very High Output (**V**) test - 120V.

Curve Slotted (CS) Total Light Output, 3500K, 80 CRI (Lumens)
B‡
4161
Power, 3500K, 80 CRI (Watts)
B‡
40.9
Efficacy, 3500K, 80 CRI (Lumens Per Watt)
B‡
102

B - Boosted Standard Output

‡ Based on source ITL report: 86019 3500K 80 CRI Very High Output (**V**) test - 120V.

Double Diffuse (DD) Total Light Output, 3500K, 80 CRI (Lumens)
B±
3497
Power, 3500K, 80 CRI (Watts)
B±
40.9
Efficacy, 3500K, 80 CRI (Lumens Per Watt)
B±
85

B - Boosted Standard Output

± Based on source ITL report: 85154 3500K, 80 CRI Very High Output (**V**) test - 120V.

Lumen Adjustment Factors - 80 CRI	
2700K	0.968
3000K	0.985
3500K	1.000
4000K	1.032
6500K	1.032

Lumen Adjustment Factors - 90 CRI	
2700K	0.731
3000K	0.746
3500K	0.760
4000K	0.789
6500K	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 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. 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 narrow 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, 1/8" thick. Inner diffuser: 1/8" 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. Standard with Wave.*

*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: Available in 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.

TUNABLE WHITE DRIVER: Replaceable LED driver accessible from below the ceiling. 120/277V. Power factor ≥0.90. Total Harmonic Distortion (THD): <20%. Dimming Range: 100% - 1%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: LutDTW (1% T-Series 2-Channel Digital Tunable White (PSQ Series)).

ELECTRICAL:

Emergency Option DMX: Battery backup only.

Emergency Option DALI: Battery backup, emergency-to-generator/ inverter wiring.

Emergency Option Lutron: Battery backup, emergency-to-generator/ inverter wiring.

Emergency Option PoE: Contact factory.

Battery Backup: Factory-choice low-profile backup battery available. Backup batteries deliver 2199 lumens. One quarter of the 2x2 will be illuminated in emergency mode. Backup battery will operate at 6500K in emergency.

Chicago Plenum: Available on request.

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 and Surface Mount versions available; refer to separate tech sheets.

DMX INTERCONNECTION CABLES: Luminaires are prewired with plug-and-play interconnection cables to support easy plug-together joining of luminaire runs. If a non-FineTune DMX system has been specified, a DMX to RJ45 converter is provided.

FINISHES: Housing and door assembly painted with 96LG high reflectance matte white powder coat paint. Optional adder: Anti-microbial paint. Contact factory. DMX feeds cannot be cut or spliced. DMX feeds should be ordered based on fixed lengths.

FEED: Standard with one 18-gauge single-circuit feed. 14-gauge feed available on request. DMX and power feed at same location (standard). Optional whips (with flex connectors) supplied in a maximum of 11' lengths. Lead Wires. DMX feeds cannot be cut or spliced. DMX feeds should be ordered based on fixed lengths.

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. 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.

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

TUNABLE WHITE PRE-QUALIFIED DRIVERS BY OTHERS

DMX	DALI	POE set up	LUTRON
EldoLED	EldoLED, Crestron	Contact Factory	LUTRON

NOTE: For a complete list of system option/limitations please click here.