FINELITE

Tunable White High Performance Recessed (HPR LED-EP) 2x4, Air Return

Date	
Project	
Type	
Comments	

Refer to page 3 for all door styles

DESCRIPTION

HPR LED-EP Air Return is a highly effective luminaire delivering excellent visual comfort and outstanding performance. This enhanced performance luminaire features a very uniform diffuser aesthetic. Advanced optical designs make the HPR LED-EP Air Return a powerful solution for low-ceiling applications and eliminate the shadows common to other LED products. HPR LED-EP Air Return effectively removes air from the space with little change to the luminaire aesthetic. 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.
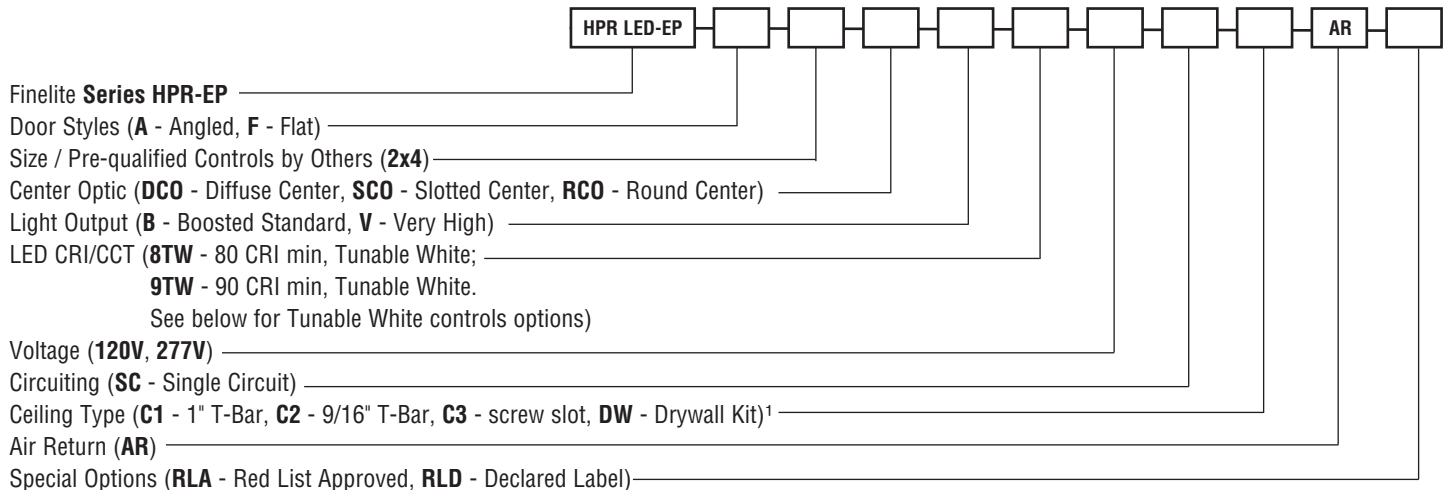
ORDERING GUIDE

Sample Number: HPR-EP - A - 2x4 - DCO - B - 8TW - 277V - SC - C1 - AR - RLA

| HPR LED-EP | | | | | | | | | AR | |

Finelite **Series HPR-EP**
Door Styles (**A** - Angled, **F** - Flat)
Size / Pre-qualified Controls by Others (**2x4**)
Center Optic (**DCO** - Diffuse Center, **SCO** - Slotted Center, **RCO** - Round Center)
Light Output (**B** - Boosted Standard, **V** - Very High)
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)[1]
Air Return (**AR**)
Special Options (**RLA** - Red List Approved, **RLD** - Declared Label)

[1] 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

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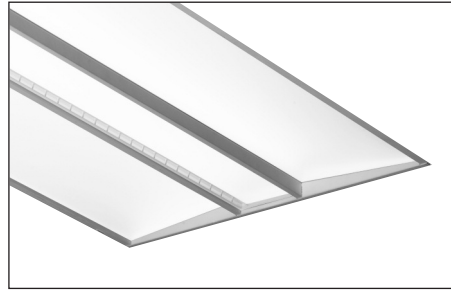
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LUMINAIRE FEATURES

DIMENSIONS

Angled
4"
24"

Flat
4"
24"
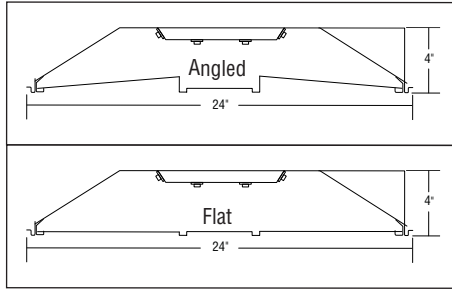
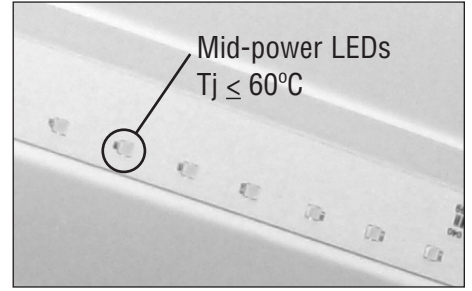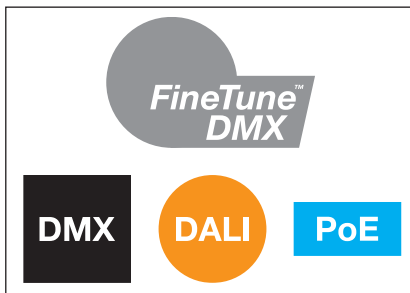**TWICE THE UNIFORMITY**
HPR-EP uses new LED arrays and materials to deliver a diffuser that is twice as uniform when compared to standard luminaires.

Mid-power LEDs
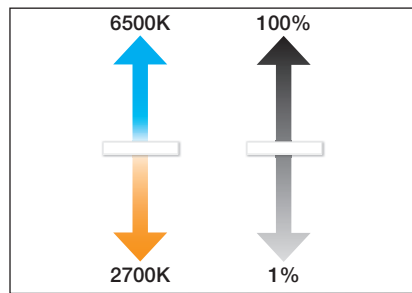$T_j \leq 60°C$

THERMAL MANAGEMENT
Mid-power LEDs allow heat to be fully dissipated without the need for additional heat sinks.

TUNABLE WHITE FEATURES

FineTune™ DMX

DMX   DALI   PoE

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

6500K   100%

2700K   1%

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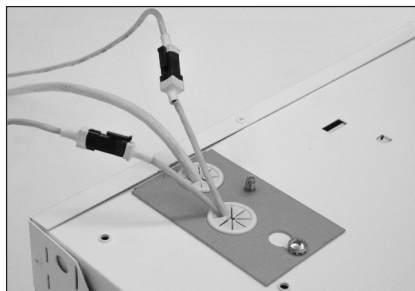

Next Generation
LUMINAIRES
2015
Outstanding Interface

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.
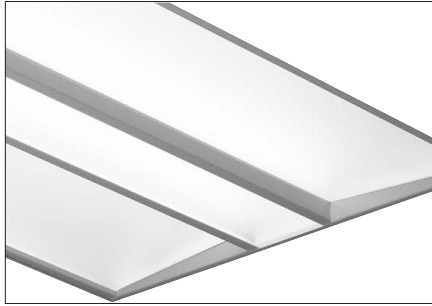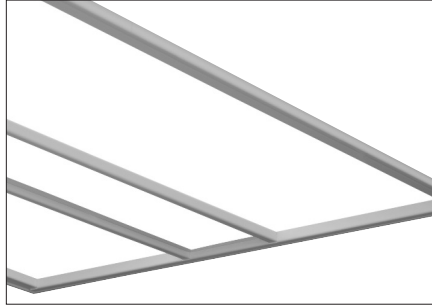
DMX CONNECTION

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DOOR STYLES

A - Angled

F - Flat

CENTER OPTICS

DCO - Diffuse Center
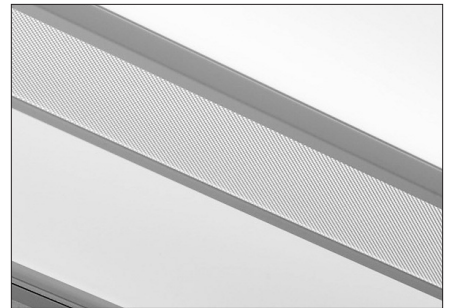
SCO - Slotted Center

RCO - Round Center

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PHOTOMETRY

HPR LED-EP-A-2x4-DCO-V
Very High Output - Flat Rail
Total Luminaire Output: 6444 Lumens
Peak Candela Value: 2373 @ 0˚
CCT: 3500K
ITL LM79 Report: 85146
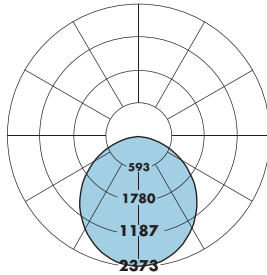
CANDELA DISTIRIBUTION						
	0.0	22.5	45	67.5	ACROSS	Flux
0	2373	2373	2373	2373	2373	
5	2362	2362	2361	2361	2361	224
10	2323	2325	2324	2324	2326	
15	2261	2261	2263	2263	2262	638
20	2177	2178	2178	2178	2178	
25	2073	2073	2073	2074	2073	955
30	1951	1950	1950	1952	1950	
35	1814	1814	1816	1815	1815	1135
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	771	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	

Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens)	
B*	**V****
4379	6444
Power, 3500K, 80 CRI (Watts)	
B*	**V****
38.7	60.6
Efficacy, 3500K, 80 CRI (Lumens Per Watt)	
B*	**V****
113	106

B - Boosted Standard Output, V - Very High Output

* Family Correlation based on 3500K 80 CRI Very High Output (**V**) test - 120V.

** Based on ITL report: 85146

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 =
4379 lm x 0.789 = 3455 lm

$$Efficacy = \frac{3455 \; lm}{38.7 \; W} = 89 \; lm/W$$

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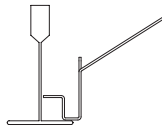
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CEILING SYSTEM INFORMATION
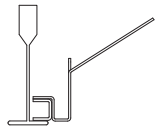
9/16" T-Bar

15/16" T-Bar
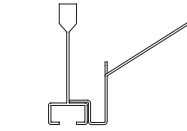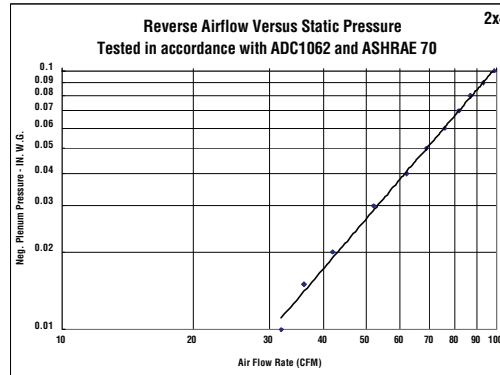
Screw Slot T-Bar

AIR HANDLING INFORMATION

Reverse Airflow Versus Static Pressure
Tested in accordance with ADC1062 and ASHRAE 70

2x4

Neg. Plenum Pressure - IN. W.G.

Air Flow Rate (CFM)

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: Luminaire tested in accordance with ADC1062 and ASHRAE 70. Air Return slots positioned on the center optic. Diffuse Center (**DCO**) is placed above the air return slots. Other center optics are positioned below the air return slots.

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, 1/8" thick. They are either angled toward the central optic or parallel to the ceiling plane.

CENTER OPTIC OPTIONS: *Only available with Angled (A) 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: Two lumen packages available, Boosted Standard (**B**) 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.

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 2305 lumens. One quarter of the 2x4 will be illuminated in emergency mode. Backup battery will operate at 6500K in emergency.

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.

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. 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: 33 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.

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