FINELITE

Tunable White High Performance Recessed (HPR LED) 1x2 Surface Mount
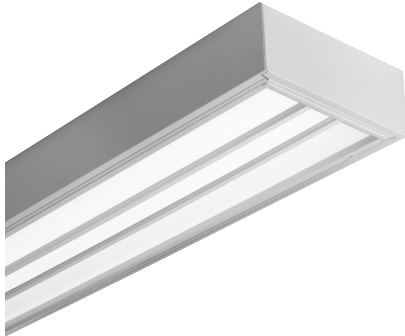
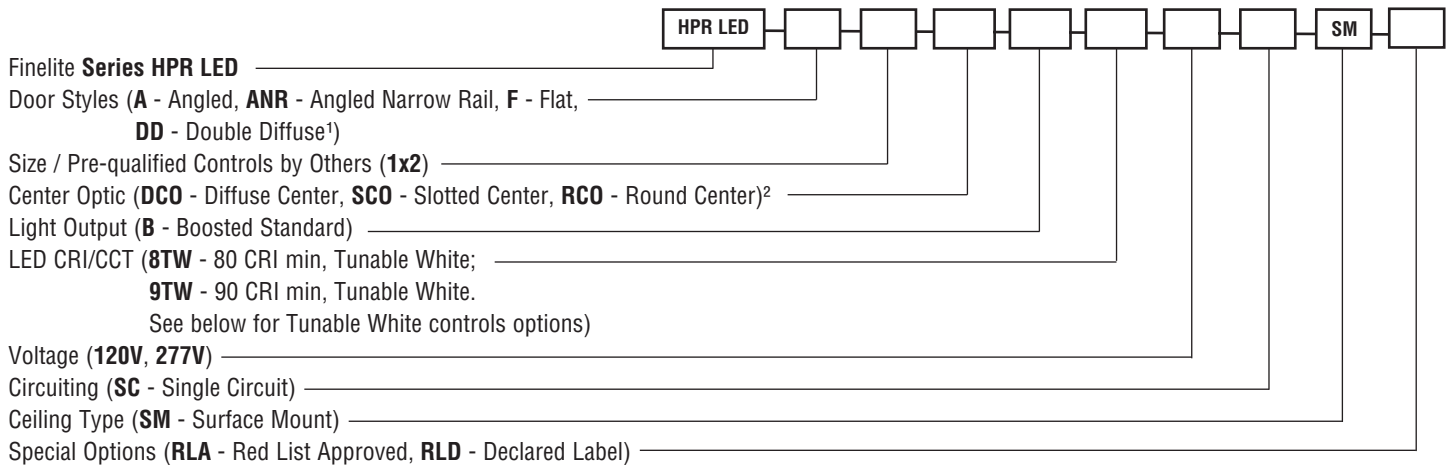|	
Date	
Project	
Type	
Comments	

Refer to page 3 for all door styles

DESCRIPTION

HPR LED Surface Mount is a highly efficient luminaire delivering excellent visual comfort and outstanding performance.

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 - 1x2 - DCO - B - 8TW - 277V - SC - SM - RLA

HPR LED ☐ ☐ ☐ ☐ ☐ ☐ ☐ **SM** ☐

Finelite **Series HPR LED**
Door Styles (**A** - Angled, **ANR** - Angled Narrow Rail, **F** - Flat,
     DD - Double Diffuse[1])
Size / Pre-qualified Controls by Others (**1x2**)
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 (**SM** - Surface Mount)
Special Options (**RLA** - Red List Approved, **RLD** - Declared Label)

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

TUNABLE WHITE CONTROLS OPTIONS: SELECT ONE

Fine**TUNE**™
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
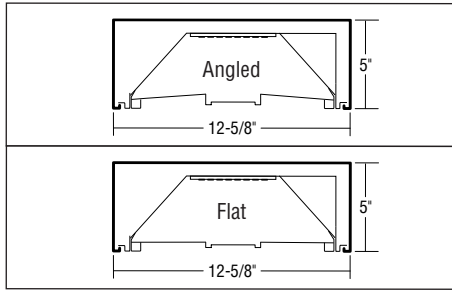
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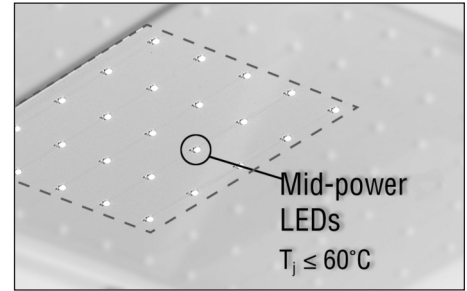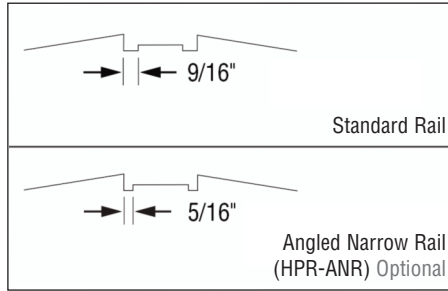
1

FINELITE

LUMINAIRE FEATURES

Angled

5"

12-5/8"

Flat

5"

12-5/8"

Shown with Surface Mount kit

DIMENSIONS

9/16"

Standard Rail

5/16"

Angled Narrow Rail (HPR-ANR) Optional

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.
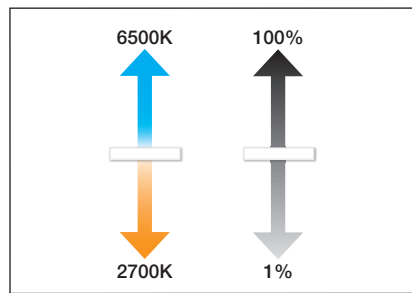
Mid-power LEDs
$T_j \leq 60°C$

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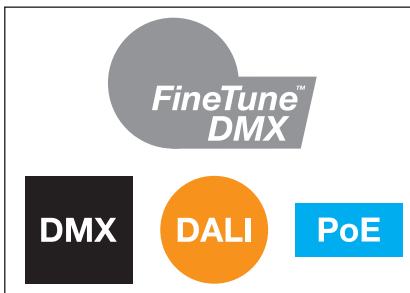
MULTIPLE CONTROL ARCHITECTURES
Finelite's FineTune™ DMX, qualified DMX, DALI (open and proprietary), or PoE (Power over Ethernet).

6500K | 100%

2700K | 1%

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

Fine TUNE
TUNABLE WHITE SYSTEM

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
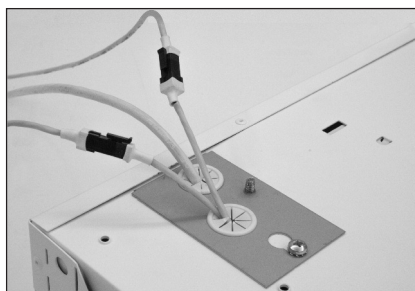
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DOOR STYLES
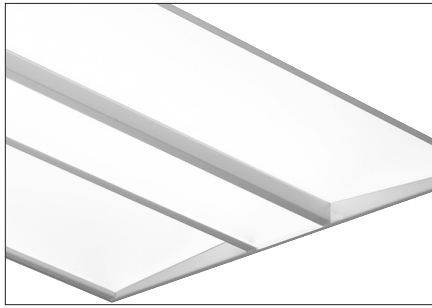
A - Angled
ANR - Angled Narrow Rail
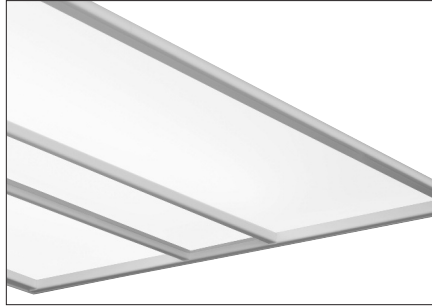
F - Flat

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.
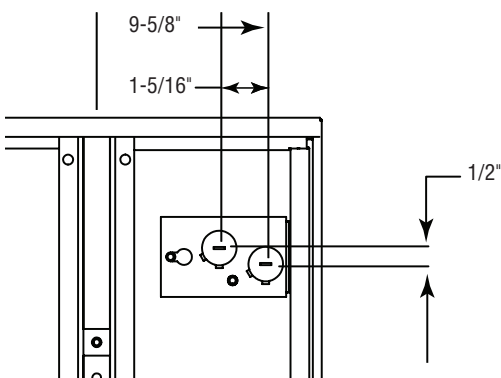

WIRING ACCESS DETAIL

9-5/8"

1-5/16"

1/2"

MOUNTING INFORMATION: 1x2

24-5/8"

3"

16"

1-5/8"

4-1/4"

10-3/4"

2-3/8"

4"

4"

12-5/8"

J-Box
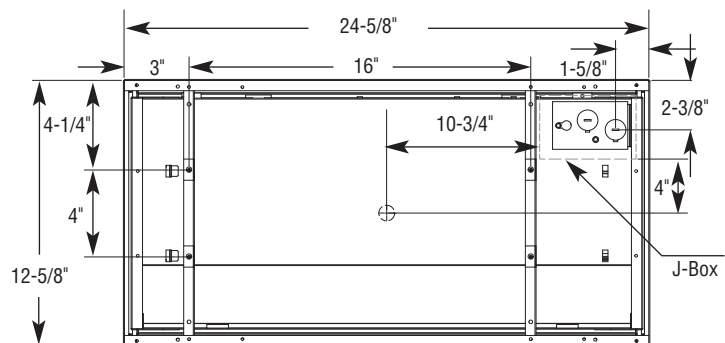
Consult www.finelite.com for 3000K, 3500K, and 4000K photometric reports.

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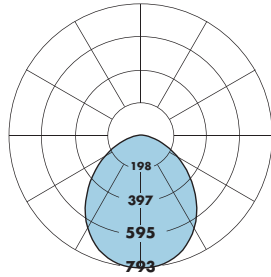## PHOTOMETRY

HPR LED-F-1x2-DCO-B
Boosted Standard Output - Flat
Total luminaire output: 1943 Lumens
Peak Candela Value: 793 @ 0°
CCT: 3500K
ITL LM79 Report 85140

CANDELA DISTIRIBUTION						
	0.0	22.5	45.0	67.5	ACROSS	Flux
0	793	793	793	793	793	
5	789	789	789	789	790	75
10	776	777	777	778	780	
15	755	755	757	758	760	213
20	723	725	726	729	730	
25	684	685	687	688	688	316
30	636	637	638	638	637	
35	582	583	583	580	580	363
40	524	524	521	516	513	
45	463	462	456	449	445	351
50	399	397	391	382	377	
55	337	335	327	316	310	291
60	278	274	264	252	246	
65	220	215	205	193	188	203
70	163	160	149	139	135	
75	113	109	99	90	86	106
80	67	64	55	47	45	
85	29	25	18	17	17	25
90	0	0	0	0	0	

Angled (A) and Flat (F) Total Light Output, 3500K, 80 CRI (Lumens)
B*
1943
Power, 3500K, 80 CRI (Watts)
B*
21.7
Efficacy, 3500K, 80 CRI (Lumens Per Watt)
B*
90

B - Boosted Standard Output
* Based on ITL report: 85140 3500K, 80 CRI Boosted Standard Output (**B**) 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 =
1943 lm x 0.789 = 1533 lm

$$Efficacy = \frac{1533\ lm}{21.7\ W} = 71\ lm/W$$

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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.

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. The standard center rails are approximately 9/16" wide. Optional narrow rails are approximately 5/16" wide.

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.

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: 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 1700 lumens. One quarter of the 1x2 will be illuminated in emergency mode. Backup battery will operate at 6500K in emergency.

Chicago Plenum: Available on request.

MOUNTING: Luminaire is compatible with recessed junction boxes. Electrical connections can be made directly to wiring access plate shown above. Junction boxes can also be placed between mounting bars. Maximum center of feed location from luminaire center is 8-3/4" along the dimension parallel to the mounting bars, and 22-3/4" along dimension perpendicular to the mounting bars.

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: 12 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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