FINELITE®
Better Lighting

High Performance Recessed (HPR LED) 1x2, Surface Mount

Declare. Third Party Verified | Indigo-Clean® A brand of legrand® | IC - RATED

Indigo-Clean is a registered trademark of Kenall Manufacturing Co., a Legrand Company

Refer to page 2 for all door styles

Date

Project

Type

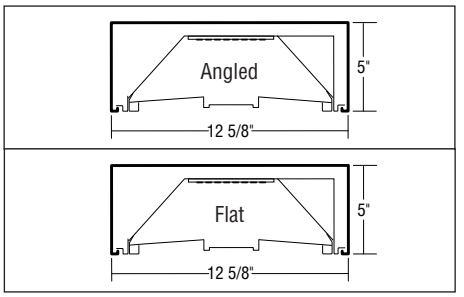
Comments

DESCRIPTION

Indigo-Clean Technology is a Continuous Environmental Disinfection System that emits a narrow spectrum light that kills bacteria, Influenza-A[3], and SARS-CoV-2 – the virus that causes COVID-19[3] – and is proven effective by recently conducted independent lab testing. Unlike UV disinfection, Indigo-Clean Technology is designed to safely and continuously disinfect a space while it is fully occupied.

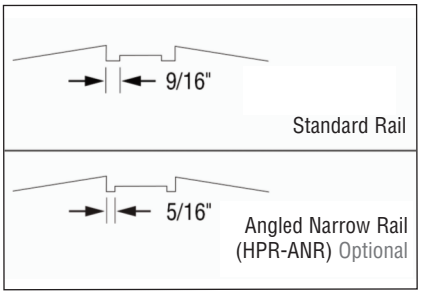
Single-Mode Indigo-Clean Technology utilizes a combination of blended white LEDs and 405nm LEDs on a single circuit board design. When the luminaires are on, the disinfection is active.

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.



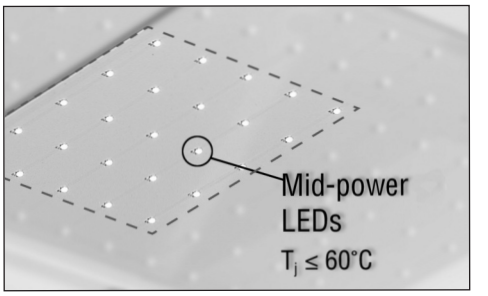
Shown with Surface Mount kit

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.



THERMAL MANAGEMENT

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

ORDERING GUIDE: *Sample Number: HPR LED - A - 1x2 - DCO - H - 832-SMIC - 277V - SC - SM - OBO - CP - RLA*

HPR LED								SM			

Finelite **Series HPR LED**
Door Styles (**A** - Angled, **ANR** - Angled Narrow Rail, **F** - Flat, **DD** - Double Diffuse[1])
Size (**1x2**)
Center Optic (**DCO** - Diffuse Center, **SCO** - Slotted Center, **RCO** - Round Center)[2]
Light Output (**H** - High, **V** - Very High)
LED CRI/CCT (**832-SMIC** - 80 CRI min, 3200K Single Mode Indigo-Clean
837-SMIC - 80 CRI min, 3700K Single Mode Indigo-Clean
843-SMIC - 80 CRI min, 4300K Single Mode Indigo-Clean)
Voltage (**120V**, **277V**)
Circuiting (**SC** - Single Circuit)
Ceiling Type (**SM** - Surface Mount)
Integrated Sensors (**OBD** - Daylight, **OBO** - Occupancy, **OBB** - Both)
Special Options (**CP** - Chicago Plenum
(**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) door options
[3] Shed the light on virus" article

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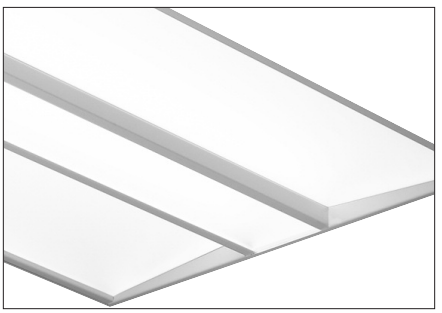
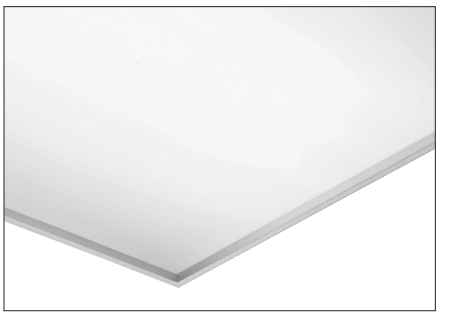
DOOR STYLES



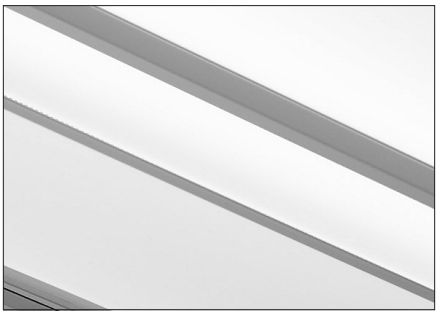
A - Angled
ANR - Angled Narrow Rail

F - Flat

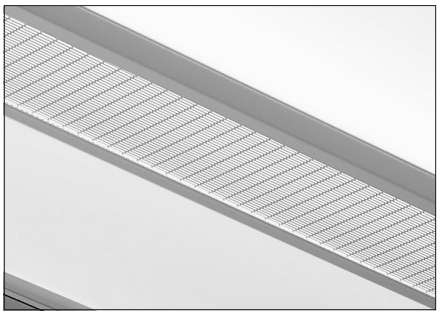


DD - Double Diffuse

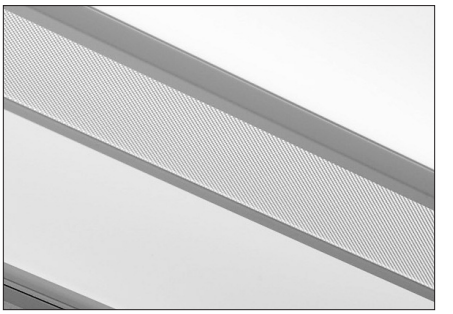
CENTER OPTICS



DCO - Diffuse Center



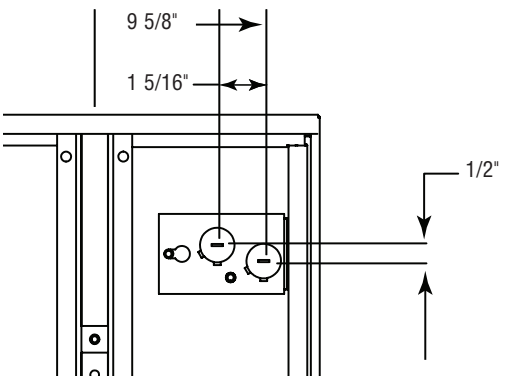
SCO - Slotted Center



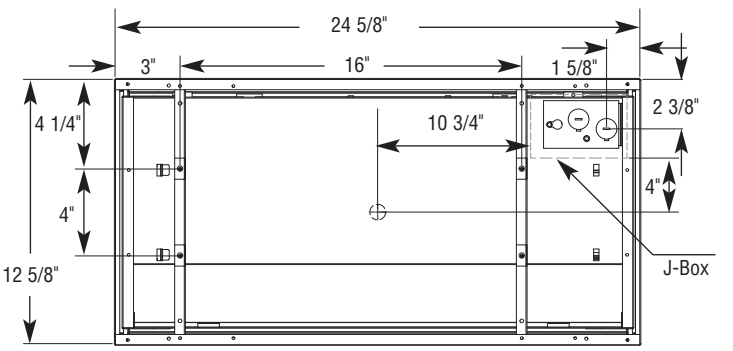
RCO - Round Center

DCO, SCO, and RCO are only available on Angled (A), Angled Narrow Rail (ANR), and Flat (F) doors.

WIRING ACCESS DETAIL



MOUNTING INFORMATION: 1x2



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

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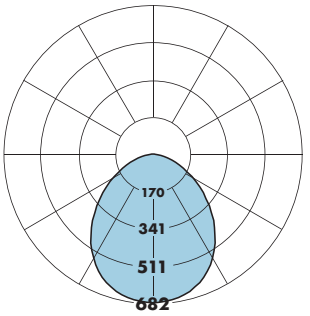
PHOTOMETRY

HPR LED-F-1x2
Very High Output
Efficacy: 81 lumens per watt
Total luminaire output: 2463 Lumens
30.4 Watts
Peak Cadela Value: 682 @ 0˚
CCT: 3700K
ITL LM79 Report 85140 (Family Correlated)



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	Flux
0	682	682	682	682	682	
5	679	679	679	679	679	64
10	667	668	668	669	671	
15	649	649	651	652	654	183
20	622	624	624	627	628	
25	588	589	591	592	592	272
30	547	548	549	549	548	
35	501	501	501	499	499	312
40	451	451	448	444	441	
45	398	397	392	386	383	302
50	343	341	336	329	324	
55	290	288	281	272	266	250
60	239	236	227	217	212	
65	189	185	176	166	162	174
70	140	138	128	120	116	
75	97	94	85	77	74	91
80	58	55	47	40	39	
85	25	22	15	15	15	22
90	0	0	0	0	0	

Information in charts below are for reference and based on ITL LM79 report 85140 (Family Correlated)

Flat (F) Total Light Output, 3700K, 80 CRI (Lumens)	
H	**V**
1891	2463
Power (Watts)	
H	**V**
22.7	30.4
Efficacy, 3700, 80 CRI (Lumens per Watt)	
H	**V**
83	81

Lumen Adjustment Factors - 80 CRI	
Indigo-Clean	
3200K	0.98
3700K	1.00
4300K	1.03

SAMPLE LUMEN ADJUSTMENT CALCULATION

High Output (H) Flat (F)
3200K, 80 CRI

Lumen Adjustment Factor = 0.98

Total Light Output =
1891 lm x 0.98 = 1853 lm

$$\textit{Efficacy} = \frac{1853 \text{ lm}}{22.7 \text{ W}} = 82 \text{ lm/W}$$

H - High Output, V - Very High Output

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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.

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, 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 narrow rails are approximately 5/16" wide. For optimum performance, continuously provide an average 50-60 footcandles on the work plane (24/7). Dimming generally reduces effectiveness and increases the variation in the disinfecting light's visual appearance.

INDIGO-CLEAN TECHNOLOGY: Single-Mode Indigo-Clean Technology utilizes a combination of blended white LEDs, and safe 405nm LEDs to continually disinfect a space and kill bacteria, Influenza-A[1], and SARS-CoV-2 – the virus that causes COVID-19[1]. Unlike UV disinfection, Indigo-Clean Technology is designed to safely and continuously disinfect a space while it is fully occupied. When the Indigo-Clean Technology light is on, disinfection is active. For optimum performance, continuously provide an average 50-60 footcandles on the work plane (24/7).

Single-Mode Indigo-Clean Technology: Continuous environmental disinfection system that uses a blended white LEDs and 405nm Indigo-Clean LEDs. The narrow spectrum light provides a safe visible light that disinfects the space. When the light is on, disinfection is active.

Dual-Mode Indigo-Clean Technology: Utilizes a two circuit board design. When the space is occupied it utilizes a combination of blended white LEDs and 405nm LEDs. When the space is unoccupied, it utilizes just the 405nm LEDs with increased output to increase disinfection efficacy. Available: Year-end, 2021.

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.

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: Two lumen packages available, High (**H**), and Very High (**V**). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: White LEDs: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours. 405nm LEDs: 70% of initial output at L70 @ 60,000 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)); **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.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver. Chicago Plenum option.

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: 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 10 3/4" along the dimension parallel to the mounting bars, and 4" along dimension perpendicular to the mounting bars.

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 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.130 (G), this luminaire contains an internal driver disconnect. UL 924 and UL 2108 PoE options available on request. EPA Est.No. 99530-CA-1. These fixtures are rated for Damp Location. IC-rated and Chicago Plenum options available. 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 2015/863. HPR can be used to comply with 2016 Title 24, Part 6 (JA8); high efficacy LED light source requirements. Consult factory for tailored lighting options. 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: 5-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

[1] *"Shed the light on virus" article*