KIRLIN
Lighting Since 1895

2"   4 LED   12 SYSTEM WATTS   **LRS-02046**

Pin Hole Open Appearance Downlight • LED
50,000+ Hour Life • 82 CRI • Air Tight Optional • Type IC
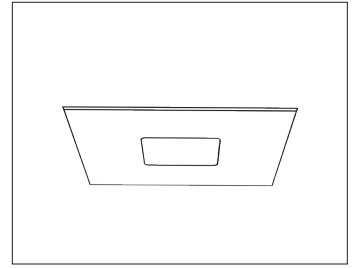
Specifications

LED Light Engine*
- 12 watt LED array. 3500°K standard (or see Options -30K or -41K).
- 450* lumens, 38 lumens per watt (total system).
- 82 CRI, 50,000+ hour life.**
- Fully sustainable: removable for servicing.

Optics
- Self-aligning optics ensure precise positioning of LED module with trim for optimal performance.

Thermal Management System
- All-aluminum proprietary heat sink, components and housing maximize luminaire's cool operation and long life while minimizing maintenance.

LED Power Supply
- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).

- 120-277V / 50-60Hz standard. Load insensitive.
- Dimming available, see Option -39.
- Kirlin remote SmartSupply™ driver instead, see Option -SS.

Pin Hole Trim
- White die cast flat aluminum. Low brightness black inner bevel and cone with clear lens above.
- Optional trim colors and finishes available.

Acrylic Enameled Aluminum Housing
- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, easily visible and serviced through aperture.
- Built-in plaster flange.
- Air Tight design available, see Option -AT.

Outlet Box
- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation
- Recess indoor or outdoor.
- Accommodates ceilings up to 1-1/8" thick or see Option -79.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.
- For residential mounting hardware for wood joist ceilings, see Option -RH.

UL, C-UL (Canada) Listings
- Wet locations.
- Type IC: for direct contact with insulation.
- Through-branch conductors (4 #12 AWG 90°C) for Type IC Listing.
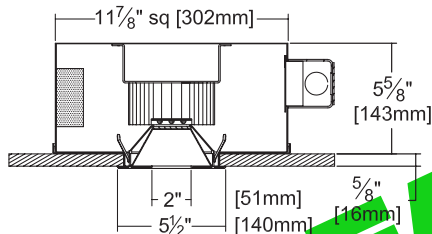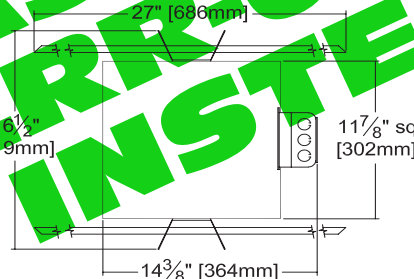
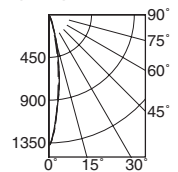**5 Year** — **FIVE YEAR Limited Warranty**
- Complete standard fixture.

Performance at a Glance

11⅞" sq [302mm]
5⅝" [143mm]
2" [51mm]
5½" [140mm]
⅝" [16mm]

Ceiling Cut-out 5" Sq.

27" [686mm]
16½" [419mm]
11⅞" sq [302mm]
14⅜" [364mm]

Standard (SPT)

Lumens:	193
Beam:	~18°
SC:	0.3
Effic:	46.3%
ITL Test:	61141R

450 / 900 / 1350
90° / 75° / 60° / 45°
0° 15° 30°

THE KIRLIN COMPANY

	SYSTEM WATTS	CATALOG NUMBER
LED LIGHTING	**12**	**LRS-02046**

Detailed Photometry - Installed Fixture
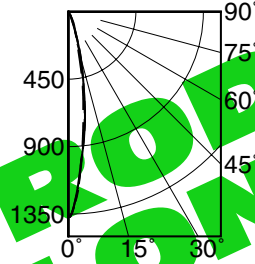
Photometry from I.T.L., Boulder, CO

Photometric testing done in accordance with IESNA LM-79-08

LRS-02046

Lumens: 193
Beam: ~18°
SC: 0.3
Effic: 46.3%
ITL Test: 61141R

Cone of Light*

Dist.	FC	Dia.
6	38.1	1.8
8	21.4	2.4
10	13.7	3.0
12	9.5	3.6
14	7.0	4.2
16	5.4	4.8

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	1370	1370	1370	1370	1370
5	991	995	999	1003	993
10	617	598	566	604	630
15	318	285	240	283	319
20	113	134	128	131	106
25	50	56	76	49	40
30	25	23	15	17	17
35	5	3	2	3	4
40	1	0	0	0	0
45	0	0	0	0	0
90	0	0	0	0	0

Cone of Light Key

FC   Distance from fixture
Footcandles at nadir (0°)
Dia.   Circle of light at 50% of FC

Dia. (in ft.) shown is where FC value is half the FC at nadir.

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 420 lumen light engines (within the established tolerance).

** LED Operating Characteristics: 50,000 hours at 70% lumen maintenance.

Options

LED Power Supply
-39   Dimmable power supply. 0-10V analog standard. Specify voltage. Consult factory for brand availability and pricing.
-97   Specify other voltage. Consult factory.
-SS   Remote mounted Kirlin SmartSupply™ driver, sold separately. Drives up to 12 fixtures at 20 watts each. Order LPS-1220A (0-10V analog dimming) or LPS-1220D (DMX dimming). See kirlinlighting.com or consult factory for more information.

Trims
-32   White oversize trim ring. Specify O.D.
-35   Natural aluminum acrylic enameled finish.
-37   Dark Bronze acrylic enameled finish.
-38   Black acrylic enameled finish.
-45   Gasket between trim flange and ceiling.
-94   Custom color/finish. Specify. Consult factory.
-BN   Brushed satin nickel finish.

Filter
-AM   Amber filter.
-DP   Dichroic Peach filter.
-GE   Green / Botanical filter.
-HX   Hexcel louver.

-MB   Medium Blue filter.
-PK   Pink / Rose filter.
-XF   Custom filter other than shown. Specify.

Other
-79   Extension collar for up to 2" thick ceilings.
-99   Special modification. Consult factory.
-AT   Air tight version. Meets ASTM E283 restricted airflow of 2 CFM maximum. Option -RH required.
-30K   Color temperature 3000°K instead.
-41K   Color temperature 4100°K. Consult factory.
-RH   Residential mounting hardware instead. Suitable for wood joist ceilings with spacing from 14⅛" to 25⅞" with ⅝" vertical adjustability.

SUBMITTAL DATA

JOB NAME

TYPE

WATTAGE   VOLTAGE

CATALOG NUMBER

APPROVAL STAMP