

CATALOG #	TYPE
JOB NAME	VOLTAGE

**MRS-04778-1300L**

## RADIANCE™ 4" Square Downlight Tunable† White LED • 1650-8000 CCT

†Circadian Rhythm Automated Control Versions Available  
(See Option -LWC)



Up to 50,000 Hour Life  
Regressed Lens • White Trim

### Specifications

#### Delivered System Performance\*

- Lumen Series:
  - 1300L: 1300 nominal lumens.
- Distribution: WFL.
- 30 watts nominal power consumption.
- araya<sup>5</sup> Logic Module (ALM) - Included**
- <2 MacAdam ellipse color consistency over 50,000 hours.
- On board thermal turndown.
- In-line spectral capture and storage gives consistent CRI and CCT across all arrays.
- Scene set (by others) allows up to 5 scenes to be pre-programmed and recalled using either 0-10V dimmer or Bluetooth.

#### Dimming & Color Control Interface Included (Also see Options):

- 0-10V with Bluetooth BLE included or see Options. Dims to 1%.

#### 5 Color LED Array

- Tunable range: 1650 - 8000°K.
- CRI: 90+ standard.
- Dimmable to 1% at constant CCT
- L70 of 50,000 hours.

#### LED Power Supply - INTERNAL

- 120-277V / 50-60Hz input. Load insensitive.
- Suitable for outdoor / indoor use: -30°C (-22°F) to 50°C (122°F)..

#### Trim Assembly

- Tapered aluminum all white smooth self-flanged trim (field paintable).
- Regressed tempered microprismatic lens.

#### 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, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.

#### 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 1¼" thick.
- Compatible with fire rated enclosures (by others).
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

#### UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Type Non-IC: Not for direct contact with insulation.
- Through-branch conductors (4 #12 AWG 90°C).

#### IEC & FCC Compliance

- Meets IEC/EN 61000-3-2 electromagnetic compatibility standard.
- FCC Part 15 certified for EMI/RFI emissions.

**5 Year FIVE YEAR Limited Warranty**

- Complete standard fixture.

MUST SPECIFY	OPTIONAL	
Product Number	Dimming & Color Control Options	Options
<b>MRS-04778-1300L</b>	-DMX (DMX512A-RDM) -LWC (Legrand Wattstopper)	See "Options" below

**Ordering Example:**  
**MRS-04778-1300L-DMX-94**

### Options

#### Input Power

- 97 Specify other voltage. Consult factory.

#### Dimming & Color Control Interface: Specify One (Controls by Others)

- DAL For DALI system controls. Consult factory.
- DMX For DMX512A-RDM controls. Dim to black.
- ECO For Lutron EcoSystem controls. Dim to black. Consult factory.
- LWC For Legrand Wattstopper controls. Dim to black.

#### Lens and Trim

- 13 Clear poly lens below lens. Photometric distribution is unaffected.
- 23 Frosted microprismatic lens instead.
- 32 White oversize trim ring. Specify O.D.
- 35T Silver (natural aluminum) acrylic enameled trim.
- 37T Dark bronze acrylic enameled trim.
- 38T Black acrylic enameled trim.
- 45 Gasket between trim flange and ceiling.
- 46 Gasket between trim and lens.
- 94 Custom color/finish. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) trim finish.

#### Other

- 79 Extension collar for ceilings up to 2" thick.
- 99 Special modification. Consult factory.
- FS Single in-line fuse.
- SH Sealed housing and junction box.

Also see  
**MCD-04010**  
for 0-10V  
wall control



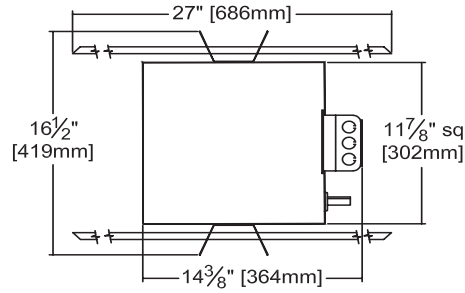
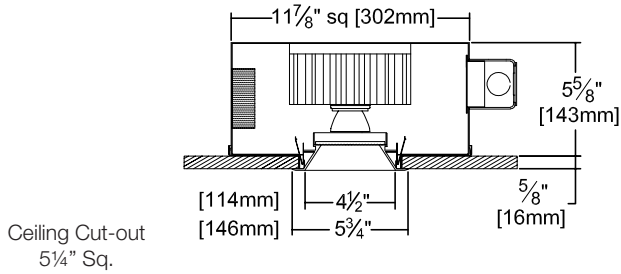
\*See note next page

# MRS-04778-1300L

## PERFORMANCE



## Dimensions



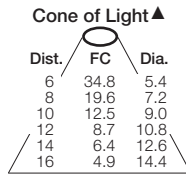
Ceiling Cut-out  
5 1/4" Sq.

## Detailed Photometry - Installed Fixture

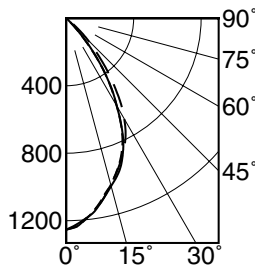
Photometric testing done in accordance with IESNA LM-79

Photometry from I.T.L., Boulder, CO

Lumens: 1142  
Beam: ~48°  
SC: 0.9  
LPW: 31  
Efficiency: 57.1%  
ITL Test: 91527



Total System Watts 37.5



	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	1253	1253	1253	1253	1253
5	1206	1204	1204	1212	1199
15	1022	1022	1018	1021	1030
25	790	800	822	803	801
35	410	443	509	448	407
45	56	94	180	93	57
55	2	4	9	4	2
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

### Multiplier Values (non-dimmed)

Tested with circadian module set at 3500°K

CCT	LUMEN FACTOR	WATTAGE FACTOR	LPW FACTOR
1650	0.550	0.651	0.84
2000	0.724	0.739	0.98
2500	0.947	0.900	1.05
3000	1.004	1.007	1.00
<b>3500</b>	<b>1.000</b>	<b>1.000</b>	<b>1.00</b>
4000	0.984	0.992	0.99
4500	0.972	1.006	0.97
5000	0.950	1.021	0.93
5500	0.905	0.974	0.93
6000	0.839	0.884	0.95
6500	0.782	0.834	0.94
7000	0.723	0.793	0.91
7500	0.680	0.765	0.89
8000	0.641	0.739	0.87

## LM-79 Certified Photometry

\* 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 2000 lumen (-1300L) light engines (within the established tolerance).

▲ Cone of Light Key  
Dia. (in ft.) shown is where FC value is half the FC at nadir.

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

## SUBMITTAL DATA

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

## APPROVAL STAMP



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLATION TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture to the office of manufacturer within the years of original shipment. Liability of manufacturer is limited to the replacing and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is subject to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.