

# RDA4L Series

## Mini O2 Multiple LED Recessed Downlight Adjustables

### Specifications/Features

#### Housing/Mounting

High performance fixture delivering over 1400 lumens per head.  
 Non-IC housing. Requires minimum 3" clearance around fixture from insulation material. Thermal protection provided in case of improper insulation use.  
 New construction housing design can also be used in remodel applications.  
 From single to four head units available. The four head unit is available in two configurations: rectilinear and two-by-two square.  
 Housing may be used for trimmed or trim-less applications.  
 Heavy duty 18-gauge steel housing; powder coat painted in matte black, white or silver.  
 Housing weights: 1-head = 5lbs, 2-head = 8lbs, 3-head = 11lbs, 4-head = 13lbs, 4-head 2X2 = 13lbs

Complete fixture [heads, drivers and junction box] can be accessed from below the ceiling.

Wing type mounting brackets allow for 3" vertical adjustment. Brackets will accept optional HB-24 flat hanger bars or HBC-24 "C" channel hangers.

#### Electrical

UL8750 and Class 2 Compliant; RoHS Compliant, US only.  
 Output over voltage, over-current and short circuit protection.  
 Approved for through circuit wiring. Maximum of (8) No. 12 AWG branch circuit conductors (4 in, 4 out).  
 Junction box has (9) 1/2" pry-outs.  
 Wire rating: 90°C. Thermally protected.

#### Lamp

Light engine consists of a single, high lumen output multi-chip LED array available in two wattage/lumen packages: 10W/1100Lm and 14W/1400Lm.  
 Available in 2700K, 3000K, 3500K and 4000K in both standard (83) and high (90+) CRI. Crisp white is available in 3000K. This LED option delivers 90+ color rendering with additional violet wavelengths that enhance white visibility.  
 Excellent fixture-to-fixture color consistency within a 2-step MacAdam ellipse tolerance.  
 Precision TIR optics produce 12°, 29° and 37° beam distributions. Each TIR optic has been optically engineered to provide a smooth uniform beam, maximizing output and minimizing glare.  
 System designed and rated for 50,000 hours at 70% lumen maintenance.  
 Lamp heads feature a constant tension design for tilt and rotation adjustability. Tilt mechanism can also be locked into place with a provided allen wrench.  
 Lamp heads provide 370° rotation and 45° tilt adjustability inside housing. For increased adjustability, the lamp head features a firm-feel detent pull-down mechanism (2" extension) which allows the head to tilt up to 90°. The pull-down mechanism can also be locked into place with a provided allen wrench.  
 Optional FA-44 Snoot/Accessory Holder accepts up to (2) LF16 60MM lenses or FA-16 60MM black honeycomb louver.

#### Trim Options

- Trimmed
  - Steel powder coat matte black, white and silver trims are available.
  - Steel torsion springs provide secure retention in housing.
- Trimless
  - Allows ceiling to be finished and painted right to the aperture opening for a clean appearance. Trimless frame is steel with a matte white powder coat finish.

#### Dimming

All RDA4L Series fixtures are available for non-dimming and dimming applications.  
 For a list of compatible dimmers and dimming ranges, refer to the [LED Dimming Catalog](#).

#### Warranty

This fixture is covered by ConTech's five (5) year full replacement guarantee after date of purchase.

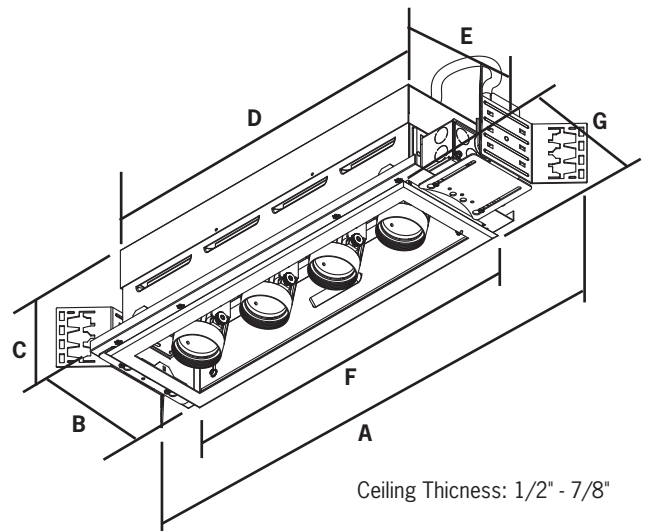
#### Listing

cCSAus Certified to UL standards.  
 Suitable for dry or damp locations.  
 cCSAus Certified to UL924 Standard for Emergency Lighting.  
 Assembled in the USA.



	Series-1	Series-2
<b>Input Voltage</b>		
Non-Dimming	120V AC, 50/60Hz	120V AC, 50/60Hz
Non-Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
0-10V Dimming	120V AC, 50/60Hz	120V AC, 50/60Hz
0-10V Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
Triac Dimming: (F. Phase)	120V AC, 50/60Hz	120V AC, 50/60Hz
Non-Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
ELV Dimming (R. Phase)	120V AC, 50/60Hz	120V AC, 50/60Hz
Non-Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
<b>Input Wattage*</b>		
	10	14
<b>Input Current (A)* 120/277</b>		
	.08/.04	.12/.05
<b>Color Temp</b>		
	2700K/3000K/ 3500K/4000K	2700K/3000K/ 3500K/4000K
<b>CRI Standard/High</b>		
	83 (80min) / 90+	83 (80min) / 90+
<b>Driver</b>		
Power Factor	> 0.90	> 0.90
THD	< 20%	< 20%
<b>Dimming</b>		
0-10V Dimming	15-100%	15-100%
Triac Dimming (F. Phase)	10-100% (120V Only)	10-100%
ELV Dimming (R. Phase)	10-100% (120V Only)	10-100%

\*Based upon a single head



MODEL	OVERALL			HOUSING		TRIM EDGE = 1"		CEILING CUT-OUT	
	LENGTH A	WIDTH* B	HEIGHT C	LENGTH D	WIDTH E	LENGTH F	WIDTH G	LENGTH	WIDTH
<b>X1</b>	15-1/2"	6-7/8"	6-3/4"	5-7/8"	5-1/4"	6-9/16"	6-9/16"	6-1/8"	5-1/2"
<b>X2</b>	20-1/4"	6-7/8"	6-3/4"	10-9/16"	5-1/4"	11-5/16"	6-9/16"	10-7/8"	5-1/2"
<b>X3</b>	24-7/8"	6-7/8"	6-3/4"	15-5/16"	5-1/4"	16"	6-9/16"	15-5/8"	5-1/2"
<b>X4</b>	29-5/8"	6-7/8"	6-3/4"	20"	5-1/4"	20-3/4"	6-9/16"	20-5/16"	5-1/2"
<b>X22</b>	20-1/4"	11-5/8"	6-3/4"	10-9/16"	9-15/16"	11-5/16"	11-5/16"	10-7/8"	10-1/4"

\*WING BRACKET (RL-KIT #3) WIDTH = 7-3/8"

# RDA4L Series

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### Ordering information

Example Order:  -

Housing	LED Series	Color Temp	Electrical/Dimming	Beam	Lamps	Housing/ Head Finish	Trim Finish	Options
<b>RDA4L</b>	<b>1</b> - 1100 Lumens <b>2</b> - 1400 Lumens	<b>27K</b> - 2700K <b>30K</b> - 3000K <b>35K</b> - 3500K <b>40K</b> - 4000K <b>27KC</b> - 2700K, 90+ CRI <b>30KC</b> - 3000K, 90+ CRI <b>35KC</b> - 3500K, 90+ CRI <b>40KC</b> - 4000K, 90+ CRI <b>30KW</b> - 3000K, 90+ CRI, Crisp White	<b>12</b> - 120V Non-Dimming <b>27</b> - 277V Non-Dimming <b>12D1</b> - 120V TRIAC (F. Phase) Dimming <b>12D2</b> - 120V 0-10V Dimming <b>27D2</b> - 277V 0-10V Dimming <b>12D5</b> - 120V ELV (R. Phase) Dimming	<b>S</b> - 12° Beam <b>M</b> - 29° Beam <b>F</b> - 37° Beam	<b>X1</b> - One Square <b>X2</b> - Two Linear <b>X3</b> - Three Linear <b>X4</b> - Four Linear <b>X22</b> - Four Square 2x2	<b>BLK</b> - Matte Black <b>WHT</b> - Matte White <b>SL</b> - Satin Silver	<b>B</b> - Matte Black <b>P</b> - Matte White <b>S</b> - Satin Silver <b>N</b> - Trimless	<b>CP<sup>1</sup></b> - Chicago Plenum <b>ER<sup>2</sup></b> - Factory Installed 7W/200mA Emergency Battery Backup, Remote Test Switch <b>EP<sup>2</sup></b> - Factory Installed 7W/200mA Emergency Battery Backup, Internal Test Switch Installed in Side Wall of Housing

Consult factory when different beams, color temperatures, lumen packages, or multiple circuits (2-maximum) are required in a single multiple-head fixture.

1. Chicago Plenum is not available for use with Series 2. Cannot be used with the Emergency Battery Backup option.  
2. Emergency Battery Backup: For use in new construction applications only - requires above ceiling access. Will only energize one (1) head on a multi-head unit - 400 lumen nominal average for either Series 1 or Series 2.

#### Accessories

- 2INOPTIC-S** - 2" TIR Optic, 12° Beam
- 2INOPTIC-M** - 2" TIR Optic, 29° Beam
- 2INOPTIC-F** - 2" TIR Optic, 37° Beam
- HB-24** - 27" Flat Hanger Bars
- HBC-24** - 25" C-Channel Hanger Bars
- FA-16 60MM** - 2-3/8" Dia. Black Honeycomb Louver
- FA-44-(B, P, S)** - 1" Snoot/Accessory Holder
- LF16-\* 60MM** - 2-3/8" Dia. Tempered Glass Lenses; Requires FA-44 Snoot/Accessory Holder

Note: When a Snoot, Louver, or Lens is desired, ensure the same quantity is ordered as the number of heads on the unit, e.g. a two-head unit would require two media be ordered.

#### \*Color/Pattern Legend

- A (Amber), -B (Blue), -CL (Clear), -G (Green), -LB (Light Blue), -R (Red), -RO (Rose), -Y (Yellow), -73 (Spread Lens), -LS (Linear Spread Lens), -SL (Soft Light), -SOL (Solite), -UV (Optivex UV Filter)

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### Photometrics

#### Multiplication Factors

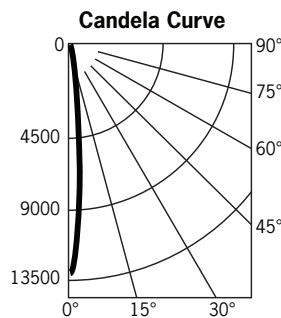
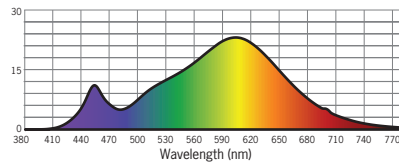
CCT	STANDARD CRI	HIGH CRI	SERIES 1, 11W
2700K	0.94	0.70	0.75
3000K	N/A	0.75	0.75
3500K	1.0	0.81	0.75
4000K	1.0	0.87	0.75

Photometric and wattage information are based upon test performance for a single head unit

### 14W Spot Beam, 3000K: RDA4L230K12D1SX1

Designed for 50,000 Hour Lamp Life<sup>1</sup>; LM-63 Test No. 87351

Light Output (Fixture Delivered Lumens): 1184  
 Total Watts@120V: 13.8; Lumens Per Watt: 85.8  
 Center Beam Candle Power: 13269  
 Color Rendering Index (CRI)<sup>2</sup>: 83  
 Color Temperature (CCT)<sup>3</sup>: 3073K  
 Spectral Power Distribution Chart<sup>4</sup>  
 LM-79 Test No. 78891



#### Candlepower Summary

FROM 0	CANDELA	LUMENS
0	13269	
5	8506	617
15	1364	394
25	190	99
35	33	23
45	20	15
55	15	13
65	12	12
75	6	7
85	3	3
95	0	

#### Intensity Distribution

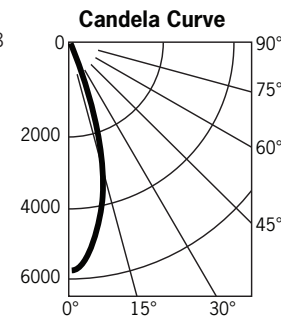
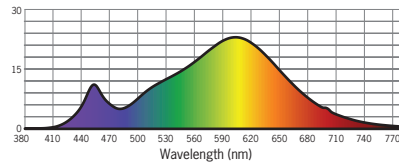
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	829.3	0.9
6'	368.6	1.3
8'	207.3	1.7
10'	132.7	2.2
12'	92.1	2.6
14'	67.7	3.0

Beam Distribution: 12°  
 Spacing Criterion: 0.22

### 14W Medium Beam, 3000K: RDA4L230K12D1MX1

Designed for 50,000 Hour Lamp Life<sup>1</sup>; LM-63 Test No. 87352

Light Output (Fixture Delivered Lumens): 1432  
 Total Watts@120V: 13.8; Lumens Per Watt: 103.8  
 Center Beam Candle Power: 5909  
 Color Rendering Index (CRI)<sup>2</sup>: 83  
 Color Temperature (CCT)<sup>3</sup>: 3086K  
 Spectral Power Distribution Chart<sup>4</sup>  
 LM-79 Test No. 788890



#### Candlepower Summary

FROM 0	CANDELA	LUMENS
0	5909	
5	5481	486
15	2711	718
25	278	179
35	52	35
45	10	9
55	3	2
65	1	1
75	1	1
85	0	0
95	0	

#### Intensity Distribution

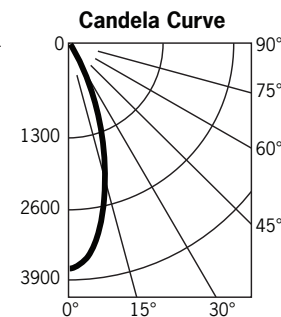
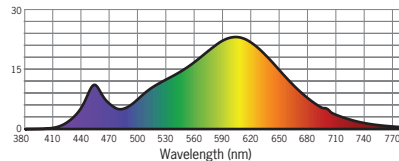
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	369.3	1.9
6'	164.1	2.9
8'	92.3	3.8
10'	59.1	4.8
12'	41.0	5.7
14'	30.1	6.7

Beam Distribution: 29°  
 Spacing Criterion: 0.46

### 14W Flood Beam, 3000K: RDA4L230K12D1FX1

Designed for 50,000 Hour Lamp Life<sup>1</sup>; LM-63 Test No. 87353

Light Output (Fixture Delivered Lumens): 1478  
 Total Watts@120V: 13.8; Lumens Per Watt: 107.1  
 Center Beam Candle Power: 3752  
 Color Rendering Index (CRI)<sup>2</sup>: 83  
 Color Temperature (CCT)<sup>3</sup>: 3061K  
 Spectral Power Distribution Chart<sup>4</sup>  
 LM-79 Test No. 79250



#### Candlepower Summary

FROM 0	CANDELA	LUMENS
0	3752	
5	3450	310
15	2254	625
25	960	429
35	115	82
45	25	22
55	5	5
65	3	3
75	2	2
85	1	1
95	0	

#### Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	234.5	2.3
6'	104.2	3.5
8'	58.6	4.6
10'	37.5	5.8
12'	26.1	7.0
14'	19.1	8.1

Beam Distribution: 37°  
 Spacing Criterion: 0.58

1. Accuracy of rendering colors  
 2. Color appearance of light source  
 3. Colors present within the light source

<sup>4</sup>Dependent on surrounding temperatures