

# 2 SERIES LED ADJUSTABLE

High-output, low profile, and infinite adjustment -- these small aperture downlights make elegant design statements in discerning residential, retail, and hospitality environments.

PROJECT NAME:	TYPE:
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## ORDERING INFORMATION



Quick Ship Product. All rough in components ship within 10 days up to quantities of 100.



JA8-2022 INDICATED BY SHADING

TRIM	RATING	FLANGE FINISH	CRI / WATTAGE PACKAGE	CCT	OPTIC (UGR)	INSTALL TYPE	CEILING THICKNESS	POWER SUPPLY	MEDIA	FLANGE CONFIGURATION		
<b>2RA</b> Round Expanded Aperture <b>2PA</b> Round Pinhole Aperture <b>2SA</b> Square Expanded Aperture	1 Dry/Damp 2 Wet* *(Lens sealed in place)	<b>WH</b> White <b>AG</b> Satin Silver <b>IG</b> Industrial Gray <b>AU</b> Cashmere Gold <b>AB</b> Arch Bronze <b>BB</b> Burnt Bronze <b>BK</b> Black <b>SS</b> Stainless Steel* *(Increased lead time) <b>CH</b> Chrome* *(Increased lead time) <b>MB</b> Matte Bronze* *(Increased lead time) <b>PB</b> Polished Bronze* *(Increased lead time) <b>PR</b> Primer <b>CF</b> Custom* *(Consult Factory)	<b>LOW FLUX STATIC WHITE 3.73" TALL HOUSING</b> <b>80S06A</b> 80+ CRI, 6 Watts (Delivered - 2RA 670, 2PA 544, 2SA 603) <b>80S11A</b> 80+ CRI, 11 Watts (Delivered - 2RA 1076, 2PA 886, 2SA 1011) <b>80S15A</b> 80+ CRI, 15 Watts (Delivered - 2RA 1471, 2PA 1194, 2SA 1386) <b>90S06A</b> 90+ CRI, 6 Watts (Delivered - 2RA 578, 2PA 469, 2SA 520) <b>90S11A</b> 90+ CRI, 11 Watts (Delivered - 2RA 928, 2PA 764, 2SA 872) <b>90S15A</b> 90+ CRI, 15 Watts (Delivered - 2RA 1268, 2PA 1029, 2SA 1195) <b>97S06A</b> 97+ CRI, 6 Watts (Delivered - 2RA 509, 2PA 412, 2SA 458) <b>97S11A</b> 97+ CRI, 11 Watts (Delivered - 2RA 817, 2PA 672, 2SA 767) <b>97S15A</b> 97+ CRI, 15 Watts (Delivered - 2RA 1116, 2PA 905, 2SA 1052)	24 2400K* *(90+ CRI only, 15W max) 27 2700K 30 3000K 35 3500K 40 4000K	10 10° (<13) *(15W packages only) 15 15° (<13) 20 20° (<13) 25 25° (<13) 30 30° (<13) 40 40° (<13) 60 60° (<13) *(Not recommended for 2PA)	<b>Housing</b> <b>W/ Integral Driver (HB)</b> <b>NC</b> NIC <b>IC</b> IC <b>AT</b> IC, Airtight* *(CCEA, Airtight and Title 24 compliant housing)	0 0.125" - 0.49" *(RM, RR Install Types only) 1 0.50" - 0.75" 2 0.76" - 1.25" *(Max Tilt 35°, see page 4 for details.) 3 1.26" - 2.00" *(Max Tilt 13°, see page 4 for details.) 4 2.01" - 3.00" *(Max Tilt 5°, see page 4 for details.)	<b>(120V)</b> <b>TR2</b> Philips, 2% Forward/Reverse <b>L23</b> Lutron, Hi-Lume 1% 2-Wire <b>(120-277V)</b> <b>LH1</b> Lutron, Hi-Lume 1% Ecosystem* *(Not available for 6W) <b>LP1</b> Lutron, Premier 0.1% Ecosystem <b>AN4</b> Philips Titanium 1% 0-10V, LOG <b>LN2</b> Philips Titanium 1% 0-10V, LIN <b>EA2</b> eldoLED, 0.1% 0-10V, LOG <b>LA2</b> eldoLED, 0.1% 0-10V, LIN <b>ED1</b> eldoLED, SOLOdrive 0.1% DALI-2, LOG <b>LD1</b> eldoLED, 0.1% DALI-2, LIN <b>AS1/ASR</b> Athena Control eldoLED, 0.1% 120-277V* <b>CS1/CSR</b> Casambi Control eldoLED, 0.1% 120-277V* *(Includes Node, Extended lead time, consult factory. ASR/CSR includes shunt, Casambi is remote only)	<b>Standard Media</b> <b>04</b> Soft Focus Lens *(Required for 10° optic) <b>Alternate Media</b> <b>NL</b> No Lens* *(Not available for wet location or Warm Dim) <b>02</b> Honeycomb Louver* *(Not available for wet location or Warm Dim) <b>03</b> Clear Glass Lens* *(Not available for Warm Dim) <b>05</b> Frosted Glass Lens <b>09</b> Ultra Violet Lens <b>11</b> Shatterproof Soft Focus Lens <b>12</b> Shatterproof Frosted Lens <b>26</b> Frosted Linear Spread Lens* *(Not available for wet location)	<b>F</b> Flange Overlay (No Applique) <b>G</b> Zero Sightline Gypsum (1/16" Applique)* *(Not available for wet location) <b>P</b> Zero Sightline Plaster (1/8" Applique)* *(Not available for wet location)		
		<b>HIGH FLUX STATIC WHITE 6.5" TALL HOUSING</b> <b>80S21A</b> 80+ CRI, 21 Watts (Delivered - 2RA 1974, 2PA 1624, 2SA 1856) <b>90S21A</b> 90+ CRI, 21 Watts (Delivered - 2RA 1702, 2PA 1400, 2SA 1600) <b>97S21A</b> 97+ CRI, 21 Watts (Delivered - 2RA 1498, 2PA 1232, 2SA 1408)	20 20° (<13) 25 25° (<13) 40 40° (<13) 60 60° (<13) *(Not recommended for 2PA)	<b>Remodel</b> <b>RM</b> Remodel <b>RR</b> Remodel-Remodel	<b>WARM DIM 6.5" TALL HOUSING</b> <b>90W11A</b> 90+ CRI, 11 Watts, Incandescent Profile: 2700K - 1800K (Delivered - 2RA 656, 2PA 566, 2SA 590) Standard Profile: 3000K - 1800K (Delivered - 2RA 645, 2PA 540, 2SA 581) <b>90W15A</b> 90+ CRI, 15 Watts, Incandescent Profile: 2700K - 1800K (Delivered - 2RA 917, 2PA 791, 2SA 862) Standard Profile: 3000K - 1800K (Delivered - 2RA 904, 2PA 756, 2SA 850) *(SEE PAGE 3 FOR DETAILED WARM DIM PROFILE COMPARISON.)	WL 2700K - 1800K WD 3000K - 1800K WL 2700K - 1800K WD 3000K - 1800K	15 15° (<13) 20 20° (<13) 25 25° (<13) 40 40° (<13) 60 60° (<13) *(Not recommended for 2PA)	<b>TUNABLE WHITE 6.5" TALL HOUSING</b> <b>90T17A</b> 90+ CRI, 17 Watts, Warm Profile: 4000K - 1800K (Delivered - 2RA 1067, 2PA 908, 2SA 960) Cool Profile: 5000K - 2700K (Delivered - 2RA 1049, 2PA 900, 2SA 944)	TR 4000K - 1800K TH 5000K - 2700K	*(Includes Node, Extended lead time, consult factory. ASR/CSR includes shunt, Casambi is remote only)	<b>TUNABLE WHITE REMOTE (0.1%, 120-277V)</b> <b>DD1</b> eldoLED, DUALdrive DALI-2, LOG <b>DG1</b> eldoLED, DUALdrive 0-10V, LOG <b>DN1</b> eldoLED, DUALdrive 0-10V, LIN <b>AD1/ADR</b> Athena Control, eldoLED, DUALdrive* <b>CD1/CDR</b> Casambi Control, eldoLED, DUALdrive* *(Includes Node, Extended lead time, consult factory. ASR/CSR includes shunt, Casambi is remote only)	
		<b>FINISH IMAGES ON PAGE 2</b>										
		*ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K PAIRED WITH 20° OPTIC AND SOFT FOCUS LENS. **ALL T-24 COMPLIANCE REFLECT 3000K PERFORMANCE. REFERENCE PAGE 3 FOR COMPLETE T24 COMPLIANT CONFIGURATION BREAKDOWN.										
		*(SEE PAGE 3 FOR UGR RATINGS.										

## PART NUMBER NOTES

- Trims ships as e.g., 2RA1-WH-80S15A2-2HB1-L2304
- Housing ships as e.g., NCL-2RF-1-LED-01
- Drivers ship with
- Trim Appliqué ships with housing



**Declare.**

**LUCIFER**<sup>®</sup>  
LIGHTING COMPANY

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As part of its policy of continuous research and product development, the company reserves the right to change or withdraw specifications without prior notice.

[PH] +1-210-227-7329 pg. 1  
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## ACCESSORIES

### SECONDARY MEDIA

- HCL-2** Honeycomb Louver\*

\*[Not available for Warm Dim]

- CGL-2** Clear Glass Lens\*

\*[Not available for Warm Dim]

- SFL-2** Soft Focus Lens
- FGL-2** Frosted Glass Lens
- UVL-2** Ultra Violet Lens
- FLSL-2** Frosted Linear Spread Lens
- SFL-2-SP** Shatterproof Soft Focus Lens
- FGL-2-SP** Shatterproof Frosted Lens

### ROUTER TOOL GUIDE (Dry / Damp locations only)

Recommended for Zero-Sightline installations in wood ceilings.

- DLA-RTG-2S-RD** Tool, router guide, round; reusable
- DLA-RTG-2S-SQ** Tool, router guide, square; reusable

### STATIC WHITE REPLACEMENT OPTICS

- RO-50-15-S** 15° optic
- RO-50-20-S** 20° optic
- RO-50-25-S** 25° optic
- RO-50-40-S** 40° optic
- RO-50-60-S** 60° optic\*

\*[Not recommended for 2PA]

### WARM DIM REPLACEMENT OPTICS

- RO-50-20-W** 20° optic
- RO-50-25-W** 25° optic
- RO-50-40-W** 40° optic
- RO-50-60-W** 60° optic\*

\*[Not recommended for 2PA]

### TUNABLE WHITE REPLACEMENT OPTICS

- RO-50-15-T** 15° optic
- RO-50-20-T** 20° optic
- RO-50-25-T** 25° optic
- RO-50-40-T** 40° optic
- RO-50-60-T** 60° optic\*

\*[Not recommended for 2PA]

### HANGER BAR EXTENDER KIT

Extends hanger bars from 24.0" to 46.0" maximum.

- 2S-HBE-46** Extender, Hanger Bar

### FURRING CHANNEL ACCESSORY KIT

Recommended for installations in furring channel. Available for ceiling thicknesses from 0.125" - 1.25".

- DHA-FC-KIT**

### ADJUSTMENT TOOL

One included with every four fixtures.

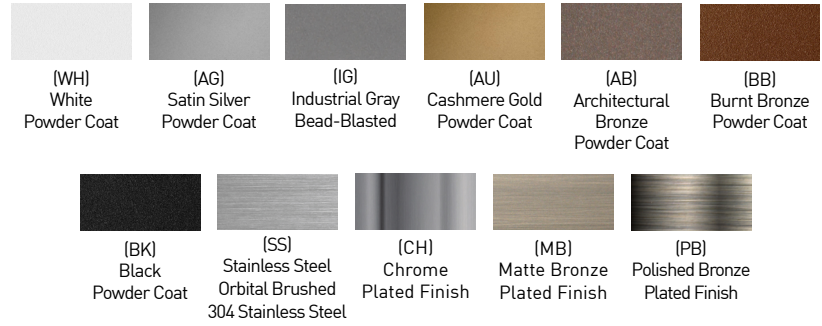
- TOOL-HEX-050**

### EMERGENCY LIGHTING - REMOTE MOUNT ONLY

During disruption of main power, emergency battery inverter provides temporary 120V or 277V to fixture.

- EMB-S-25-120/277-LEDX** 25 watt max capacity, 120 or 277 VAC 60Hz, Non-Dimmable
- EMB-S-100-120-LEDX** 100 watt max capacity, 120 VAC 60Hz, 0-10V Dimmable
- EMB-S-100-277-LEDX** 100 watt max capacity, 277 VAC 60Hz, 0-10V Dimmable
- EMB-S-250-120/277-LEDX** 250 watt max capacity, 120 or 277 VAC 60Hz, 0-10V Dimmable

## FINISHES BY LUCIFER LIGHTING™



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## PERFORMANCE - 3000K

THIS 24 JA8-2022 INDICATED BY SHADING

CRI / WATTAGE PACKAGE	WATTAGE	ADJUSTABLE - 20° OPTIC - SOFT FOCUS LENS					
		2RA		2PA		2SA	
		DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW
80S06A	6	670	112	544	91	603	100
80S11A	11	1076	98	886	80	1011	92
80S15A	15	1471	98	1194	80	1386	92
80S21A	21	1974	94	1624	77	1856	88
90S06A	6	578	96	469	78	520	87
90S11A	11	928	84	764	69	872	79
90S15A	15	1268	84	1029	69	1195	80
90S21A	21	1702	81	1400	67	1600	76
97S06A	6	509	85	413	69	458	76
97S11A	11	817	74	672	61	767	70
97S15A	15	1116	74	905	60	1052	70
97S21A	21	1498	71	1232	59	1408	67
90W11AWL (2700K-1800K)	11	656	60	566	51	590	54
90W11AWD (3000K-1800K)	11	645	59	540	49	581	53
90W15AWL (2700K-1800K)	15	917	69	791	53	862	57
90W15AWD (3000K-1800K)	15	904	60	756	50	850	57
90T17ATR (4000K-1800K)	17	1067	57	908	54	960	56
90T17ATH (5000K-2700K)	17	1049	60	900	53	944	56

CRI / WATTAGE PACKAGE	WATTAGE	ADJUSTABLE - 10° OPTIC - FIELD REDUCER KIT					
		2RA		2PA		2SA	
		DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW
80S15C	15	491	33	415	28	453	30
90S15C	15	423	28	358	24	390	26
97S15C	15	365	24	309	21	337	22

### OUTPUT MULTIPLIER

CCT	CCT SCALE
2400K	0.76
2700K	0.97
3000K	1.000
3500K	1.03
4000K	1.08

### MEDIA LIGHT LOSS FACTOR

MEDIA	LIGHT LOSS FACTOR
NO LENS	1.15
CGL	1.03
SFL	1.00
FGL	0.79
FSFL	0.70
FLSL	0.70
HCL	0.81

### TUNABLE WHITE MULTIPLIER

CCT	5000K-2700K	4000K-1800K
5000K	1.16	-
4000K	1.08	1.14
3500K	1.04	1.07
3000K	1.00	1.00
2700K	0.96	0.92
2400K	-	0.84
1800K	-	0.69

### UNIFIED GLARE RATING

10° OPTIC FIELD REDUCER KIT	20° OPTIC SOFT FOCUS LENS	25° OPTIC SOFT FOCUS LENS	40° OPTIC SOFT FOCUS LENS	60° OPTIC SOFT FOCUS LENS
<13	<13	<13	<13	<13

## WARM DIM PERFORMANCE - 20° OPTIC - SOFT FOCUS LENS

### INCANDESCENT PROFILE

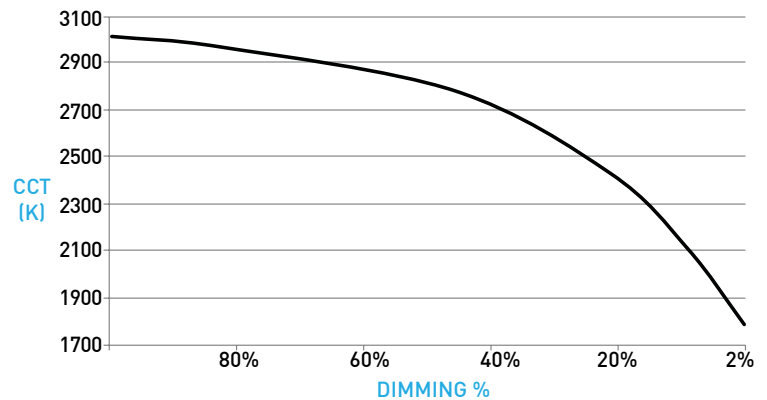
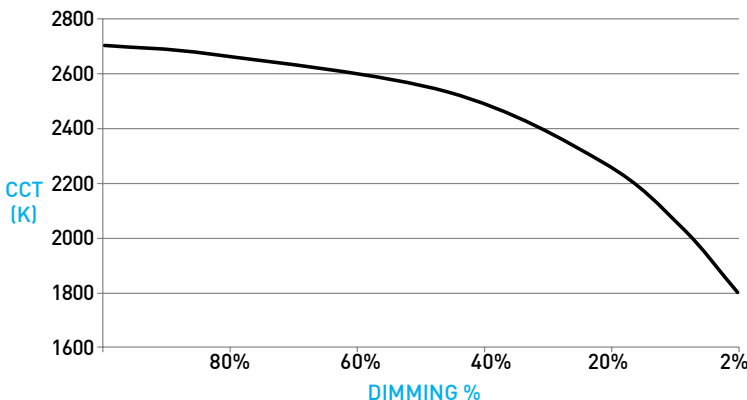
90W15AL 2700K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	2700	2650	2625	2550	2200	1900	1800
Light Output (Lm)	656	525	459	328	131	66	13
Power (W)	11	9	8	6	2.2	1.1	0.2
Efficacy (LPW)	59	59	59	59	59	59	59

### STANDARD PROFILE

90W15AD 3000K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	3000	2950	2920	2775	2375	2000	1800
Light Output (Lm)	645	516	452	323	129	65	13
Power (W)	11	9	8	6	2.2	1.1	0.2
Efficacy (LPW)	58	58	58	58	58	58	58

90W15AL 2700K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	2700	2650	2625	2550	2200	1900	1800
Light Output (Lm)	917	734	642	459	184	92	18
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	64	64	64	64	64	64	64

90W15AD 3000K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	3000	2950	2920	2775	2375	2000	1800
Light Output (Lm)	904	723	632	457	180	90	18
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	65	65	65	65	65	65	65



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## DOWNLIGHT

Hot-aim adjustment from below up to 45° tilt and 357° rotation, faceplate conceals adjustment mechanisms, ensuring fixture aim integrity is maintained

### A ADJUSTABLE YOKE

Adjustable yoke allows for quick exchange of optics and media. Accommodates up to 2 media; add 0.16" to fixture height with use of each media.

### B OPTICS

Robust light engine with optimized optic pairing integrates Reflection, Refraction, and TIR offering 10°, 15°, 20°, 25°, 40° & 60° beams. 10° field reducer included with 10° optic.

### C TILT GUIDE

Features adjustment angles and allows for pre-aiming prior to insertion of fixture.

### D MEDIA

Soft Focus Lens standard; media must be specified. Lens is sealed in Wet location fixture. Secondary media available.

### E TRIM PLATE

Features removable faceplate providing access to adjustment mechanisms. Rare Earth magnets secure faceplate firmly to trim mechanism and do not degrade over time.

- Dry / Damp Location: Thickness measures 0.06".
- Wet Location: Sealed aperture and integral silicone gasket. 0.17" (4.3mm) return, installed as flange overlay only.

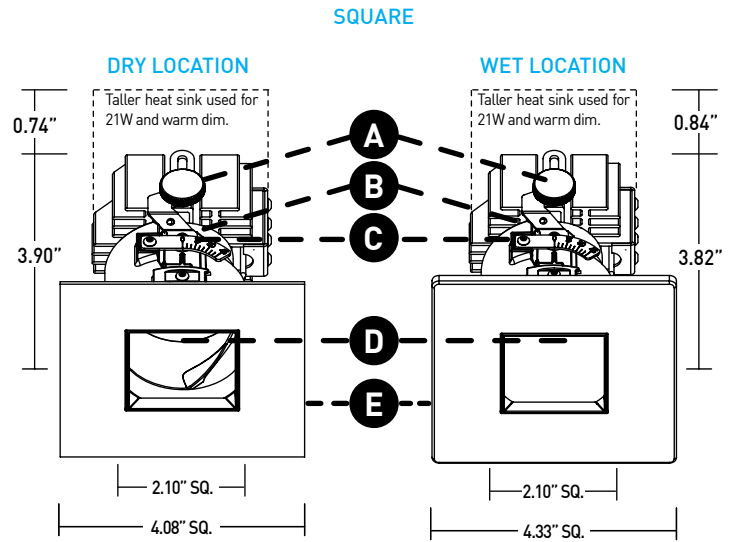
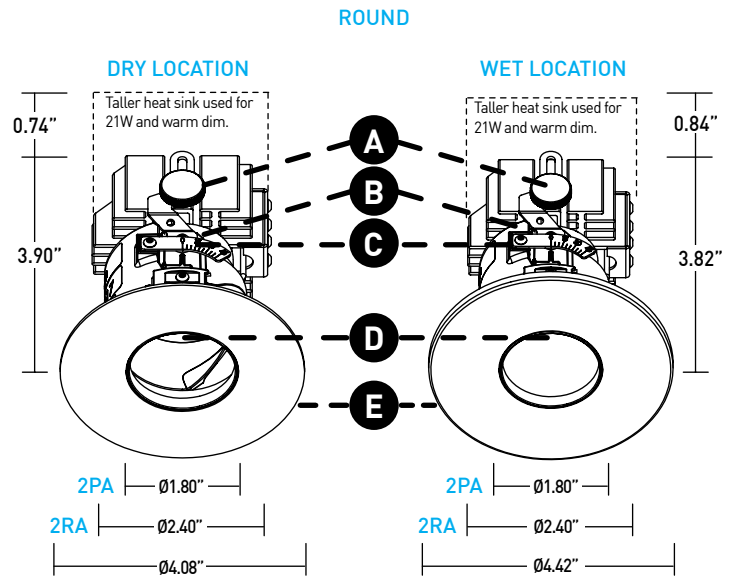
### F DOWNLIGHT TRIM ADAPTER

Included with fixture and required for installation. Provides required alignment with trim, ensuring fixture aim integrity is maintained. Uses (2) #6-32 flat-head screws with varying lengths to accommodate ceiling depth. Installed after ceiling is complete.

### F1 RETENTION

Integral ball plungers correspond to trim adapter ensuring snug fit against finished ceiling.

## DIMENSIONS / DRAWINGS



## TILT CHART

Chart references abbreviated ceiling thickness and use of 1 media.

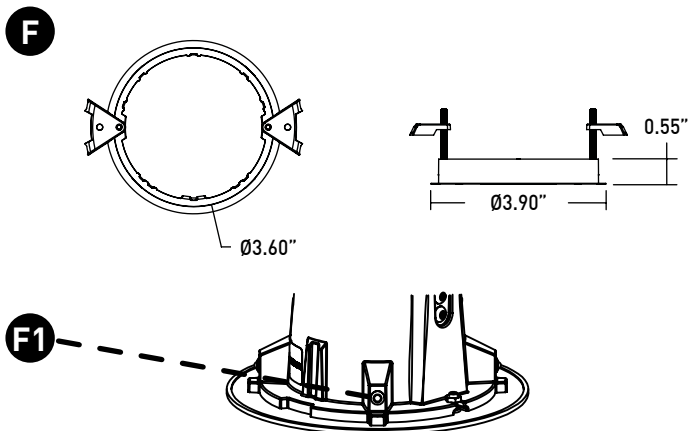
### HOUSING

CEILING THICKNESS	≤ 0.75" (19mm)	≤ 1.25" (32mm)	≤ 2.00" (50mm)	≤ 2.25" (57mm)	≤ 3.00" (76mm)
	"-1" collar	"-2" collar	"-3" collar	"-4" collar	"-4" collar
Low Flux	45°	30°	10°	5°	4°
High Flux	45°	35°	13°	5°	4°

### REMODEL

CEILING THICKNESS	≤ 0.50" (13mm)	≤ 0.75" (19mm)	≤ 1.00" (25mm)	≤ 1.25" (32mm)
	"-0" collar	"-1" collar	"-2" collar	"-2" collar
Low Flux	45°	45°	45°	38°
High Flux	45°	45°	45°	45°

CEILING THICKNESS	≤ 1.50" (38mm)	≤ 2.00" (51mm)	≤ 2.50" (70mm)	≤ 3.00" (76mm)
	"-3" collar	"-3" collar	"-4" collar	"-4" collar
Low Flux	32°	18°	8°	6°
High Flux	38°	25°	13°	6°



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## HOUSING

- G LOW FLUX NO INSULATION CONTACT (NON-IC) HOUSING**
- Included with NC and NR Low Flux wattage packages.
  - Minimum 0.50" setback from combustible and non-combustible materials on all sides and top of housing.
  - Minimum 3.00" setback from insulation material having max R-Value 30 on all sides and top of housing.
  - Minimum 6.00" setback from polycell spray foam insulation having max R-Value 60.
- LOW FLUX INSULATION CONTACT (IC) HOUSING**
- Included with IC, IR, AT, and AR LOW Flux wattage packages.
  - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.
- H HIGH FLUX / WARM DIM HOUSING**
- Satisfies IC, Airtight and NON-IC configurations.
  - Included with all HIGH Flux and Warm Dim wattage packages.
  - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.

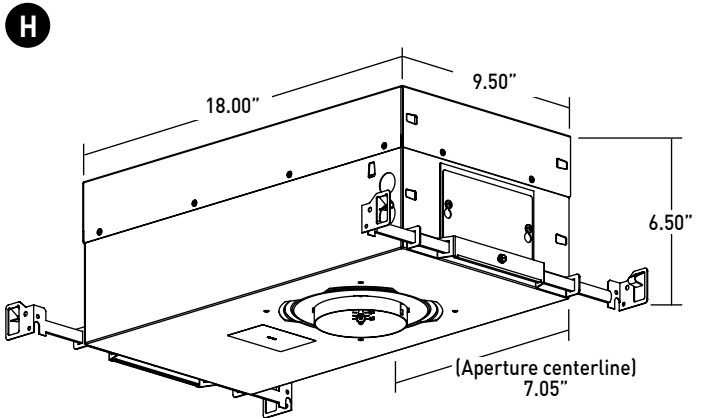
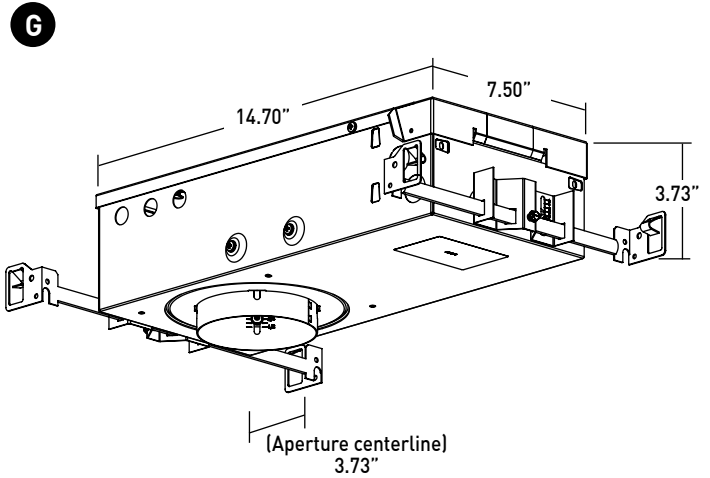
## HOUSING MOUNTING NOTES

- AT and AR install types are required for CCEA, Airtight and Title 24 (JA8) applications.
- Do not install in environments where ambient temperatures exceed 40°C (104°F).
- Power supply compartment and all splice connections may be serviced from room side.
- Consult factory for spacing requirements for any installations exceeding R-Value 60.
- Hanger bars fitted to short and long side of Low Flux Housing, and short side only of High Flux/Warm Dim Housing; extend from 14.0" to 24.0", but may be field cut to accommodate narrow stud spacing. Can be extended up to 46" maximum with 2S-HBE-46 kit.
- Hanger bars and brackets add 4.00" to the overall dimension, but are exclusive of the setback requirements.
- Driver assembly ships with trim, not housing. Housing and trim feature push nuts and lever nuts for ease of installation.

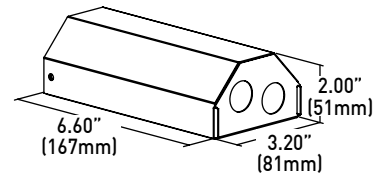
## REMOTE POWER SUPPLY

- I** Provided with install types "IR", "NR" and "AR". See page 7 for maximum allowable wiring distances. Must be installed in an accessible location.
- J ATHENA / CASAMBI CONTROL**  
Controls integrated into housing or remote driver assembly. All equipment is serviceable.
- Athena Model Numbers: A-WN-D01-RF-BL & DFC-OEM-DBI
- Casambi Model Number: BT-S1E1-5400
- K ATHENA / CASAMBI EM SHUNT**  
Included with drivers specified as ASR, ADR, CSR, or CDR. One required for each wireless EM fixture, requires class 2 control wiring between fixture and shunt. Features integrated test switch.
- Model Number: PS-RMT-SHUNT

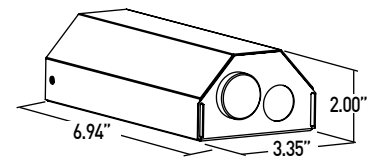
## DIMENSIONS / DRAWINGS



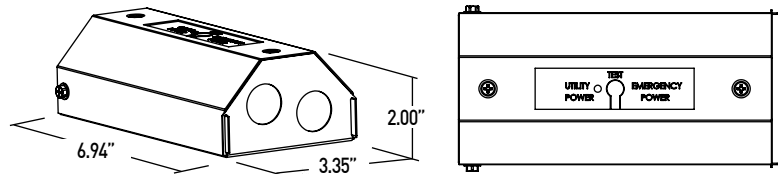
**I** **STANDARD ENCLOSURE**



**J** **ATHENA / CASAMBI ENCLOSURE**



**K** **ATHENA / CASAMBI EM SHUNT**



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## REMODEL POWER SUPPLY

- L REMODEL POWER SUPPLY**
- Included with RM Install Type.
  - UL2043 listed for air-handling plenum.
  - Fixture mounts without conventional housing using supplied downlight trim adapter.
  - Minimum 0.75" clearance from top of fixture.
  - Minimum setback from combustible and non-combustible materials of 6.63" radius from fixture centerline.
  - Minimum 3.00" setback from surfaces of power supply / junction box if not situated within above noted radius from fixture centerline.
  - Minimum additional 3.00" setback from insulation material with max R-Value 30 from any surface of downlight fixture assembly.
  - Minimum additional 6.00" setback from polycell spray foam insulation with max R-Value 60 from any surface of downlight fixture assembly.

## REMODEL NOTES

- Do not install in environments where ambient temperatures exceed 40°C (104°F).
- Power supply compartment and all splice connections may be serviced from room side.
- Consult factory for spacing requirements for any installations exceeding R-Value 60.

## M REMOTE APPLICATIONS

- Remote power supply included with RR Install Type.
- Must be installed in an accessible dry/damp location.
- Do not install in environments where ambient temperatures exceed 40°C (104°F)
- Requires plenum rated Class 2 cable between fixture and remote driver. Cable supplied by others.
- See page 7 for maximum allowable wiring distances.

## ZERO-SIGHTLINE INSTALLATIONS

Fixture regresses flush with the finished ceiling plane when installed according to manufacturer instructions and finished ceiling conditions are met. Consult 2-Series Installation Guidelines for appropriate ceiling cutouts and instructions for proper Zero-Sightline installations.

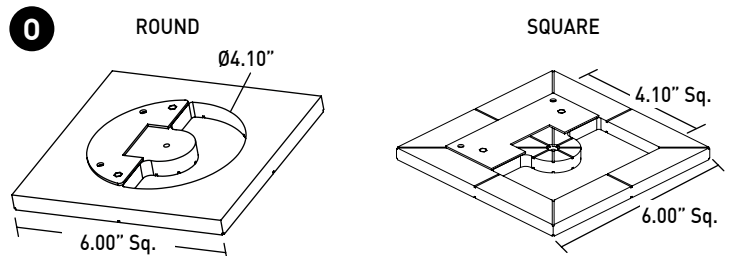
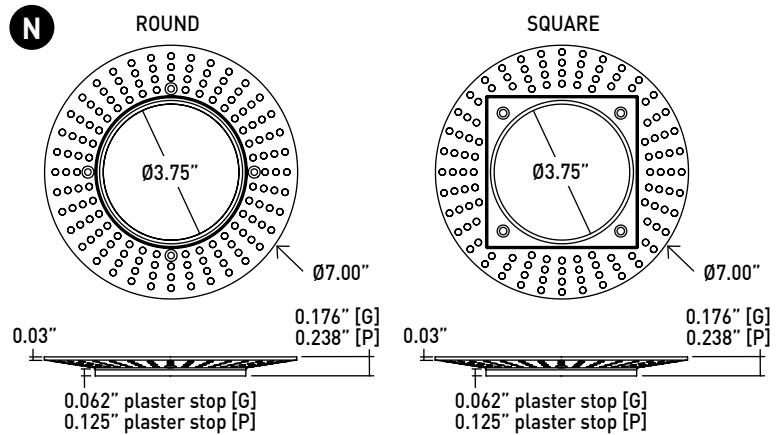
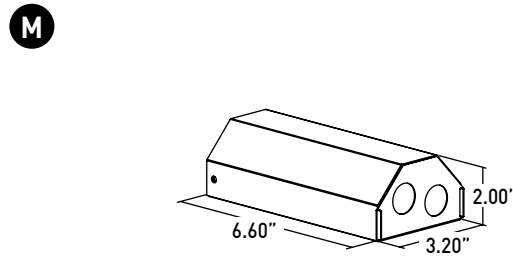
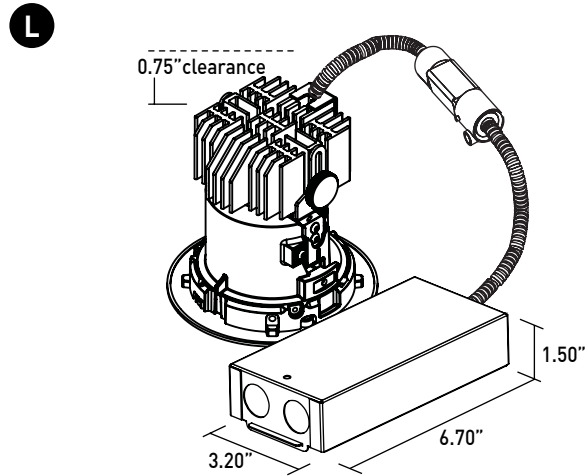
## N APPLIQUÉ

- Specified on Flange Configuration and ships with housing; ships separately on remodel installations.
- For use in sheetrock ceiling applications.
  - 1/16" Appliqué (G Flange Configuration) recommended for gypsum ceiling installations and has plaster stop thickness of 1/16". Recommended for painted ceiling applications.
  - 1/8" Appliqué (P Flange Configuration) offers double thick plaster stop of 1/8" where a heavier application of mud is preferred. Recommended for colorfast and venetian plaster applications.
- Not recommended for stucco applications.

## O ROUTER TOOL GUIDE

- Specified separately and used with Flange Overlay configurations.
- For use in wood ceiling applications.
- **DLA-RTG-2S-RD** or **DLA-RTG-2S-SQ** required for wood Zero-Sightline ceiling installations.
- Router tool guide is reusable and suitable for multiple fixtures.

## DIMENSIONS / DRAWINGS



# 2 SERIES LED ADJUSTABLE

## TECHNICAL INFORMATION

### CONSTRUCTION

**Downlight:** Steel and aluminum; extruded aluminum heat-sink; painted finishes are granulated powder coat. 304 corrosion resistant stainless steel faceplate for wet location fixtures.

**Trim Adapter:** High-impact composite and stainless steel.

**Housing:** 22 Gauge galvanized steel.

**Appliqué:** Zinc alloy.

### STATIC WHITE LED

2-step MacAdam ellipse LED module available in 80+, 90+ and 97+ CRI configurations in color temperatures of 2700K, 3000K, 3500K and 4000K. 3-step MacAdam ellipse LED module available in 90+ configuration in color temperature of 2400K. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.

### WARM DIM LED

3-step MacAdam ellipse warm dim LED module available in 90+ CRI configuration. 3000K or 2700K at full brightness, warming to 1800K at full dim. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.

### TUNABLE WHITE LED

3-step MacAdam ellipse tunable white LED module available in 90+ CRI configuration. Features tuning range of 2700K to 5000K and 1800K to 4000K. Average rated lamp life of 50,000 hours. Driver assemblies are field-replaceable.

### POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

Power Supply	PHASE		ECO		0-10V						DALI-2			ATHENA	CASAMBI
	L23	TR2	LH1	LP1	EA2	LA2	AN4	LN2	DG1	DN1	ED1	LD1	DD1	AS1/AD1	CS1/CD1
Minimum °C	0 °C	-20 °C	0 °C	0 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	0 °C	-20 °C
Maximum °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Dimming %	1.0%	2.0%	1.0%	0.1%	0.1%	0.1%	1.0%	1.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Note: For EA2, LA2 and L23 drivers consult chart on page 8 to confirm appropriate dimming curve for compatibility with selected control.

### MAXIMUM ALLOWABLE REMOTE DRIVER WIRING DISTANCES

DRIVER	WIRE AWG				
	12	14	16	18	20
TR2, AN4, LN2	285'	180'	113'	71'	45'
L23, LH1, LP1	60'	40'	25'	15'	-
EA2, LA2, ED1, LD1, DG1, DN1, DD1, AS1, AD1, CS1, CD1	-	-	118'	72'	46'

### WEIGHT

Trim - 2.2 lbs max

Low Flux Housing - 4.2 lbs

High Flux / Warm Dim Housing - 7.4 lbs

Remote / Remodel Driver - 1.4 lbs

### LISTING

cTUVus listed to UL1598 standard for Dry / Damp and Wet locations.

CCEA, Airtight and Title 24 JA8-2022 Listed.

NEMA 410 Compliant.

### DECLARE

LBC Red List Approved.

### LIMITED WARRANTY

Manufacturer's Limited Warranty guarantees product(s) listed to be free from defects in material and workmanship under normal use and service for 1-year. LED and power supplies are warranted to operate with 70% of original flux and remain within a range of 3 duv for a period of 5-years.

10-year Lutron Advantage limited warranty available on Lutron equipped systems. Warranty period begins from the date of shipment by Seller.

Consult website for full warranty terms and conditions.

### CHANGE LOG

- 04/06/2022: REMOVED REMOTE REMODEL ACCESSORY KIT DLA2-RMT-AK.
- 10/17/2022: REMOVED 90WA12H 3200K-1800K WARM DIM AND ADDED 90WA12H 3000K-1800K WARM DIM.
- 11/28/2022: REMODEL FIXTURES UPDATED WITH METAL CLASP CONNECTORS.
- 04/26/2023: ADDED DECLARE LBC RED LIST APPROVED.
- 08/08/2023: UPDATED WITH NEW LED AND OPTIC SYSTEM.
- 01/11/2024: ADDED ATHENA AND CASAMBI CONTROL OFFERING. ADDED 2400K OFFERING. ADDED LOW WATTAGE PACKAGES FOR LOW FLUX STATIC WHITE AND WARM DIM.
- 02/07/2024: ADDED TUNABLE WHITE OFFERING.
- 3/15/2024: ADDED 10 DEGREE FIELD REDUCER, UPDATED 10 DEGREE PERFORMANCE DATA
- 05/13/2024: UPDATED LH1 WATTAGE MINIMUM



# 2 SERIES LED ADJUSTABLE

## DIMMING COMPATIBILITY

### PHILIPS DRIVER COMPATIBILITY

Power supply <b>TR2</b> Manufacturer	Family/Model #
Lutron Electronics	DV-600P
Lutron Electronics	DVELV-303P
Lutron Electronics	NTELV-600
Lutron Electronics	MAELV-600
Lutron Electronics	SELV-300P
Lutron Electronics	DVLV-600P
Lutron Electronics	NFTU-5A
Lutron Electronics	CTCL-153P
Lutron Electronics	GL-600H
Lutron Electronics	S-600P
Lutron Electronics	PHPM
Power supply <b>AN4</b> Manufacturer	Family/Model #
Lutron Electronics	DVTV plus PP-DV
Lutron Electronics	DVSCV plus PP-DV
Lutron Electronics	DVSTV
Lutron Electronics	DVSCSTV
Lutron Electronics	QSGRJ-XP plus GRX-TVI
Lutron Electronics	QSGRJ-XE plus GRX-TVI
Lutron Electronics	QSGR-XE plus GRX-TVI
Lutron Electronics	NFTV plus PP-DV
Lutron Electronics	NTSTV
Lutron Electronics	RMJ-5T
Lutron Electronics	RMJS-8T
Lutron Electronics	FCJS-010
Leviton	IlumaTch IP7 series
Philips	Sunrise - SR1200ZTUNV

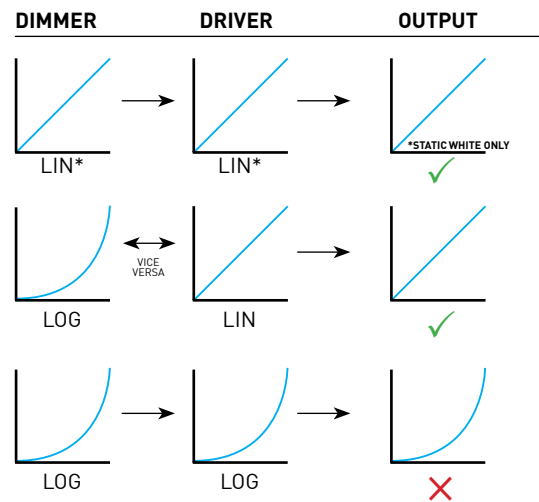
### LUTRON DRIVER COMPATIBILITY

Power supply <b>L23</b> Lutron Product Family	Part No.
Maestro WirelessR 600 W dimmer	MRF2-6ND-120-
Maestro WirelessR 1000 W dimmer	MRF2-10ND-120-
Caséta® Wireless Pro 1000 W dimmer	PD-10NXD-
GRAFIK T™ CL® dimmer	GT-250M-GTJ-250M-
HomeWorks® QS adaptive dimmer	HQRD-6NA-
HomeWorks® QS 600 W dimmer	HQRD-6ND-
HomeWorks® QS 1000 W dimmer	HQRD-10ND-
RadioRA® 2 adaptive dimmer	RRD-6NA-
RadioRA® 2 1000 W dimmer	RRD-10ND
myRoom™ DIN power module	MQSE-4A1-D
HomeWorks® QS DIN power module	LQSE-4A1-D
HomeWorks® QS wallbox power module	HQRJ-WPM-6D-120
HomeWorks® wallbox power module	HWI-WPM-6D-120
GRAFIK Eye® QS control unit	QSGR-, QSGRJ-
GRAFIK Eye® 3000 control unit	GRX-3100-GRX-3500-
RPM-4U module (LCP, HomeWorks® QS, GRAFIK Systems™, Quantum®)	HW-RPM-4U-120 LP-RPM-4U-120
RPM-4A module (LCP, HomeWorks® QS, GRAFIK Systems™, Quantum®)	HW-RPM-4A-120, LP-RPM-4A-120
GP dimming panels	Various
Ariadni CL 250W dimmer	AYCL-253P-
Diva CL 250W dimmer	DVCL-253P-DCSCCL-253P-
Nova T CL 250W dimmer	NTCL-250-
Power supply <b>LH1 / LP1</b> Lutron Product Family	Part No.
PowPak Dimming Modules	RMJ-ECO32-DV-B
PowPak Dimming Modules	FCJ/FCJS-ECO
Energi Savr Nodes	QSN-1ECO-S
GRAFIK Eye QS control unit	QSN-2ECO-S
Homeworks QS control unit	QSGRJ- _E (wireless) QSGR- _E
Quantum Hub	QP2-__ 2C
Quantum Hub	QP2-__ 4C
Quantum Hub	QP2-__ 6C
Quantum Hub	QP2-__ 8C
Homeworks QS power module	LQSE-2ECO-D
myRoom Plus power module	

### eldoLED DRIVER COMPATIBILITY

Power supply <b>EA2/LA2</b> Manufacturer	Family/Model #
Busch-Jaeger	2112U-101
Jung	240-10
Leviton Lighting Controls	IP710-DLX
Lightolier Controls	ZP600FAM120
Merten	5729
Pass & Seymour	CD4FB-W
The Watt Stopper	DCLV1
Synergy	ISD BC
Crestron®	GLX-DIMFLV8
Crestron®	GLXP-DIMFLV8
Crestron®	GLPAC-DIMFLV4-*
Crestron®	GLPAC-DIMFLV8-*
Crestron®	GLPP-DIMFLVEX-PM
Crestron®	GLPP-1DIMFLV2EX-PM
Crestron®	GLPP-1DIMFLV3EX-PM
Crestron®	DIN-A08
Crestron®	DIN-4DIMFLV4
Crestron®	CLS-EXP-DIMFLV
Crestron®	CLCI-1DIMFLV2EX
Power supply <b>EA2/LA2</b> Manufacturer	Family/Model #
Lutron Electronics	Nova T® - NTFTV
Lutron Electronics	Diva® - DVTV
Lutron Electronics	Nova® - NFTV
Lutron Electronics	GrafixEye® GRX-TVI w GRX3503
Lutron Electronics	Energy Savr Node™ - QSN-4T16-S
Lutron Electronics	TVM2 Module
Sensor Switch	nIO EZ
ABB	SD/S 2.16.1

### ANALOG DRIVERS AND DIMMERS



LIN = LINEAR  
 LOG = LOGARITHMIC  
 \*LIN-TO-LIN NOT COMPATIBLE FOR WARM-DIM

