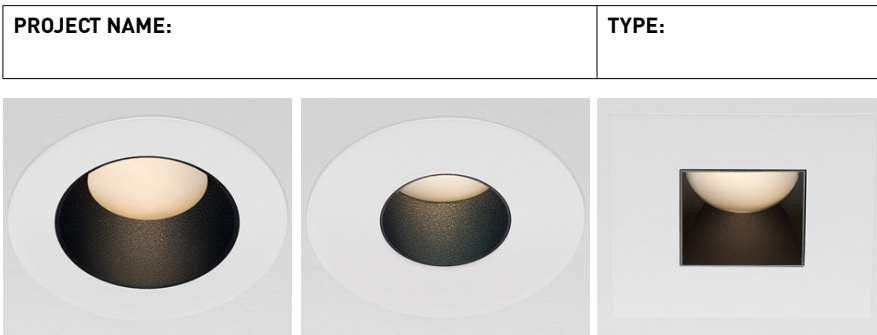


2 SERIES LED DEEP REGRESS

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



ORDERING INFORMATION



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



JA8-2022 INDICATED BY SHADING

[illegible]

PART NUMBER NOTES

- Trims ships as e.g., 2RD1-WH-80S15A2-2HB1-L2304
- Housing ships as e.g., NCL-2RF-1-LED-01
- Drivers ship with trim
- Appliqué ships with housing



Declare.

2 SERIES LED DEEP REGRESS

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
- ☐ **FSL-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.

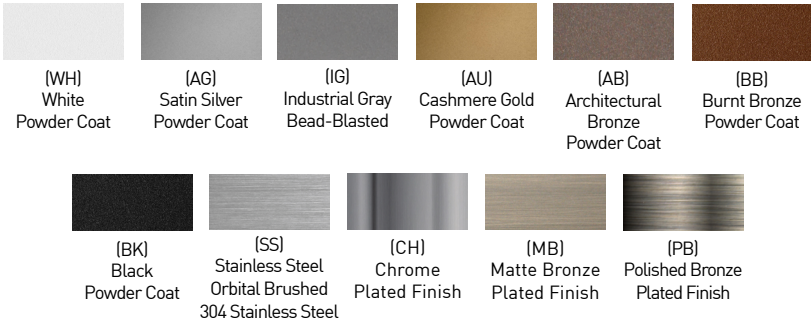
- ☐ **TOOL-HEX-050**

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™



2 SERIES LED DEEP REGRESS

PERFORMANCE - 3000K

CRI / WATTAGE PACKAGE	WATTAGE	DEEP REGRESS - 20° OPTIC - SOFT FOCUS LENS					
		2RD		2PD		2SD	
		DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW
80S06A	6	677	112	615	102	677	112
80S11A	11	1109	101	998	91	1109	101
80S15A	15	1486	99	1349	90	1486	99
80S21A	21	2025	96	1828	87	2025	96
90S06A	6	584	97	530	88	584	97
90S11A	11	956	87	860	78	956	87
90S15A	15	1281	85	1163	77	1281	85
90S21A	21	1746	83	1576	75	1746	83
97S06A	6	514	85	466	77	514	85
97S11A	11	841	76	757	69	841	76
97S15A	15	1127	75	1023	68	1127	75
97S21A	21	1536	73	1387	66	1536	73
90W11AWL (2700K-1800K)	11	654	59	613	55	654	59
90W11AWD (3000K-1800K)	11	673	61	628	57	673	61
90W15AWL (2700K-1800K)	15	915	61	857	57	915	61
90W15AWD (3000K-1800K)	15	943	63	879	59	943	63
90T17ATR (4000K-1800K)	17	1222	57	1052	62	1222	57
90T17ATH (5000K-2700K)	17	1058	54	1043	62	1058	54

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CRI / WATTAGE PACKAGE	WATTAGE	DEEP REGRESS - 10° OPTIC - NO LENS					
		2RD		2PD		2SD	
		DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW
80S15C	15	984	66	929	62	982	65
90S15C	15	848	57	801	53	846	56
97S15C	15	732	49	691	46	730	49

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	1.08
CGL	1.02
SFL	1.00
FGL	0.85
FSFL	0.76
FLSL	0.73
HCL	0.74

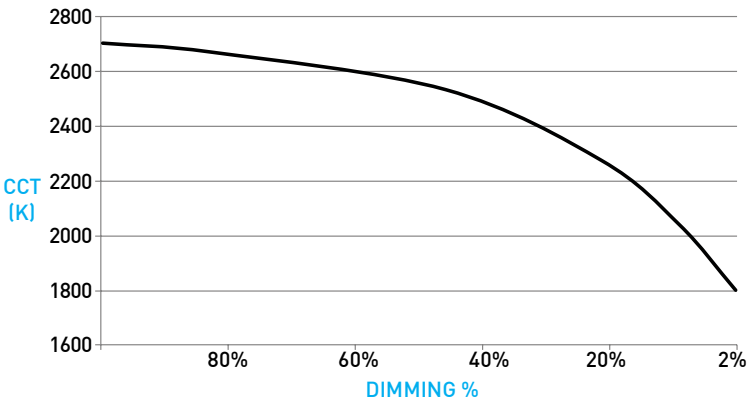
TUNABLE WHITE MULTIPLIER		
CCT	5000K-2700K	4000K-1800K
5000K	1.16	-
4000K	1.08	1.14
3500K	1.04	1.07
3000K	1.00	1.00
2700K	0.96	0.92
2400K	-	0.84
1800K	-	0.69

UNIFIED GLARE RATING

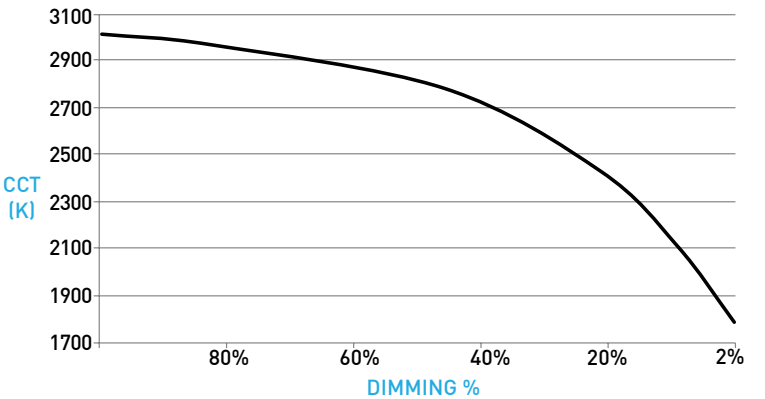
10° OPTIC NO LENS	20° OPTIC SOFT FOCUS LENS	25° OPTIC SOFT FOCUS LENS	40° OPTIC SOFT FOCUS LENS	60° OPTIC SOFT FOCUS LENS
<13	<13	<13	<13	<13

WARM DIM PERFORMANCE - 20° OPTIC - SOFT FOCUS LENS

INCANDESCENT PROFILE							
90W11AL 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)	654	523	458	327	131	65	13
Power (W)	11	9	8	6	2.2	1.1	.2
Efficacy (LPW)	59	59	59	59	59	59	59
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)	915	732	641	458	184	92	19
Power (W)	15	12	11	8	3	1.5	0.3
Efficacy (LPW)	61	61	61	61	61	61	61



HALOGEN PROFILE							
90W11AD 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)	673	538	471	337	135	67	13
Power (W)	11	9	8	6	2.2	1.1	.2
Efficacy (LPW)	61	61	61	61	61	61	61
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)	943	754	660	472	187	94	19
Power (W)	15	12	11	8	3	1.5	0.3
Efficacy (LPW)	62	62	62	62	62	62	62



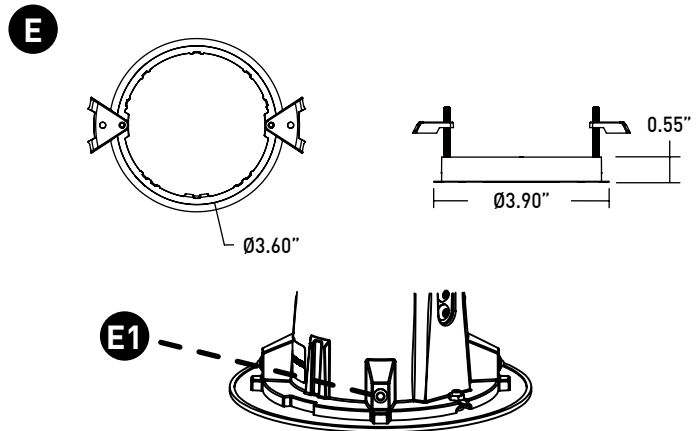
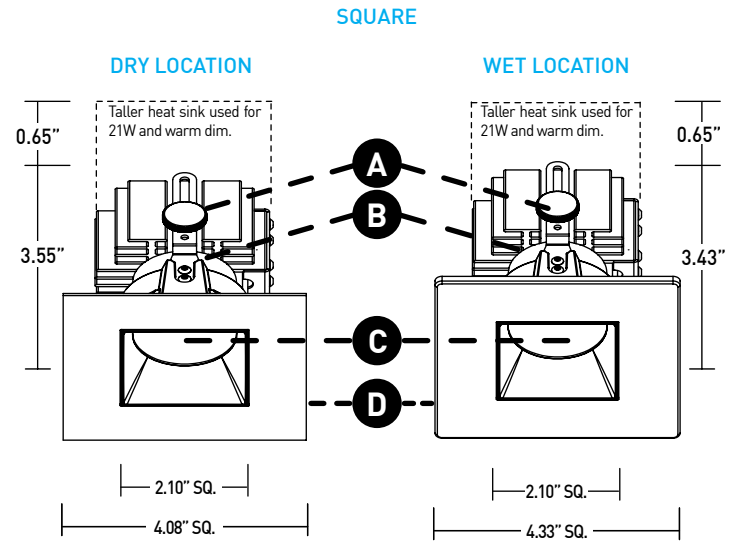
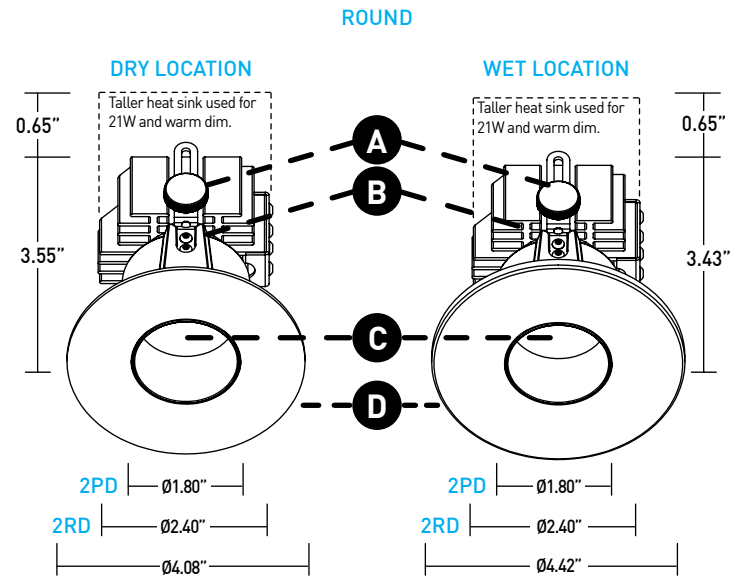
2 SERIES LED DEEP REGRESS

DOWNLIGHT

Die-cast deep baffle minimizes aperture glare and conceals view into housing; black finish standard.

- 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.
- C MEDIA**
Soft Focus Lens standard; media must be specified. Lens is sealed in place on Wet location fixture. Secondary media available.
- D TRIM PLATE**
Wet location features integral silicone gasket.
 - Dry / Damp Location: Thickness measures 0.065".
 - Wet Location: 0.15" return, installed as flange overlay only.
- E 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.
- E1 RETENTION**
Integral ball plungers correspond to trim adapter ensuring snug fit against finished ceiling.

DIMENSIONS / DRAWINGS



2 SERIES LED DEEP REGRESS

HOUSING

- F 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.
- G 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.

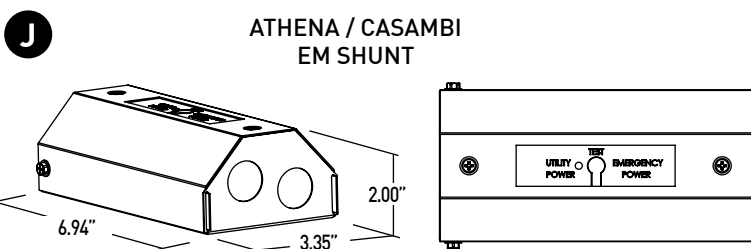
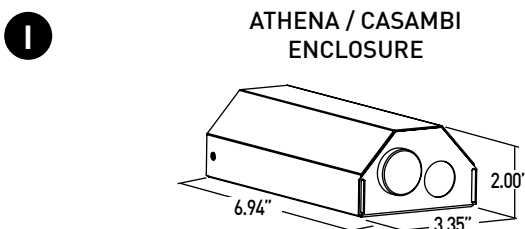
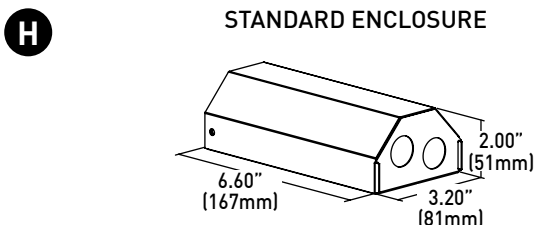
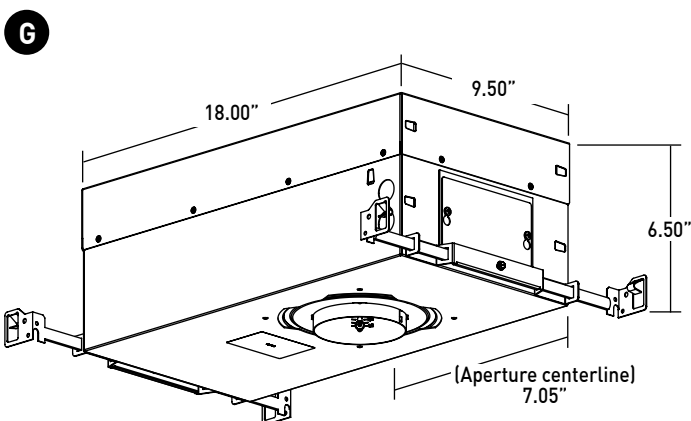
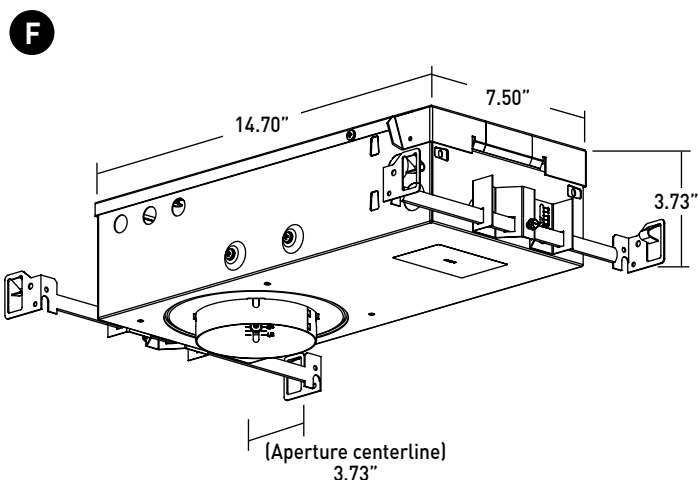
HOUSING MOUNTING NOTES

- 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

- H** Provided with install types "IR", "NR" and "AR". See page 7 for maximum allowable wiring distances. Must be installed in an accessible location.
- I 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
- J 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



2 SERIES LED DEEP REGRESS

REMODEL POWER SUPPLY

- K 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.

L 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.

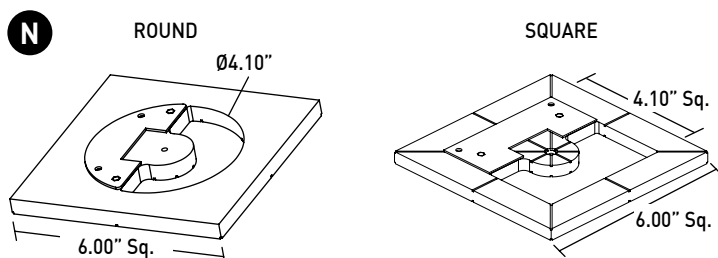
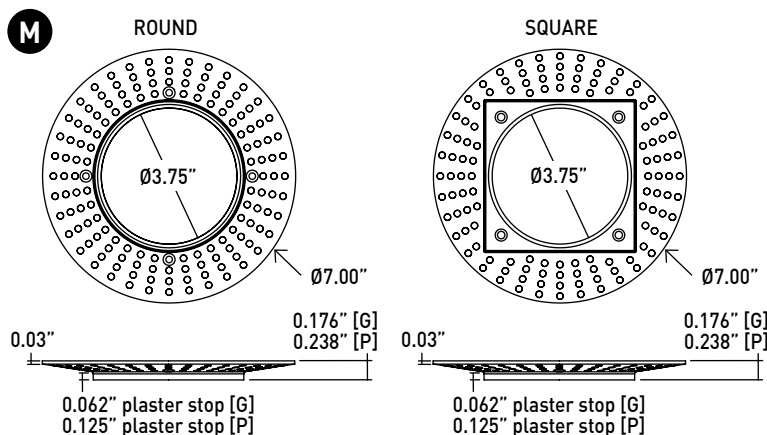
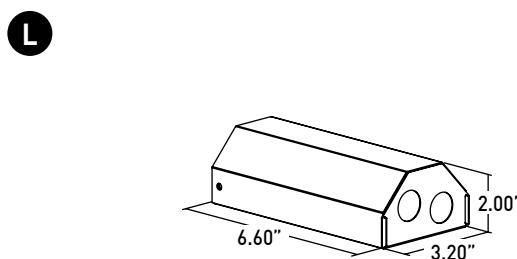
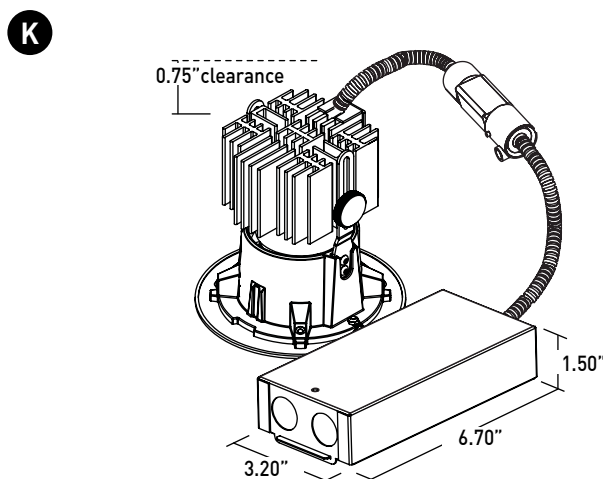
M APPLIQUÉ

- 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.

N 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 DEEP REGRESS

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+ CRI 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'

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.

WEIGHT

Trim - 2 lbs max
Low Flux Housing - 4.2 lbs
High Flux / Warm Dim Housing - 7.4 lbs
Remote / Remodel Driver - 1.4 lbs

LIMITED WARRANTY

Manufacturer's Limited Warranty guarantees product(s) listed to be free from defects in material and workmanship under normal use and service

CHANGE LOG

- 1.04/06/2022: REMOVED REMOTE REMODEL ACCESSORY KIT DLA2-RMT-AK.
- 2.10/17/2022: REMOVED 90WA12H 3200K-1800K WARM DIM AND ADDED 90WA12H 3000K-1800K WARM DIM.
- 3.11/28/2022: REMODEL FIXTURES UPDATED WITH METAL CLASP CONNECTORS.
- 4.04/26/2023: ADDED DECLARE LBC RED LIST APPROVED.
- 5.08/08/2023: UPDATED WITH NEW LED AND OPTIC SYSTEM.
- 6.01/11/2024: ADDED ATHENA AND CASAMBI CONTROL OFFERING. ADDED 2400K OFFERING.
- 7.02/07/2024: ADDED TUNABLE WHITE OFFERING.

2 SERIES LED DEEP REGRESS

DIMMING COMPATIBILITY

PHILIPS DRIVER COMPATIBILITY

Power supply TR2 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 AN4 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	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

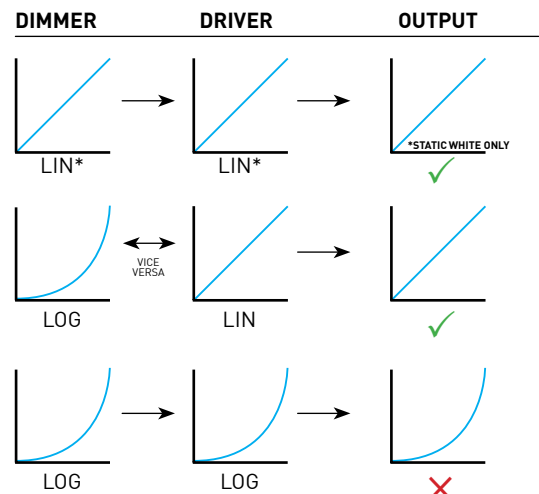
LUTRON DRIVER COMPATIBILITY

Power supply L23 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 LH1 / LP1 Lutron Product Family	Part No.
PowPak Dimming Modules	RMJ-EC032-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 EA2/LA2 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 EA2/LA2 Manufacturer	Family/Model #
Lutron Electronics	Nova T® - NTFTV
Lutron Electronics	Diva® - DVTV
Lutron Electronics	Nova® - NFTV
Lutron Electronics	GrafikEye® 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

