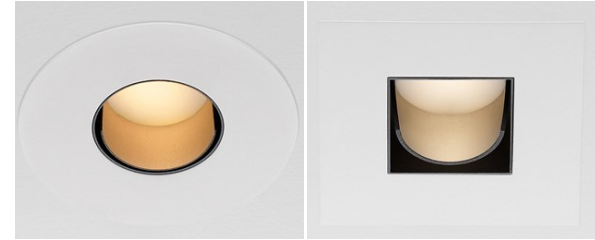


2 SERIES LED WALL GRAZER

Our smallest aperture family of pin-hole fixtures offers high-output illumination for high-drama design statements in discerning residential, retail, and hospitality environments.

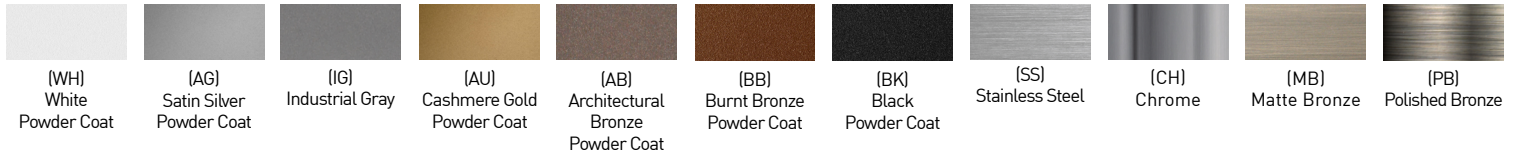
PROJECT NAME:	TYPE:
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ORDERING INFORMATION

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

TRIM	RATING	FLANGE FINISH	LUMEN PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	POWER SUPPLY	EFFECTS DEVICE	FLANGE CONFIGURATION
					WG				GL	
2PG Round Pinhole 2SG Square Expanded	1 Dry/Damp 2 Wet* *(Lens sealed in place)	WH White AG Satin Silver IG Industrial Gray AU Cashmere Gold AB Arch Bronze BB Burnt Bronze BK Black SS Stainless Steel* *(Increased lead time) CH Chrome* *(Increased lead time) MB Matte Bronze* *(Increased lead time) PB Polished Bronze* *(Increased lead time) PR Primer CF Custom* *(Consult Factory)	<p>LOW FLUX STATIC WHITE 3.73" TALL HOUSING</p> <p>80CA12L 80+ CRI, 1200 Source Lumens (Delivered - 2PG 354, 2SG 414)</p> <p>80CA16L 80+ CRI, 1600 Source Lumens (Delivered - 2PG 487, 2SG 570)</p> <p>90CA10L 90+ CRI, 1000 Source Lumens (Delivered - 2PG 304, 2SG 355)</p> <p>90CA14L 90+ CRI, 1400 Source Lumens (Delivered - 2PG 417, 2SG 487)</p> <p>97CA10L 97+ CRI, 1000 Source Lumens (Delivered - 2PG 271, 2SG 316)</p> <p>97CA12L 97+ CRI, 1200 Source Lumens (Delivered - 2PG 371, 2SG 433)</p>	<p>22 2200K* *(Only available with 90+ CRI)</p> <p>27 2700K</p> <p>30 3000K</p> <p>35 3500K</p> <p>40 4000K</p>	WG Wall Grazer Optic	<p>Housing W/Integral Driver (HB)</p> <p>NC NIC </p> <p>IC IC </p> <p>AT IC, Airtight* </p> <p>*(CCEA and Airtight compliant housing)</p> <p>Housing W/Remote Driver (HR)</p> <p>NR NIC, Remote </p> <p>IR IC, Remote </p> <p>AR IC, Airtight, Remote* </p> <p>*(CCEA and Airtight compliant housing)</p> <p>Remodel</p> <p>RM Remodel</p> <p>RR Remote-Remodel</p>	<p>0 0.125" - 0.49"* *(RM, RR Install Types only)</p> <p>1 0.50" - 0.75"</p> <p>2 0.76" - 1.25"</p> <p>3 1.26" - 2.00"</p>	<p>(120V)</p> <p>TR2 Philips, 2% Leading/Trailing/Triac* *(Not available for 80CA12L, 90CA10L, 97CA10L)</p> <p>L23 Lutron, Hi-Lume 1% 2-Wire</p>	<p>GL Wall Grazer Lens</p>	<p>F Flange Overlay (No Applique)</p> <p>G Zero Sightline Gypsum (1/16" Applique)* *(Not available for wet location)</p> <p>P Zero Sightline Plaster (1/8" Applique)* *(Not available for wet location)</p>
			<p>HIGH FLUX STATIC WHITE 6.50" TALL HOUSING</p> <p>80CA23H 80+ CRI, 2300 Source Lumens (Delivered - 2PG 671, 2SG 784)</p> <p>90CA19H 90+ CRI, 1900 Source Lumens (Delivered - 2PG 575, 2SG 672)</p> <p>97CA17H 97+ CRI, 1700 Source Lumens (Delivered - 2PG 512, 2SG 599)</p>	<p>22 2200K* *(Only available with 90+ CRI)</p> <p>27 2700K</p> <p>30 3000K</p> <p>35 3500K</p> <p>40 4000K</p>						
			<p>HIGH FLUX WARM DIM 6.50" TALL HOUSING</p> <p>90WA11H 90+ CRI, 1130 Source Lumens Incandescent Profile (Delivered - 2PG 404, 2SG 448)</p> <p>90WA12H 90+ CRI, 1265 Source Lumens Standard Profile (Delivered - 2PG 454, 2SG 504)</p>	<p>WL 2700K - 1800K</p> <p>WD 3000K - 1800K</p>						
<p>*SEE PAGE 2 FOR DETAILED WARM DIM PROFILE COMPARISON.</p> <p>*ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K.</p>										



PART NUMBER NOTES

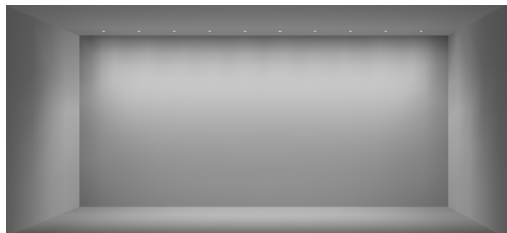
- Trims ships as e.g. 2SG1-WH-80CA16LG-2HB1-L23GL
- Housing ships as e.g. NCL-2RF-1-LED-01
- Drivers ship with trim
- Remote drivers ship with trim as e.g. PS-RMT-80CA16L-1L23
- Appliqué ships with housing



2 SERIES LED WALL GRAZER

WALL GRAZER DESIGN GUIDE

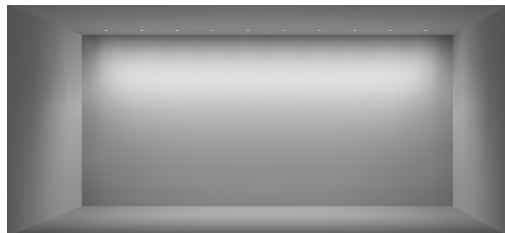
ROUND



18" SETBACK / 24" ON CENTER SPACING

- AVERAGE FC: 7.26
- MIN / MAX: 3.19
- 10FT CEILING SHOWN / 8-12FT IDEAL
- 10 FIXTURES / 22FT WALL SHOWN

SQUARE



18" SETBACK / 24" ON CENTER SPACING

- AVERAGE FC: 9.94
- MIN / MAX: 4.26
- 10FT CEILING SHOWN / 8-12FT IDEAL
- 10 FIXTURES / 22FT WALL SHOWN

ADDITIONAL SPACINGS AND SETBACKS

ROUND		
ON CENTER SPACING	SETBACK	
	16"	18"
22"	AVERAGE FC: 7.57 MIN / MAX: 3.54	AVERAGE FC: 7.28 MIN / MAX: 3.19
24"	AVERAGE FC: 7.57 MIN / MAX: 3.54	SHOWN ABOVE
26"	AVERAGE FC: 7.27 MIN / MAX: 3.29	AVERAGE FC: 7.57 MIN / MAX: 3.68
28"	AVERAGE FC: 6.50 MIN / MAX: 3.86	AVERAGE FC: 6.22 MIN / MAX: 3.54

SQUARE		
ON CENTER SPACING	SETBACK	
	16"	18"
22"	AVERAGE FC: 10.25 MIN / MAX: 4.36	AVERAGE FC: 9.93 MIN / MAX: 4.26
24"	AVERAGE FC: 10.27 MIN / MAX: 4.65	SHOWN ABOVE
26"	AVERAGE FC: 10.24 MIN / MAX: 4.65	AVERAGE FC: 9.94 MIN / MAX: 4.37
28"	AVERAGE FC: 8.84 MIN / MAX: 5.03	AVERAGE FC: 8.55 MIN / MAX: 4.56

***ALL DATA REFLECTS 90CA14L LUMEN PACKAGE**

2 SERIES LED WALL GRAZER

ACCESSORIES

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

REPLACEMENT OPTIC
Interchangeable optics accessible through fixture aperture.
 RO-50-WG-2 Wall Grazer Optic

HANGER BAR EXTENDER KIT
Extends hanger bars from 24.0" to 46.0" maximum.
 2S-HBE-46 Extender, Hanger Bar

EMERGENCY LIGHTING - REMOTE MOUNT ONLY
During disruption of main power, emergency battery inverter provides temporary 120V or 277V to fixture.
 EMB-S-20/25-120/277-LEDX 20/25 watt max capacity, 120 or 277 VAC 60Hz, Non-Dimmable
 EMB-S-100-120-LEDX 100 watt max capacity, 120 VAC 60Hz, Dimmable
 EMB-S-100-277-LEDX 100 watt max capacity, 277 VAC 60Hz, Dimmable
 EMB-S-250-120/277-LEDX 250 watt max capacity, 120 or 277 VAC 60Hz, Dimmable

STATIC WHITE PERFORMANCE - 3000K

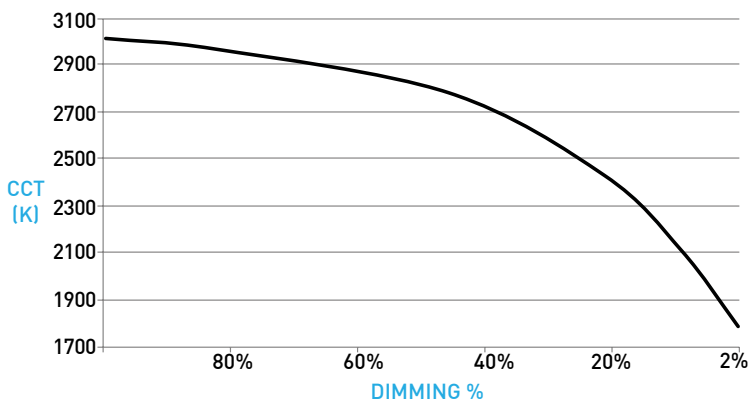
LUMEN PACKAGE	WATTAGE	WALL GRAZER			
		2PG		2SG	
		DELIVERED	LPW	DELIVERED	LPW
80CA12L	10	354	36	414	42
80CA16L	14	487	35	570	41
80CA23H	21	671	32	784	37
90CA10L	10	304	31	355	36
90CA14L	14	417	30	487	35
90CA19H	21	575	27	672	32
97CA10L	10	271	27	316	32
97CA12L	14	371	26	433	31
97CA17H	21	512	24	599	29
90WA11H	14	404	28	448	32
90WA12H	14	454	32	504	36

OUTPUT MULTIPLIER	
CCT	CCT SCALE
2200K	0.800
2700K	0.957
3000K	1.000
3500K	1.019
4000K	1.030

WARM DIM PERFORMANCE

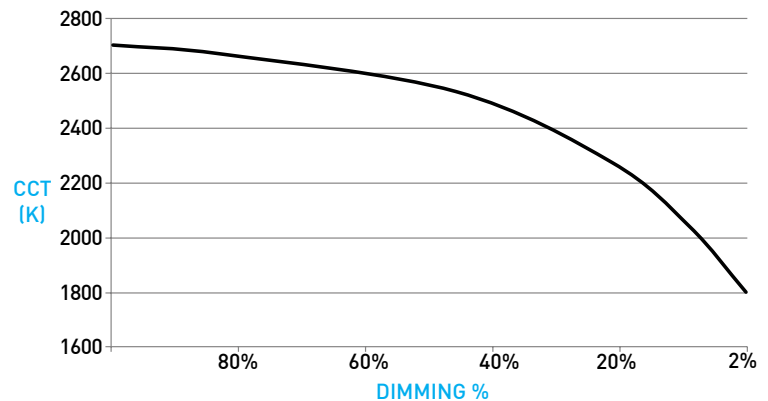
STANDARD DIMMING PROFILE

90WA12H 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)	1265	1012	885	632	253	126	25
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	90	90	90	90	90	90	90



WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

90WA11H 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)	1130	880	770	550	220	110	30
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	80	80	80	80	80	80	80



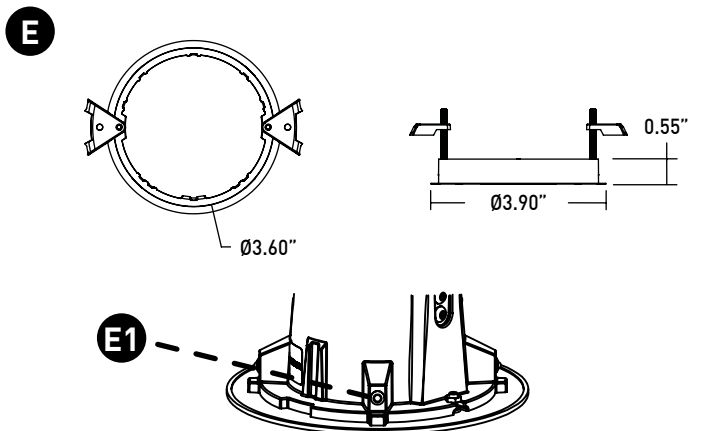
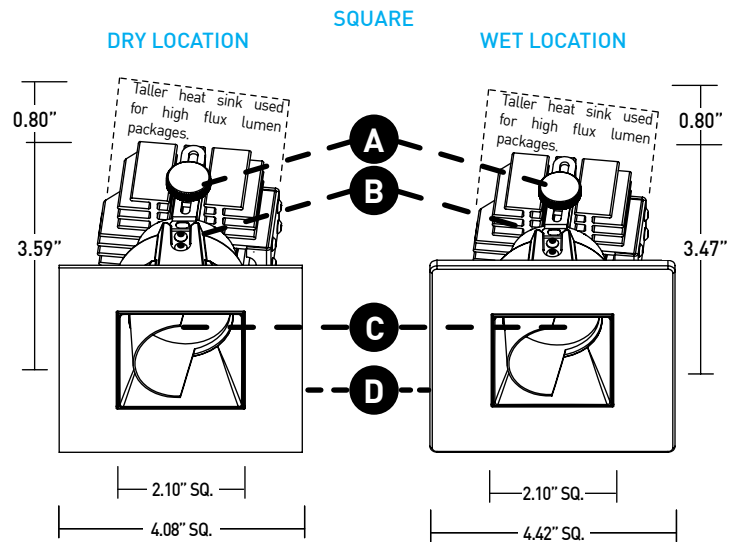
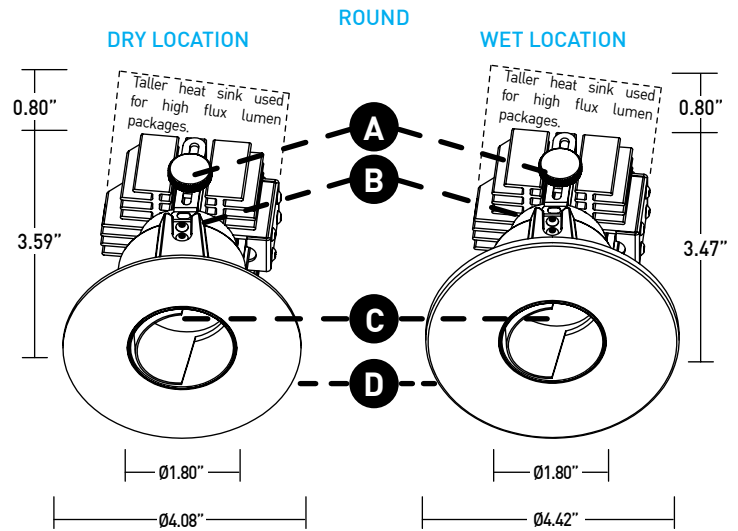
2 SERIES LED WALL GRAZER

DOWNLIGHT

Die-cast baffle and precision kick reflector provide dynamic wall grazing and minimal aperture glare.

- A** **ADJUSTABLE YOKE**
Adjustable yoke allows for quick access to optic and effects device.
- B** **OPTICS**
40° optic for optimal wall grazing.
- C** **EFFECTS DEVICES**
Wall grazer lens included and sealed in place on wet location fixtures
- 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. Uses (2) #6-32 flat-head screws with varying lengths to accommodate ceiling depth. Installed after ceiling is complete. Requires 3.75" diameter cutout for flange overlay applications.
- E1** **RETENTION**
Engineered integral ball plungers correspond to trim adapter ensuring snug fit against finished ceiling.

DIMENSIONS / DRAWINGS



2 SERIES LED WALL GRAZER

HOUSING

- F** **LOW FLUX NO INSULATION CONTACT (NON-IC) HOUSING**
- Included with NC and NR Low Flux lumen 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 lumen packages.
 - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.

- G** **HIGH FLUX HOUSING**
- Satisfies IC, Airtight and NON-IC configurations.
 - Included with all HIGH Flux lumen packages.
 - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.

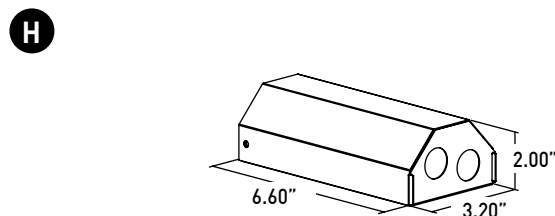
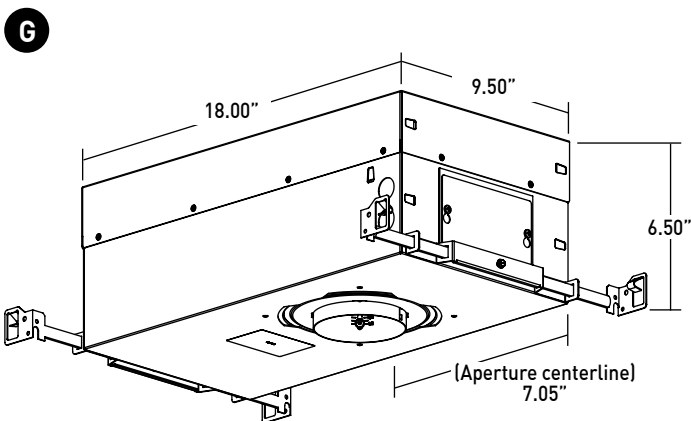
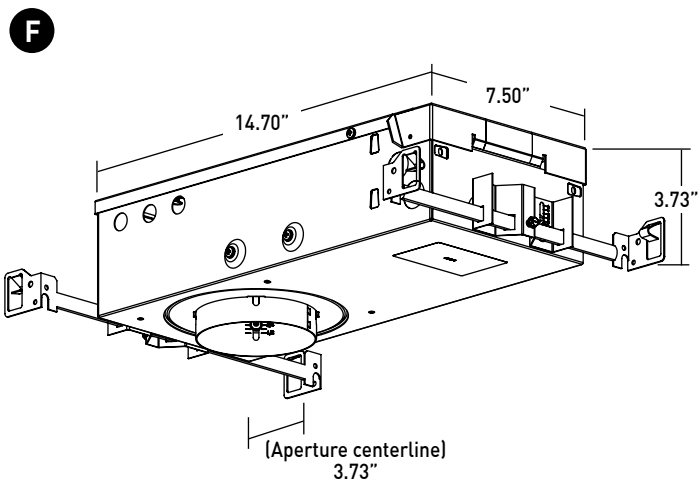
HOUSING MOUNTING NOTES

- AT and AR install types are required for CCEA, and Airtight 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 side of housing, and long side of Low Flux housings; 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 mating quick-connect plugs 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.

DIMENSIONS / DRAWINGS



2 SERIES LED WALL GRAZER

REMODEL POWER SUPPLY

- I 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.
- J REMOTE APPLICATIONS**
- Remote power supply included with RR Install Type.
 - Requires plenum rated Class 2 cable between fixture and remote driver. Cable supplied by others.
 - See page 6 for maximum allowable wiring distances.

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.

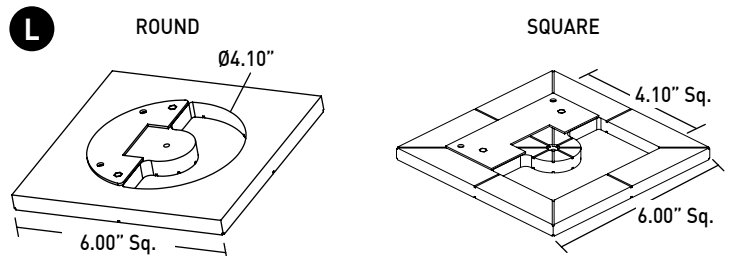
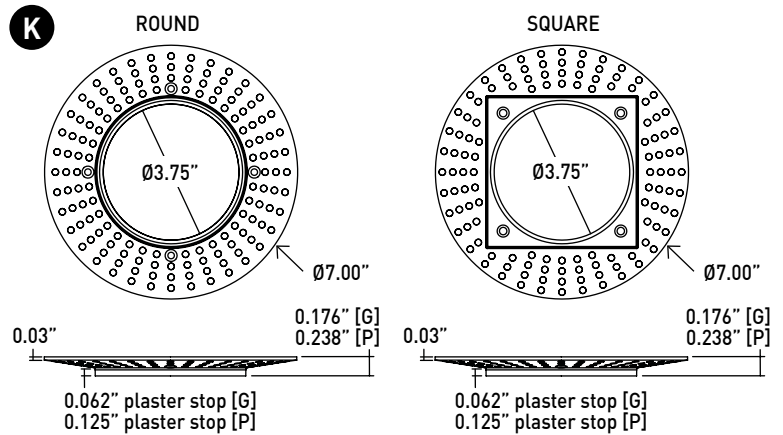
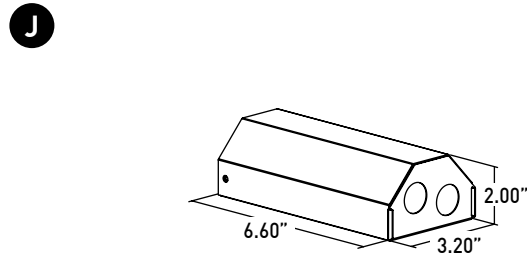
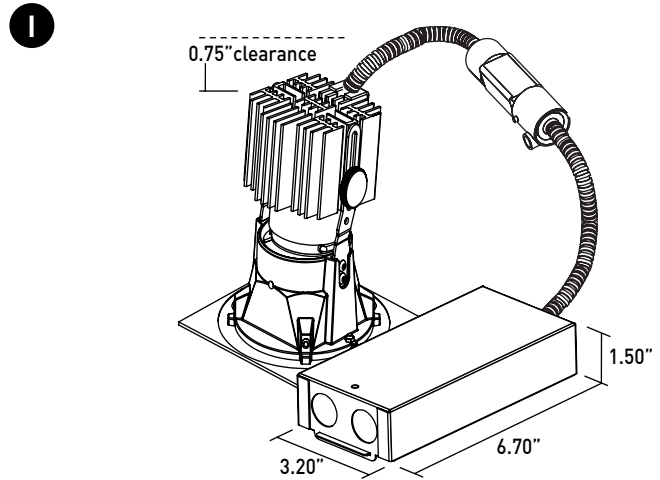
ZERO-SIGHTLINE INSTALLATIONS

Zero-Sightline installations available for Dry / Damp location fixtures only. When installed according to manufacturer's instructions and ceiling conditions are met, fixture is flush with the ceiling plane. Consult 2-Series Installation Guidelines for appropriate ceiling cutouts and instructions for proper Zero-Sightline installations.

- K 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.

- L 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 WALL GRAZER

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.

LED

2-step MacAdam ellipse LED module available in 80+, 90+ and 97+ CRI configurations in color temperatures of 2200K, 2700K, 3000K, 3500K and 4000K. 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.

POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

Power Supply	2 WIRE		ECO		0-10V				DALI	
	L23	TR2	LH1	LP1	EA2	LA2	AN4	LN2	ED1	LD1
Minimum °C	0 °C	-20 °C	0 °C	0 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °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
Dimming %	1.0%	2.0%	1.0%	0.1%	0.1%	0.1%	1.0%	1.0%	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	-	-	118'	72'	46'

SPACING

Recommended fixture spacing is 22" to 28" on center with 16" to 18" setback from wall plane.

LISTING

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

DECLARE

LBC Red List Approved.

FIXTURE WEIGHT

Trim - 2 lbs max

Low Flux Housing - 4.2 lbs

High Flux 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 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 and conditional upon the use of manufacturer-supplied power supply. [Consult website for full warranty terms and conditions.](#)

CHANGE LOG

- 1.01/12/2021: ADDED 2200K, 2700K-1800K WARM DIM AND 10 DEGREE OPTIC OFFERINGS.
- 2.04/06/2022: REMOVED REMOTE REMODEL ACCESSORY KIT DLA2-RMT-AK.
- 3.10/17/2022: REMOVED 90WA12H 3200K-1800K WARM DIM AND ADDED 90WA12H 3000K-1800K WARM DIM.
- 4.11/28/2022: REMODEL FIXTURES UPDATED WITH METAL CLASP CONNECTORS.
- 5.04/26/2023: ADDED DECLARE LBC RED LIST APPROVED.



Declare.

2 SERIES LED WALL GRAZER

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	DVSCTV 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	IllumaTch 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-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 EA2 / LA2 Dimmer / Switch Control Manufacturer	Family/Model #
Busch-Jaeger	2112U-101
Jung	240-10
Leviton Lighting Controls	IP710-DLX
Lightolier Controls	ZP600FAM120
Lutron Electronics	Nova T® - NTFTV
Lutron Electronics	Div@ - DDTV
Lutron Electronics	Nova@ - NFTV
Merten	5729
Pass & Seymour	CD4FB-W
The Watt Stopper	DCLV1
Sensor Switch	nIO EZ
Synergy	ISD BC
Power supply EA2 / LA2 Lighting Control Systems	Family/Model #
Lutron Electronics	GrafixEye® GRX-TVI w GRX3503
Lutron Electronics	Energy Savr Node™ - QSN-4T16-S
Lutron Electronics	TVM2 Module
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
ABB	SD/S 2.16.1

