

2 SERIES LED

WALLWASH

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: |
|---------------|-------|



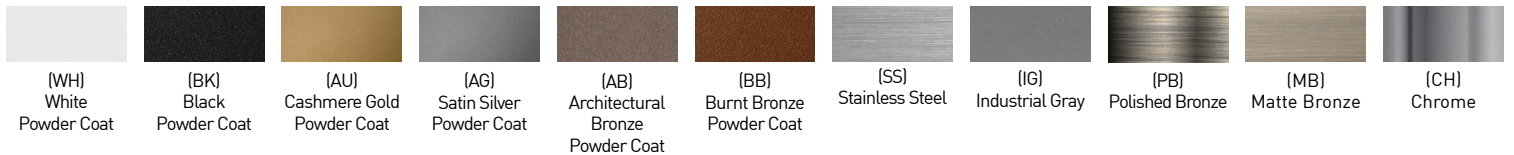
ORDERING INFORMATION

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

JA8-2019 INDICATED BY SHADING

| TRIM | RATING | FLANGE FINISH | LUMEN PACKAGE | CCT | OPTIC | INSTALL TYPE | CEILING THICKNESS | POWER SUPPLY | EFFECTS DEVICE | FLANGE CONFIGURATION |
|---|----------------------|---|--|---|--|--|--|--|------------------|--|
| | | | | | WW | | | WL | | |
| 2RW Round Expanded 2SW Square Expanded | 1 Dry/Damp 2 Wet* | WH White BK Black AU Cashmere Gold AG Satin Silver PR Primer AB Arch Bronze BB Burnt Bronze SS Stainless Steel* *Increased lead time IG Industrial Gray PB Polished Bronze* *Increased lead time MB Matte Bronze* *Increased lead time CH Chrome* *Increased lead time CF Custom* *(Consult Factory) | STATIC WHITE 80CA12L 80+ CRI, 1200 Source Lumens (Delivered - 2RW 555, 2SW 480) 80CA16L 80+ CRI, 1600 Source Lumens (Delivered - 2RW 765, 2SW 660) 80CA23H 80+ CRI, 2300 Source Lumens (Delivered - 2RW 1052, 2SW 909) 90CA10L 90+ CRI, 1000 Source Lumens (Delivered - 2RW 477, 2SW 412) 90CA14L 90+ CRI, 1400 Source Lumens (Delivered - 2RW 653, 2SW 564) 90CA19H 90+ CRI, 1900 Source Lumens (Delivered - 2RW 902, 2SW 779) 97CA10L 97+ CRI, 1000 Source Lumens (Delivered - 2RW 425, 2SW 367) 97CA12L 97+ CRI, 1200 Source Lumens (Delivered - 2RW 582, 2SW 502) 97CA17H 97+ CRI, 1700 Source Lumens (Delivered - 2RW 804, 2SW 694) | 22 2200K* *Only available with 90+ CRI 27 2700K 30 3000K 35 3500K 40 4000K | WW Wallwash Optic | Housing W/Integral Driver (HB) NC NIC IC IC AT IC, Airtight, Chicago Plenum | 0 0.125" - 0.49" *RM, RR Install Types only 1 0.50" - 0.75" 2 0.76" - 1.25" | (120V) TR2 Philips, 2% Leading/Trailing/Triac* *(Not available for 80CA12L, 90CA10L, 97CA10L) L23 Lutron, Hi-Lume 1% 2-Wire (120-277V) LH1 Lutron, Hi-Lume 1% Ecosystem LP1 Lutron, Premier 0.1% Ecosystem AN4 Philips Xitanium 1% 0-10V, LOG LN2 Philips Xitanium 1% 0-10V, LIN EA2 eldoLED, SOLdDrive 0.1% 0-10V, LOG LA2 eldoLED, SOLdDrive 0.1% 0-10V, LIN ED1 eldoLED, SOLdDrive 0.1% DALI, LOG LD1 eldoLED, SOLdDrive 0.1% DALI, LIN | WL Wallwash Lens | F Flange Overlay (No Applique) G Zero Sightline Gypsum (1/16" Applique)* *(Not available for wet location) P Zero Sightline Plaster (1/8" Applique)* *(Not available for wet location) |
| | | | WARM DIM 90WA11H 90+ CRI, 1130 Source Lumens Incandescent Profile (Delivered - 2RW 568, 2SW 476) 90WA13H 90+ CRI, 1360 Source Lumens Halogen Profile (Delivered - 2RW 598, 2SW 501) | WL 2700K - 1800K WD 3200K - 1800K | Remodel RM Remodel RR Remote-Remodel | | | | | |

*SEE PAGE 3 FOR DETAILED WARM DIM PROFILE COMPARISON.
L = 3.73" tall Low Flux Housing
H = 6.5" tall High Flux Housing
 *ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K.



PART NUMBER NOTES

- Trims ships as e.g. 2RW1-WH-80CA16LW-2HB1-L23WL
- 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

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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-WW-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

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STATIC WHITE PERFORMANCE - 3000K

| LUMEN PACKAGE | WATTAGE | WALLWASH | | | |
|---------------|---------|-----------|-----|-----------|-----|
| | | 2RW | | 2SW | |
| | | DELIVERED | LPW | DELIVERED | LPW |
| 80CA12L | 10 | 555 | 56 | 480 | 49 |
| 80CA16L | 14 | 765 | 54 | 660 | 47 |
| 80CA23H | 21 | 1052 | 50 | 909 | 43 |
| 90CA10L | 10 | 477 | 48 | 412 | 42 |
| 90CA14L | 14 | 653 | 46 | 564 | 40 |
| 90CA19H | 21 | 902 | 43 | 779 | 37 |
| 97CA10L | 10 | 438 | 46 | 367 | 37 |
| 97CA12L | 14 | 582 | 41 | 502 | 36 |
| 97CA17H | 21 | 804 | 30 | 694 | 33 |
| 90WA11H | 14 | 568 | 40 | 476 | 34 |
| 90WA13H | 14 | 598 | 43 | 501 | 36 |

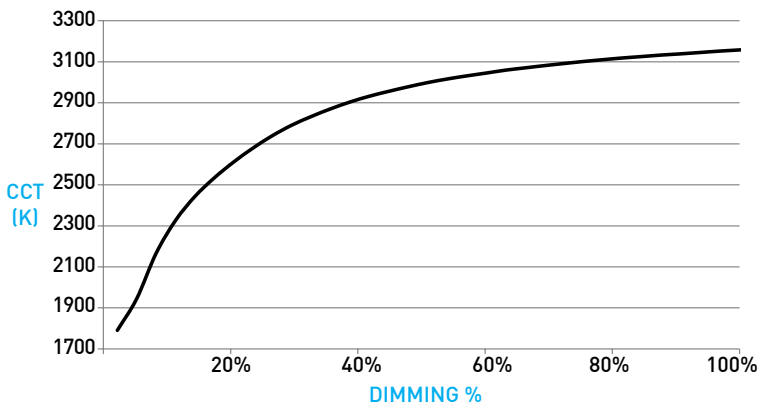
| OUTPUT MULTIPLIER | |
|-------------------|-----------|
| CCT | CCT SCALE |
| 2200K | 0.800 |
| 2700K | 0.957 |
| 3000K | 1.000 |
| 3500K | 1.019 |
| 4000K | 1.030 |

| LIGHT LOSS FACTOR MULTIPLIER | |
|------------------------------|------|
| No Lens | 1.05 |
| CGL | 1.05 |
| SFL | 1.00 |
| SP SFL | 1.00 |
| FGL | 0.90 |
| SP FGL | 0.90 |
| FLSL | 0.83 |
| HCL | 0.65 |

WARM DIM PERFORMANCE

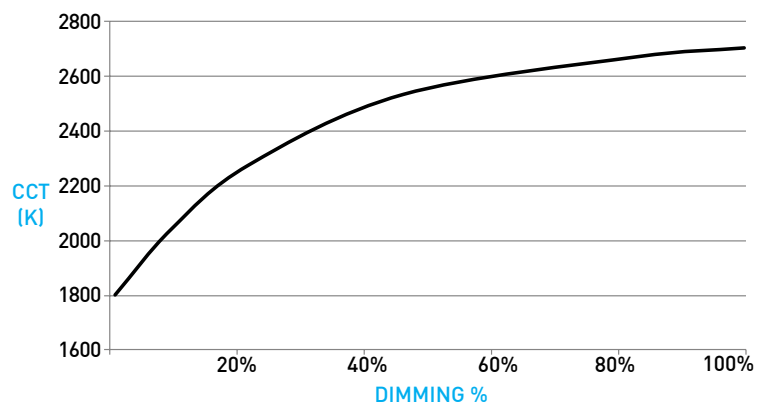
WARM DIM TO MIRROR HALOGEN DIMMING PROFILE

| 90WA13H 3200K - 1800K | Full on 100% | Dimmed to 80% | Dimmed to 70% | Dimmed to 50% | Dimmed to 20% | Dimmed to 10% | Dimmed to 2% |
|--------------------------|-----------------|------------------|------------------|------------------|------------------|------------------|-----------------|
| CCT (K) | 3200 | 3150 | 3100 | 3000 | 2700 | 2200 | 1800 |
| Light Output (Lm) | 1360 | 1050 | 900 | 630 | 250 | 115 | 25 |
| Power (W) | 14 | 11 | 10 | 7 | 3 | 1.5 | 0.3 |
| Efficacy (LPW) | 92 | 93 | 90 | 90 | 83 | 76 | 74 |



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 | 2620 | 2520 | 2180 | 1950 | 1800 |
| Light Output (Lm) | 1130 | 880 | 770 | 550 | 220 | 110 | 30 |
| Power (W) | 14 | 11 | 10 | 7 | 3 | 1.5 | 0.5 |
| Efficacy (LPW) | 80 | 80 | 77 | 77 | 73 | 73 | 60 |



JA8-2019 TITLE 24 COMPLIANT CONFIGURATIONS



| | Wallwash Optic | | | | | | | | |
|-----|----------------|-----|-----|------|-----|-----|------|-----|--|
| | 90CA | | | 97CA | | | 90WA | | |
| | 10L | 14L | 19H | 10L | 12L | 17H | 11H | 13H | |
| 2RW | ✓ | | | ✓ | | | | | |
| 2SW | | | | | | | | | |

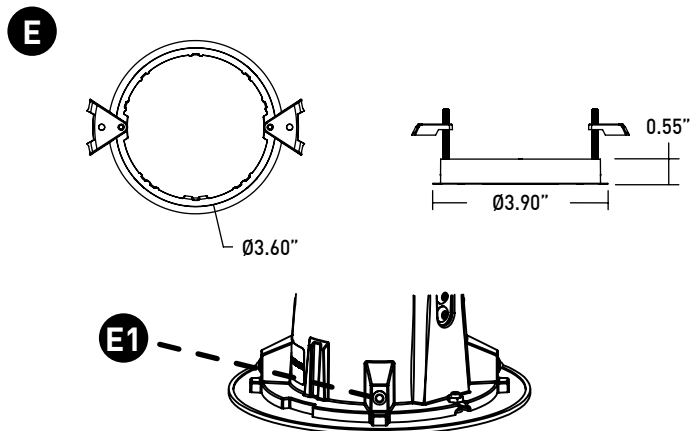
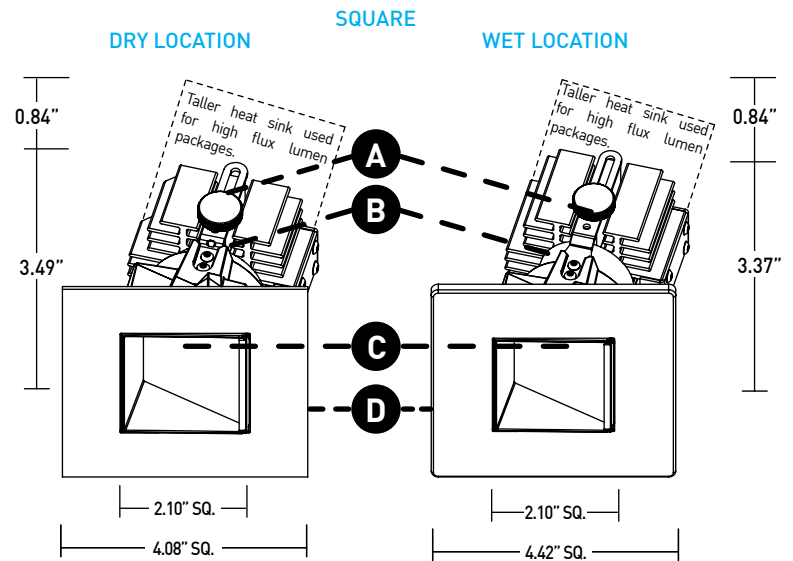
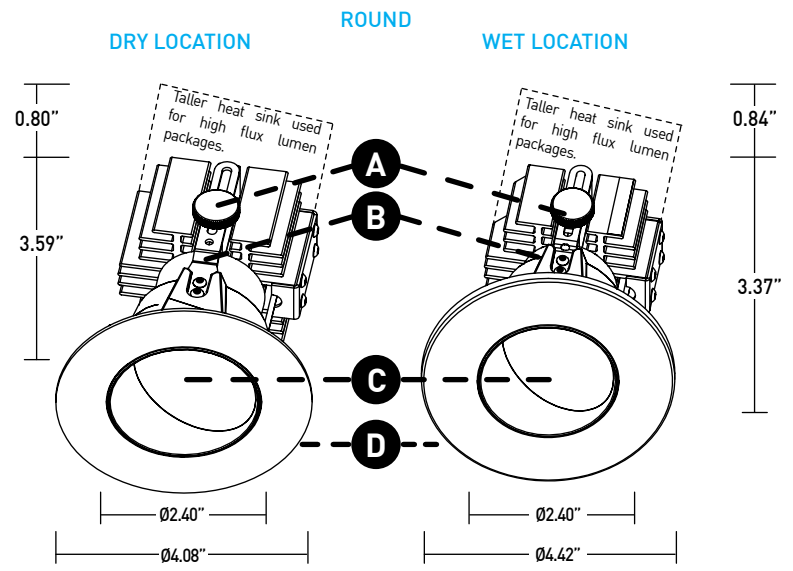
2 SERIES LED WALLWASH

DOWNLIGHT

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

- A** **ADJUSTABLE YOKE**
Adjustable yoke allows for quick access to optic and effects device.
- B** **OPTICS**
40° optic for optimal wallwashing.
- C** **EFFECTS DEVICES**
Wallwash 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" (1.7mm)
 - 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" (95mm) 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 WALLWASH

HOUSING

- F LOW FLUX NO INSULATION CONTACT (NON-IC) HOUSING**
- Included with NC and NR Low Flux lumen packages.
 - Minimum 0.50" (13mm) setback from combustible and non-combustible materials on all sides and top of housing.
 - Minimum 3.00" (76mm) setback from insulation material having max R-Value 30 on all sides and top of housing.
 - Minimum 6.00" (152mm) 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.

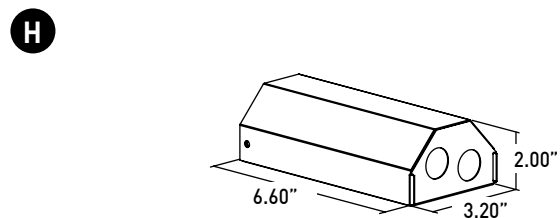
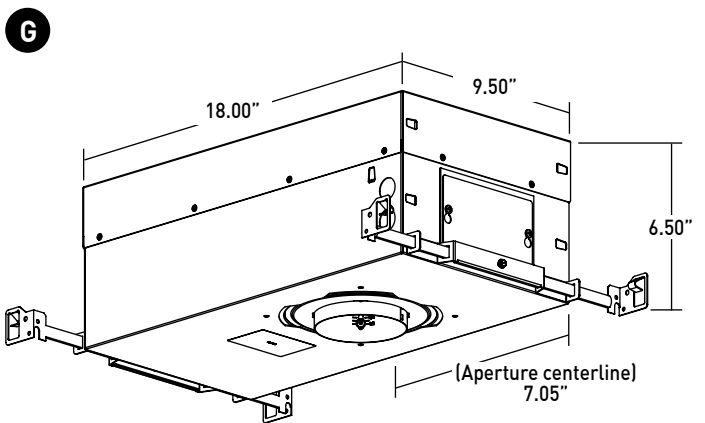
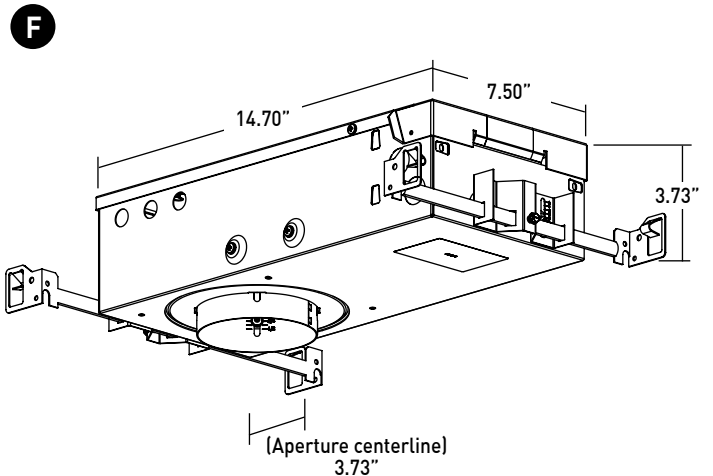
HOUSING MOUNTING NOTES

- AT and AR install types are required for Chicago Plenum, 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 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". Remote power supply provides additional driver options. Consult installation guide for maximum allowable secondary run lengths between PS-RMT and fixture. Must be installed in an accessible location.

DIMENSIONS / DRAWINGS



2 SERIES LED WALLWASH

REMODEL POWER SUPPLY

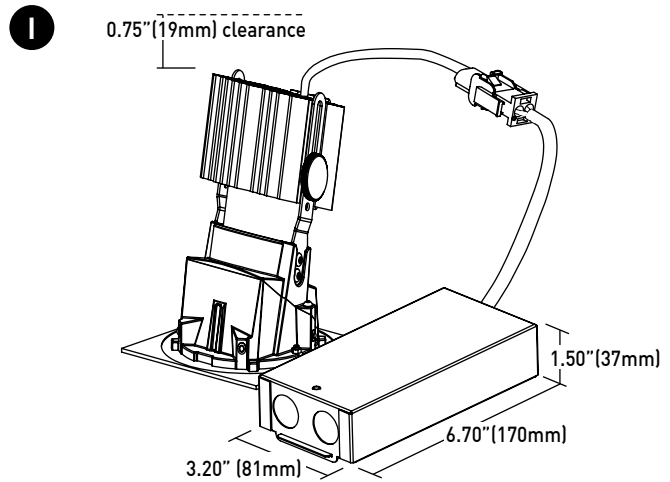
I REMODEL POWER SUPPLY

- Included with RM Install Type.
- UL2043 listed for air-handling plenum.
- Fixture mounts without conventional housing using supplied downlight trim adapter.
- Minimum 0.75" (19mm) clearance from top of fixture.
- Minimum setback from combustible and non-combustible materials of 6.63" (168mm) radius from fixture centerline.
- Minimum 3.00" (76mm) setback from surfaces of power supply / junction box if not situated within above noted radius from fixture centerline.
- Minimum additional 3.00" (76mm) setback from insulation material with max R-Value 30 from any surface of downlight fixture assembly.
- Minimum additional 6.00" (152mm) setback from polycell spray foam insulation with max R-Value 60 from any surface of downlight fixture assembly.

J REMOTE APPLICATIONS

- Remote power supply and DLA2-RMT-AK accessory kit included with RR Install Type.

DIMENSIONS / DRAWINGS



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

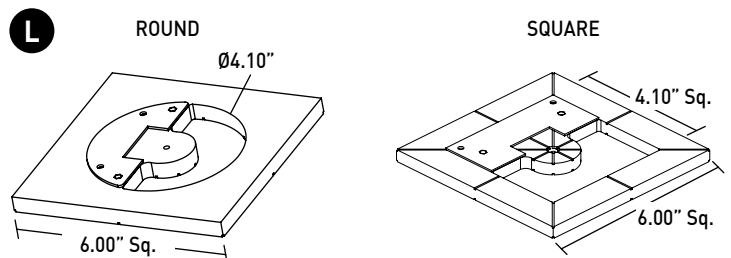
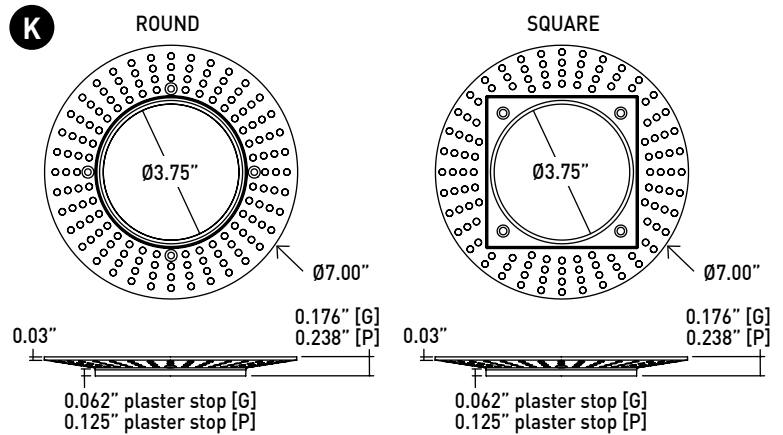
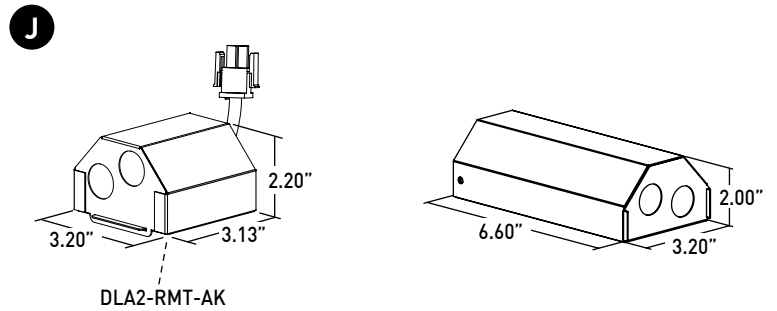
Zero-Sightline installations available for Dry / Damp location fixtures only. When installed according to manufacturer's instructions and ceiling conditions are met, fixture is flush with the ceiling plane. Consult 2-Series Installation Guidelines for appropriate ceiling cutouts and instructions for 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" (1.6mm).
- Recommended for painted ceiling applications.
- 1/8" Appliqué (P Flange Configuration) offers double thick plaster stop of 1/8" (3.2mm) 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.



2 SERIES LED WALLWASH

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 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. 3200K 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 4 to confirm appropriate dimming curve for compatibility with selected control.

SPACING

Recommended fixture spacing is 36" on center with 36" setback from wall plane.

LISTING

cTUVus listed to UL1598 standard for Dry / Damp and Wet locations. Chicago Plenum, Airtight and Title 24 JA8-2019 Listed.

WARRANTY

Manufacturer's 1-year warranty guarantees product(s) listed to be free from defects in material and workmanship under normal use and service. 5-year warranty on LED and power supply to operate with 70% of the original flux and remain within a range of 3 duv. 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

- 01/12/2021: ADDED 2200K AND 2700K-1800K WARM DIM OFFERINGS.
- 02/10/2020: ADDED CHICAGO PLENUM TO AT AND AR HOUSING DESCRIPTIONS
- 10/08/2019: NEW CONSOLIDATED SPEC SHEETS WITH SINGLE NOMENCLATURE FOR SPECIFICATION
- 10/08/2019: NOW OFFERING QUICK SHIP FOR ROUGH-IN COMPONENTS.

2 SERIES LED WALLWASH

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@ - DVTV |
| Lutron Electronics | Nova@ - NFTV |
| Merten | 5729 |
| Pass & Seymour | CD4FB-W |
| The Watt Stopper | DCLV1 |
| Sensor Switch | nI0 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 |

