2 SERIES LED INT

WALL GRAZER

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:





ORDERING INFORMATION

FITTING	RATING	FLANGE FINISH	CRI/WATTAGE PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	POWER SUPPLY	MEDIA	FLANGE CONFIGURATION
					WG	EX			GL	
2PG Round Pinhole 2SG Square Expanded	1 IP20 Dry/Damp 2 IP64 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) FINISH IMAGES ON PAGE 2	LOW FLUX STATIC WHITE 3.73" TALL HOUSING 80506A 80+ CRI, 6 Watts [Delivered - 2PG 331, 2SG 389] 80511A 80+ CRI, 11 Watts [Delivered - 2PG 536, 2SG 628] 80515A 80+ CRI, 15 Watts [Delivered - 2PG 536, 2SG 856] 90506A 90+ CRI, 6 Watts [Delivered - 2PG 285, 2SG 335] 90511A 90+ CRI, 11 Watts [Delivered - 2PG 285, 2SG 335] 90511A 90+ CRI, 15 Watts [Delivered - 2PG 624, 2SG 541] 90515A 90+ CRI, 15 Watts [Delivered - 2PG 624, 2SG 738] 97506A 97+ CRI, 6 Watts [Delivered - 2PG 407, 2SG 476] 97511A 97+ CRI, 11 Watts [Delivered - 2PG 407, 2SG 476] 97515A 97+ CRI, 15 Watts [Delivered - 2PG 407, 2SG 476] 97515A 97+ CRI, 15 Watts [Delivered - 2PG 549, 2SG 649] HIGH FLUX STATIC WHITE 6.5" TALL HOUSING 80521A 90+ CRI, 21 Watts [Delivered - 2PG 862, 2SG 997] 97521A 90+ CRI, 21 Watts [Delivered - 2PG 862, 2SG 997] 97521A 90+ CRI, 21 Watts [Delivered - 2PG 862, 2SG 997] 97521A 90+ CRI, 21 Watts [Delivered - 2PG 758, 2SG 877] WARM DIM 6.5" TALL HOUSING 90W11A 90+ CRI, 11 Watts Incandescent Profile: 2700K - 1800K [Delivered - 2PG 263, 2SG 323] 90W15A 90+ CRI, 15 Watts Incandescent Profile: 2700K - 1800K [Delivered - 2PG 386, 2SG 406] Halogen Profile: 3000K - 1800K [Delivered - 2PG 389, 2SG 406] *SEE PAGE 4 FOR DETAILED WARM DIM PROFILE COMPARISON. TUNABLE WHITE	24 2400K* *(90-CRI only, 15W max) 27 2700K 30 3000K 35 3500K 40 4000K WL 2700K- 1800K WL 2700K- 1800K WL 3000K- 1800K	WG Wall Grazer Optic	EX Export.	0 3mm-13mm 1 13mm-20mm 2 20mm-32mm 3 32mm-51mm 4 51mm-76mm	(120-277V)	GL Wall Grazer Lens	F Flange Overlay [No Applique] G Zero Sightline Gypsum (1.57mm Applique)* *(Not available for IP64 wet location) P Zero Sightline Plaster [3.18mm Applique)* *(Not available for IP64 wet location)
			6.5" TALL HOUSING 90T17A 90+ CRI, 17 Watts Warm Profile [Delivered - 2PG 386, 2SG 406] Cool Profile [Delivered - 2PG 369, 2SG 406] *ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K.	TR 4000K- 1800K TH 5000K- 2700K						

PART NUMBER NOTES

- Fittings ships as e.g. 2SG1-WH-80S15A2-GEX1-AN3GL Driver ships with fitting
- Appliqué ships with fitting





reserves the right to change or withdraw specifications without prior notice.

ACCESSORIES

REPLACEMENT OPTIC

Interchangeable optics accessible through fitting aperture.

□ R0-50-WG-2 Wall Grazer Optic

ROUTER TOOL GUIDE (IP10 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

FINISHES BY LUCIFER LIGHTING™











(WH) White Powder Coat

(AG) Satin Silver Powder Coat

(IG) Industrial Gray Bead-Blasted

(AU) Cashmere Gold Architectural Bronze Burnt Bronze Powder Coat

(AB) Powder Coat

(BB) Powder Coat



(BK) Stainless Steel Black Powder Coat Orbital Brushed 304 Stainless Steel



(CH) Chrome Plated Finish



Plated Finish



Polished Bronze Plated Finish

DRIVE CURRENT SPECIFICS

	80S				90S			97	775			90	0W		90T			
	06A	11A	15A	21A	06A	11A	15A	21A	06A	11A	15A	21A	11AD	11AL	15AD	15AL	17AH	17AR
Minimum Vf	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Maximum Vf	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	37.6	37.6	37.6	37.6	37.6	37.6
Current mA	150	250	350	500	150	250	350	500	150	250	350	500	250	250	350	350	400	400
Wattage W	6	11	15	21	6	11	15	21	6	11	15	21	8	8	15	15	14	14

	10 DEGREE OPTIC				
	80S15C	90S15C	97S15C		
Minimum Vf	30.5	30.5	30.5		
Maximum Vf	36.2	36.2	36.2		
Current mA	350	350	350		
Wattage W	15	15	15		

WALL GRAZER DESIGN GUIDE

ROUND



RECOMMENDED 18" SETBACK / 24" ON CENTER SPACING

- AVERAGE FC: 11.42
- MIN / MAX: 3.10
- 10FT CEILING SHOWN / 8-12FT IDEAL
- 10 FIXTURES / 22FT WALL SHOWN

SQUARE



RECOMMENDED 18" SETBACK / 24" ON CENTER SPACING

- AVERAGE FC: 14.48
- MIN / MAX: 5.06
- 10FT CEILING SHOWN / 8-12FT IDEAL
- 10 FIXTURES / 22FT WALL SHOWN

ADDITIONAL SPACINGS AND SETBACKS

ROUND								
ON CENTER	SETBACK							
SPACING	16"	18"						
22"	AVERAGE FC: 13.15 MIN / MAX: 3.03	AVERAGE FC: 12.48 MIN / MAX: 2.83						
24"	AVERAGE FC: 11.99 MIN / MAX: 3.12	SHOWN ABOVE						
26"	AVERAGE FC: 10.92 MIN / MAX: 4.97	AVERAGE FC: 10.37 MIN / MAX: 4.70						
28"	AVERAGE FC: 10.24 MIN / MAX: 5.26	AVERAGE FC: 9.76 MIN / MAX: 4.86						

	SQUARE								
ON CENTER	SETBACK								
SPACING	16"	18"							
22"	AVERAGE FC: 16.97 MIN / MAX: 4.60	AVERAGE FC: 16.14 MIN / MAX: 5.03							
24"	AVERAGE FC: 15.08 MIN / MAX: 4.87	SHOWN ABOVE							
26"	AVERAGE FC: 14.15 MIN / MAX: 4.91	AVERAGE FC: 13.48 MIN / MAX: 5.34							
28"	AVERAGE FC: 13.05 MIN / MAX: 4.73	AVERAGE FC: 12.55 MIN / MAX: 5.00							

*ALL DATA REFLECTS 90S15A WATTAGE PACKAGE

STATIC WHITE PERFORMANCE - 3000K

CRI/	WATTAGE	WALL GRAZER								
WATTAGE		21	PG	2SG						
PACKAGE		DELIVERED	LPW	DELIVERED	LPW					
80S06A	6	331	55	389	65					
80S11A	11	536	49	628	57					
80S15A	15	724	48	856	57					
80S21A	21	1000	48	1156	55					
90S06A	6	285	49	335	58					
90S11A	11	462	46	541	54					
90S15A	15	624	44	738	51					
90S21A	21	862	41	997	47					
97S06A	6	251	42	295	49					
97S11A	11	406	37	494	38					
97S15A	15	549	37	649	43					
97S21A	21	758	36	877	42					
90W11A (WL 27K-18K)	11	276	28	289	30					
90W11A (WD 30K-18K)	11	263	27	323	33					
90W15A (WL 27K-18K)	15	386	28	404	29					
90W15A (WD 30K-18K)	15	369	26	452	32					
90T17A (TR 40K-18K)	17	753	45	833	49					
90T17A (TH 50K-27K)	17	746	44	825	49					

OUTPUT MULTIPLIER

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

TUNABLE WHITE MULTIPLIER

ССТ	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

Part L

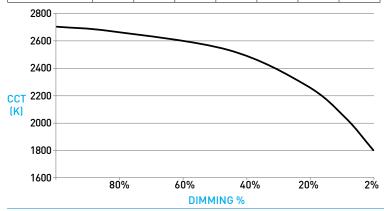
75+ LPW configurations comply with residential Part L 95+ LPW configurations comply with commercial Part L

WARM DIM PERFORMANCE

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)	276	221	193	138	55	28	6
Power (W)	11	9	8	6	2.2	1.1	.2
Efficacy (LPW)	25	25	25	25	25	25	25
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	2450	2425	2550	2200	1000	1000

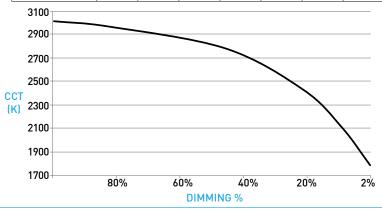
90W15AL 2700K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	2700	2650	2625	2550	2200	1900	1800
Light Output (Lm)	406	325	284	203	82	41	8
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	29	29	28	29	27	27	27



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)	289	231	202	145	58	29	6
Power (W)	11	9	8	6	2.2	1.1	.2
Efficacy (LPW)	26	26	26	26	26	26	26

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)	453	362	317	226	90	45	9
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	32	33	32	32	30	30	30





DOWNLIGHT FITTING

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 media.

OPTICS

Robust light engine with optimized optic pairing integrates Reflection, Refraction, and TIR offering a 40° wallgrazing beam.

MEDIA

Wall grazer lens included and sealed in place on wet location fixtures

TRIM PLATE

- Dry / Damp Location: Thickness measures 0.065".
- Wet Location: Sealed aperture and integral silicone gasket. 0.17" (4.3mm) return, installed as flange overlay only.

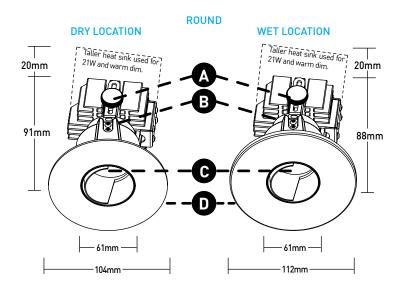
DOWNLIGHT TRIM ADAPTER

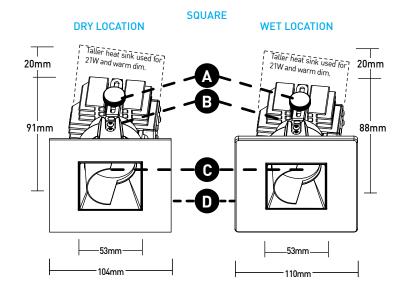
Included with fixture and required for installation. Provides required alignment with trim, ensuring fixture aim integrity is maintained Uses [2] #6-32 flat-head screws with varying lengths to accommodate ceiling depth. Installed after ceiling is complete.

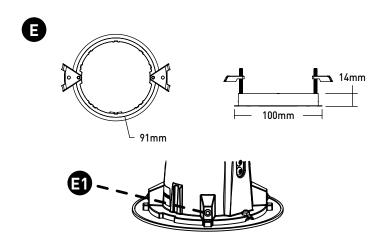
RETENTION

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

DIMENSIONS / DRAWINGS









POWER SUPPLY

FITTING WITH TETHERED POWER SUPPLY

- Requires 113mm diameter cutout.
- Tethered power supply protected wiring and quick-connect plug between fitting and power supply.
- Minimum 13mm clearance from top of fitting.
- Minimum setback from combustible and non-combustible materials of 168mm radius from fitting centerline; minimum 76mm from surfaces of power supply if not situated within above noted radius from fitting centerline.
- Minimum additional 76mm setback from insulation material with max R-Value 30 from any surface of fitting assembly.
- Minimum additional 152mm setback from polycell spray foam insulation with max R-Value 60 from any surface of fitting assembly.
- Consult factory for spacing requirements for any installations exceeding R-Value 60.
- Do not install in environments where ambient temperatures exceed 40°C (104°F).

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.

APPLIQUÉ

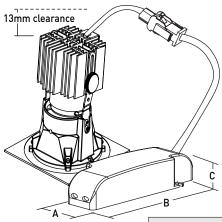
- Specified on Flange Configuration and ships with housing; ships separately on remodel installations.
 - For use in sheetrock ceiling applications.
 - 1.57mm Appliqué (G Flange Configuration) recommended for gypsum ceiling installations and has plaster stop thickness of 1.57mm. Recommended for painted ceiling applications.
 - 3.18mm Appliqué (P Flange Configuration) offers double thick plaster stop of 3.18mm where a heavier application of mud is preferred. Recommended for colorfast and venetian plaster applications. Not recommended for stucco applications.

ROUTER TOOL GUIDE

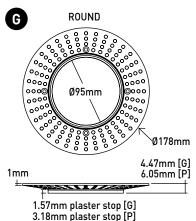
- Specified separately and used with Flange Overlay configurations.
- For use in wood ceiling applications.
- DLA-RTG-2S-RD or DLA-RTG-2S-SQ required for wood Zero-Sightline ceiling installations.
- Router tool guide is reusable and suitable for multiple fittings.

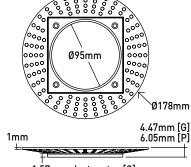
DIMENSIONS / DRAWINGS



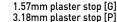


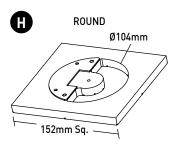
POWER SUPPLY DIMENSIONS						
Model	Α	В	С			
AN3						
LN1	41mm	210mm	34mm			
EA1	4 Imm					
LA1						
ED1	76mm	152mm	31mm			
LD1	/0111111	19201111				

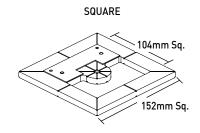




SQUARE







TECHNICAL INFORMATION

CONSTRUCTION

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

<u>Downlight Fitting Adapter</u>: High-impact composite and stainless steel. Appliqué: Zinc alloy.

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 temperatures of 2400K. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.



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

	0-10V				DALI-2		
Power Supply	EA1	LA1	AN3	LN1	ED1	LD1	DD1
Minimum °C	-20 °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
Dimming %	0.1%	0.1%	1.0%	1.0%	0.1%	0.1%	0.1%

Note: For EA1 and LA1 drivers consult chart on page 8 to confirm appropriate dimming curve for compatibility with selected control.

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

LISTING

CE Listed for IP20 Dry / Damp and IP64 Wet locations.

DECLARE

LBC Red List Approved.

Part L compliant for all 75+ LPW residential and 95+ LPW commercial configurations.

FIXTURE WEIGHT

Fitting - 1.4 lbs max Driver - 0.4 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. Consult website for full warranty terms and conditions.

- 1.01/12/2021: ADDED 2200K AND 2700K-1800K WARM DIM OFFERINGS.
- 2. 08/12/2020: ADDED -3 (20mm-32mm) CEILING THICKNESS.
- 3.10/08/2019: NEW CONSOLIDATED SPEC SHEETS WITH SINGLE NOMENCLATURE FOR SPECIFICATION.
- 4.10/17/2022: REMOVED 90WA13H 3200K-1800K WARM DIM AND ADDED 90WA12H 3000K-1800K WARM DIM.
- 5.08/08/2023: UPDATED WITH NEW LED AND OPTIC SYSTEM.
- 6.02/07/2024: ADDED 2400K, LOW WATTAGE, AND TUNABLE WHITE OFFERINGS.
- 7.2/15/2024: PART L COMPLIANCE ADDED





reserves the right to change or withdraw specifications without prior notice.

DIMMING COMPATIBILITY

eldoLED DRIVER COMPATIBILITY

Power supply EA1 / LA1 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	Diva® - DVTV				
Lutron Electronics	Nova® - NFTV				
Merten	5729				
Pass & Seymour	CD4FB-W				
The Watt Stopper	DCLV1				
Sensor Switch	nIO EZ				
Synergy	ISD BC				
Power supply EA1 / LA1 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				
OTCS(TOTTO	CLS-EXP-DIMFLV				
Crestron®	CLCI-1DIMFLV2EX				

reserves the right to change or withdraw specifications without prior notice.