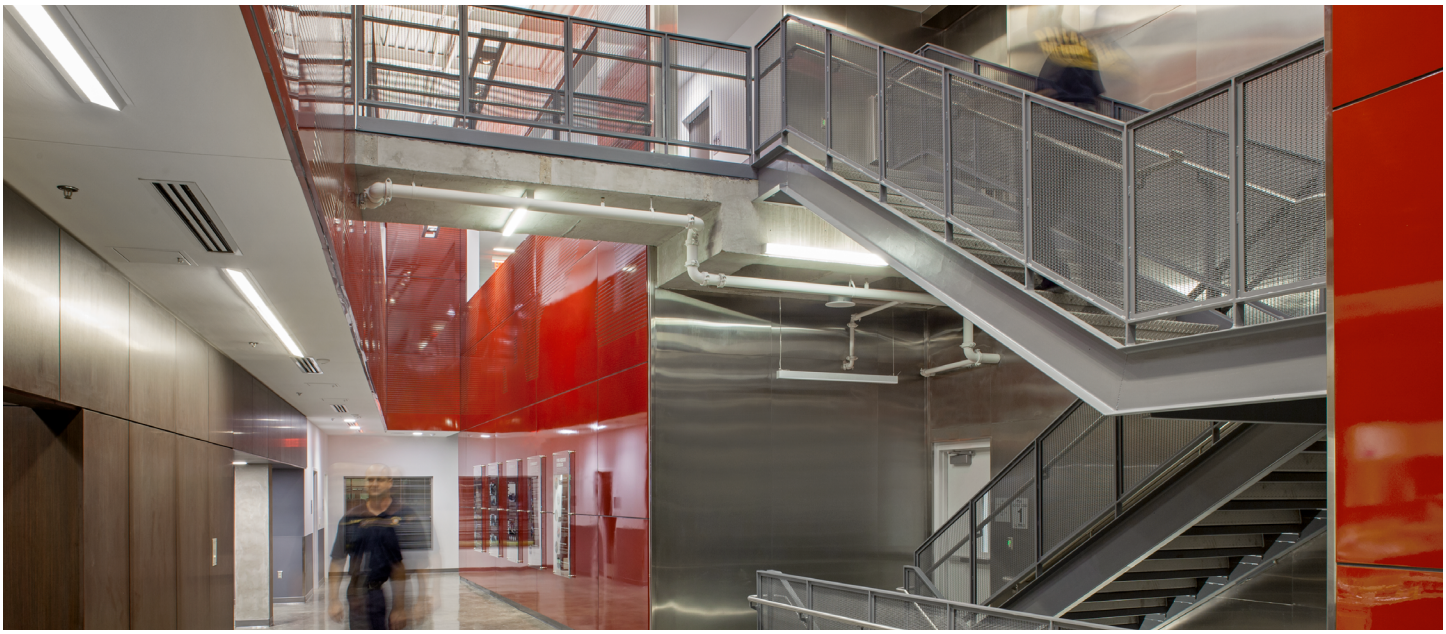
LIGHTPLANE 3.5R

LP3.5RWWT | RECESSED WALL WASHER



SPECIFICATIONS

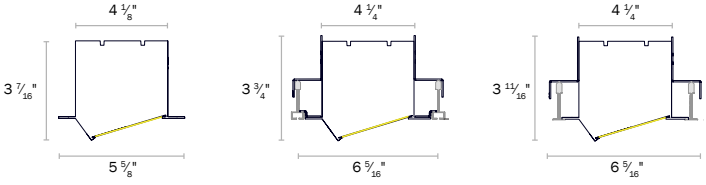
PROFILE	3.5” Aperture
SIZES	Configurable in straight run sections
LED OUTPUT	125lm/ft - 1160lm/ft.
CCT/CRI	2700K/3000K/3500K/4000K • 80 or 90+ CRI Tunable White (2700K – 6500K) • RGB and RGB+W
DIMMING/ DRIVER	Integral Driver: 0-10V, DALI, DMX, eldoLED, Lutron®, PoE (Molex, Igor, NuLEDS). Dimming to 0% for select models.
POWER	3.1W - 10.7W per ft
INPUT	120VAC, 277VAC, or 347VAC
OPTICS	Lambertian distribution. High transmission integral lens
FINISHES	16 powder coat finishes Custom finishes also available
MATERIAL	6061 Extruded Aluminum
ENVIRONMENT	Indoor/outdoor, dry or damp locations
WELL/UGR	See ALW WELL and BIOS pages for recommended options that contribute to meeting the WELL Building Standard™

*Safety and Performance information available on last page. Output and other specifications available on page 5.

DISTRIBUTIONS & PROFILES

DIRECT

Straight Run (S)



DRY SLOT TGRID

Not to scale. Dimensions are nominal. Consult factory for CAD drawing

Intertek enlighted nLIGHT COOPER PoE Ready molex igor NuLEDs bios

Rev 011025

ALW

PRODUCT SPECIFICATION SHEET

1	2	3	4a	4b	4c	5	6	7	8	9a	9b	9c

EXAMPLE: LP3.5RWWT — DRY — S5 — HI/90/3500 — V00 — EXT — SW — UNV — EMB/1 — AY/xx — CP

1. BASE MODEL

- ☐ **LP3.5RWWT** 3.5" Recessed, Trimmed, Wall Washer

2. CEILING TYPE* (CHOOSE 1)

- ☐ **DRY** Drywall
- ☐ **TGRID** T-Grid
- ☐ **SLOT** Slot
- ☐ **ATZ/TGRID**[1] Armstrong® Techzone T-Grid
- ☐ **ATZ/SLOT**[1] Armstrong® Techzone Slot

*Additional ceiling types may be available, consult ALW.
[1]All product and company names are trademarks or registered trademarks of their respective holders. Use of them does not imply any affiliation with or endorsement by them.

3. LENGTH* (ENTER LENGTH IN FT)

- ☐ **S__** Individual/Straight Run Section *(enter length over 2ft in product code above, ex. S2)*

*Lengths are nominal and may vary based on lamping and other specification selections. Consult ALW when exact lengths are required.

4. LED LAMPING (CHOOSE 1 FOR EACH)

A. OUTPUT[2]

- ☐ **LOW** (670 lm/ft)
- ☐ **MED** (920 lm/ft)
- ☐ **HI** (1160 lm/ft)
- ☐ **RGB** (125 lm/ft)
- ☐ **TUNE** (2700K-6500K, 90 CRI, 440/475 lm/ft)
- ☐ **RGBW** (3500K, White, 80 CRI, 335 lm/ft)
- ☐ **CSTM____**[4] (Enter lumens in product code above. Ex. 0100=100lm/ft)

B. CRI[3]

- ☐ **NO CRI/CCT**[5]
- ☐ **80**
- ☐ **90**
- ☐ **BIOS**[6] (STATIC BIOS)
- ☐ **BIOSD**[6] (DYNAMIC BIOS)

C. CCT[3]

- ☐ **2700K**[7]
- ☐ **3000K**
- ☐ **3500K**
- ☐ **4000K**

[2]For delivered lumens and watts, see 'Performance Details.'
[3]CRI/CCT options not applicable for TUNE, RGB, or RGBW lamping.
[4]Consult ALW for custom lumen packages.
[5]Choose when TUNE, RGB, or RGBW is desired output
[6]Static BIOS SkyBlue® 490nm LED is always on. Dynamic BIOS SkyBlue® 490nm LED can be tuned out with most LED driver and dimmer combinations. See pages 6-7 for details.
[7]90CRI only. 2700K is not available in BIOS options.

5. DRIVER* (CHOOSE 1.)

- ☐ **V00** (0-10V, dim to 0%)
- ☐ **V01** (0-10V, dim to 1%)
- ☐ **V05** (0-10V, dim to 5%)
- ☐ **P01** (ELV/TRIAC Dim to 1%)
- ☐ **LDE1** (Lutron ECOSYS1, 0-10V, dim to 1%)
- ☐ **TSERIES** (Lutron Tuneable White)
- ☐ **ELDV0** (eldoLED, 0-10V, dim to 0%)
- ☐ **ELDDW** (eldoLED dim to warm)
- ☐ **DALI** (DALI, dim to 0%)
- ☐ **DMX** (DMX, dim to 0%)
- ☐ **POEM** (POE Molex)
- ☐ **POEI** (POE IGOR)
- ☐ **POEN** (POE Nuleds)
- ☐ **POE**[8] (POE Ready)

*Driver specifications provided upon request. *See page 8 for driver details.*
*Refer to all 'Driver' and lamping charts for compatibility.
[8]Choose desired PoE solution not listed. Contact customer service to review and confirm the PoE system of your choice.

6. LENS* (CHOOSE 1.)

- ☐ **HT** High transmission integral lens

7. FINISHES* (CHOOSE 1)

STANDARD FINISHES

- ☐ **SW** Satin White
- ☐ **SB** Satin Black
- ☐ **AS** Aluminum Silver Anodized Effect
- ☐ **TB** Textured Black

PREMIUM FINISHES

- ☐ **__** See chart on page 5 for premium finishes. Manually type in the finish code (Ex: OB = Oil-Rubbed Bronze)

SPECIAL ORDER FINISHES*

- ☐ **RAL____** Specify RAL Classic Color (Ex: RAL 3003)
- ☐ **CCM____** Custom Color Match

*Manually type in the finish code for special order finishes types

8. VOLTAGE (CHOOSE 1)

- ☐ **UNV** Universal Voltage (120VAC-277VAC)
- ☐ **347** 347 Volt *(Driver options may be limited. Not available with EMB)*

9a. EMERGENCY OPTIONS (OPTIONAL, CHOOSE 1)

- ☐ **EMB/__**[9] Emergency Battery *(indicate QTY — each battery powers 4ft. section @ 1492lm. Not available in 347 V)*
- ☐ **EMC/__**[9] Emergency Circuit *(indicate QTY of 4ft sections to be illuminated by emergency circuit)*

[9]For fixtures under 4ft in length, entire fixture will be illuminated with a proportional lumen output. Consult ALW for more details.

9b. CONTROL OPTIONS* (OPTIONAL)

- ☐ **N** None

FACTORY CONTROLS

- ☐ **OS/PH/INT/__** Integral Occupancy/ Daylight sensor
- ☐ **OS/PH/HV/__** Remote Occupancy/ Daylight sensor

NETWORK CONTROLS

Embedded controls below are placeholder specs. See the ALW Controls Guide to finalize your final control spec.

- ☐ **AY/xx** Acuity
- ☐ **AN/xx** Avi-on
- ☐ **CA/xx** Casambi
- ☐ **CW/xx/__** Cooper Wavelinx
- ☐ **EC/xx/__** Encelium
- ☐ **EN/xx/__** Enlighted
- ☐ **LU/xx/__** Lutron
- ☐ **NX/xx/__** NX Controls
- ☐ **WA/xx/__** Wattstopper

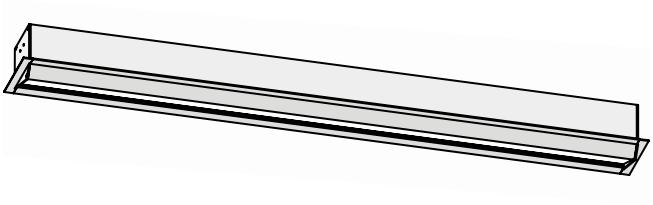
*Quickship availability on occupancy and photocell daylight sensors may vary. Contact ALW for more information.
*Contact ALW for Additional Zone specifications

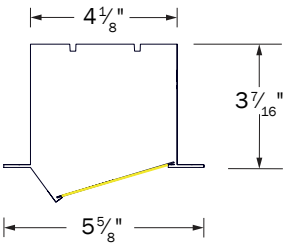
9c. CERTIFICATION OPTIONS

- ☐ **CP** Chicago Plenum Certification

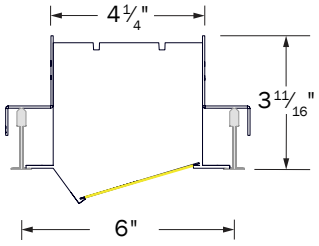
Rev 011025

MECHANICAL DIAGRAMS

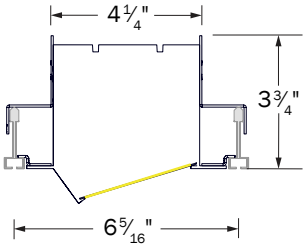




DRY



TGRID AND ATZ/TGRID



SLOT

FINISHES

Standard finishes are available at no additional charge.

STANDARD FINISHES

SW	AS	SB	TB
Satin White	Aluminum Silver Anodized Effect	Satin Black	Textured Black

PREMIUM FINISHES

BASIC POWDER COAT

GW	AW	TW
Gloss White	Antimicrobial Gloss White	Textured Matte White

METALLIC POWDER COAT

CG	CU	BR
Charcoal Gray	Copper	Brass

SATIN ANODIZED EFFECT POWDER COAT

OB	DB
Oil-Rubbed Bronze	Dark Bronze

GLOSS POWDER COAT (80-95% GLOSS)

GO	GR	GM	GB
Orange RAL 2003	Red RAL 3020	Magenta RAL 4010	Blue RAL 5015

Contact ALW Quotes for sample paint finish swatches.

SPECIAL ORDER FINISHES*

RAL CLASSIC COLORS (80-95% GLOSS): RAL_ _ _ _

Most RAL Classic Colors are available for a minimum setup fee. On your specification submittal choose your RAL color by entering the 4-digit RAL code (Ex: RAL 3003).
See www.alw-inc.com/resources/finishes

CUSTOM COLOR MATCH: CCM_ _ _ _

Custom powder coat color matching is available for a premium setup fee. Consult ALW for additional information.

*An individual setup fee will apply to each unique Special Order Finish per purchase order.
(ex: RAL 5023 and RAL 2008 are specified for multiple line items on a purchase order. 2x setup fees will apply)

*Printed or on-screen colors are only approximations - consult actual Color Chip Set before specifying

PERFORMANCE DETAILS

OUTPUT	DELIVERED LUMENS/FT	EFFICACY (LM/W)	WATTS/FT[10]	CRI OPTIONS	CCT OPTIONS
LOW[11]	670	Up to ~19=09	6.2	80 90	2700K (90CRI Only) 3000K 3500K 4000K 5000K
MED[11]	920		8.4		
HI[11]	1160		10.7		
TUNE	WW: 440, CW: 475	Up to ~113	8.4	90+	
RGB[12]	125	N/A	5	N/A	
RGBW[13]	RGB: 125 RGB+W: 335 White Only: 210		5	80 (White Chip)	2700K - 6500K

[10] *Lumens/Watt and Watts/ft have been calculated assuming a driver efficiency of 85%. Depending on field conditions, actual measured values may fluctuate by 5-8%.*

[11] *Performance calculations are based on LM-79 test of HI output at 80 CRI and 4000K. LOW and MED calculations are extrapolated values.*

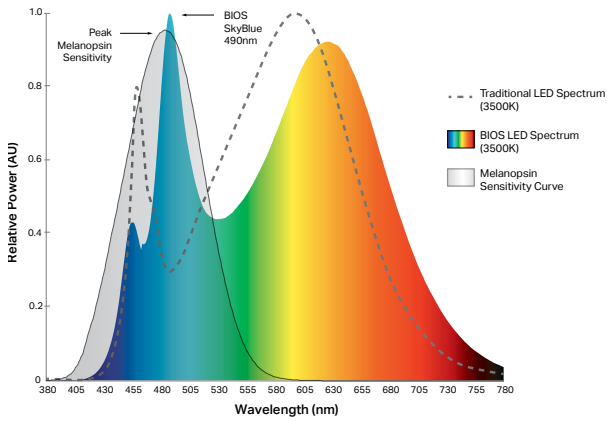
[12] *Performance calculations are derived from LM-79 test with all RGB LEDs illuminated (Red, Green, Blue).*

[13] *Performance calculations are derived from the following LM-79 tests: 1) RGB LEDs illuminated, 2) RGB+W LEDs illuminated, 3) White LED only illuminated.*

BIOS OVERVIEW

BIOS SkyBlue® technology is designed to provide the specific circadian stimulus required to improve overall sleep by **featuring a distinct peak in the 'skyblue' spectral power at 490nm**. Unlike traditional white LEDs, BIOS SkyBlue® makes it possible to achieve **high EML (Equivalent Melanopic Lux) and Melanopic/Photopic ratios** without harsh CCTs or high, glare-inducing light levels.

BIOS light engines are available in **Static** or **Dynamic** options for use with a variety of applications. In Static light engines, the SkyBlue 490nm signal always remains on while the fixture is powered. Dynamic options include a dynamic board and Bio-Dimmer module to allow the user to dim-out the SkyBlue 490nm signal during night time hours.



	BIOS STATIC (BIOS)	BIOS DYNAMIC + BIO-DIMMING™ (BIOSD)
DESCRIPTION	490nm SkyBlue light signal always remains on while the fixture is powered.	Dynamic light engine with Bio-Dimming add the ability to fine-tune and dim-out the 490nm SkyBlue signal during night time hours or as desired.
TYPICAL APPLICATIONS	Environments typically occupied only during daylight hours (6am - 8pm) such as offices and schools.	Environments occupied for a 24-hour period such as hospitals, security facilities, behavioral health facilities, factories, etc.
CONTROLS & DIMMING*	Works with any standard dimming controls (0-10V, Dali, EcoSystem, ELV, Triac, DMX, Wireless, etc.). BIOS melanopic ratio remains constant as you dim down the light intensity.	Works with any standard dimming controls (0-10V, Dali, EcoSystem, ELV, Triac, DMX, Wireless, etc.). BIOS SkyBlue® LED can be dimmed-out using a standard control/dimmer.

**No unique wiring instructions required. However, Dynamic + Bio-Dimming™ option must be set up properly during initial startup to the desired light level setpoint. See installation guide for details.*

BIOS LED LAMPING DETAILS (STATIC OR DYNAMIC)

OUTPUT	DELIVERED LUMENS (LM/FT)	WATTS (W/FT)	EFFICACY (LM/W)	CRI OPTIONS
LOW[14]	600	8.2	Up to ~73.1	82+
MED[14]	825	11.5		
HI[14]	1050	14.9		

BIOS LED PERFORMANCE DETAILS

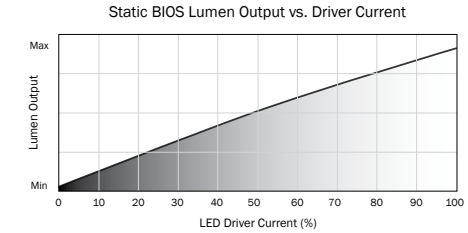
CCT	CRI (Ra) *Static BIOS* *Dynamic BIOS*	CRI (R9) *Static BIOS* *Dynamic BIOS*	DAYTIME M/P RATIO[15] *Static BIOS* *Dynamic BIOS*	NIGHTTIME M/P RATIO[16] *Static BIOS* *Dynamic BIOS*	COI[17] *Static BIOS* *Dynamic BIOS*
3000K	82 83	94 90	0.70 0.73	0.70 0.45	3.0 3.3
3500K	83 83	91 90	0.80 0.84	0.80 0.50	3.1 3.1
4000K	83 83	91 90	0.90 0.95	0.90 0.55	3.1 3.1

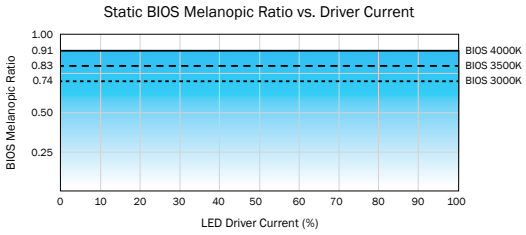
[14] *Performance calculations are based on LM-79 test of BIOS 4000K, HI output. LOW and MED calculations are extrapolated values.*
[15] *Melanopic to photopic (M/P) ratios are used to help calculate equivalent melanopic lux (EML) values which is the metric used for circadian lighting in the WELL™ Building Standard.*
[16] *Static LED nighttime M/P ratios remain the same as daytime M/P ratios as BIOS SkyBlue®® always remains at full output.*
[17] *BIOS SkyBlue® meets the Cyanosis Observation Index (COI) requirements for visual assessment of cyanosis, providing a COI up to 3.3.*

BIOS STATIC DIMMING CONTROL CHARACTERISTICS

DIMMER SETTING	LIGHT OUTPUT* (BIOS SKYBLUE® + WHITE LED)	
100%* (Full On)	100%	BIOS + White LED Intensity Dimming
99% - 51%	Linear Dimming 99% - 51%	
50%	Linear Dimming 50%	
49% - 0%	Linear Dimming 49% - 0%	

BIOS SkyBlue® LED and White LED dim with a 1-to-1 ratio.





*While melanopic ratio remains constant, dimming/reducing light output will have an overall impact on Equivalent Melanopic Lux (EML). That is because EML = Vertical Lux * melanopic ratio. Therefore, if you reduce light levels by dimming the LEDs, you will reduce your effective EML, even when the melanopic ratio stays constant.

BIOS DYNAMIC + BIO-DIMMING™ DIMMING CONTROL CHARACTERISTICS

DIMMER SETTING	BIOS SKYBLUE® LED	WHITE LED	LIGHT OUTPUT	
100%* (Full On)	100%	100%	100%	Bio-Dimming
99% - 51%	100% - 0%	100%	100% - 90%	
50%	NO BIOS	100%	~90%	White LED Intensity Dimming
49% - 0%	NO BIOS	100% - 0%	Linear Dimming 90% - 0%	

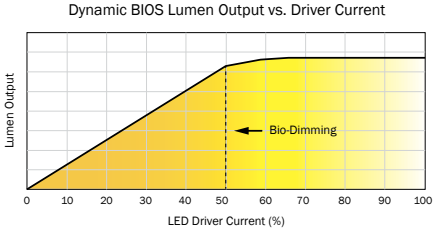
BIOS SkyBlue® maintained for maximum circadian impact.

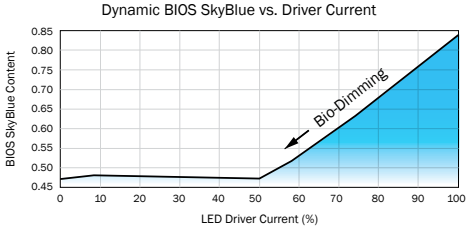
Light output remains relatively constant.

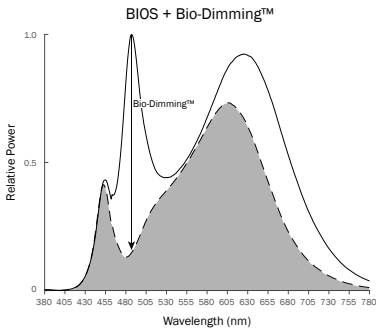
BIOS SkyBlue® removed to provide minimal circadian impact.

White LED output dims linearly.

**No unique wiring instructions required. However, Dynamic + Bio-Dimming™ option must be set up properly during initial startup to the desired light level setpoint. See installation guide for details.*







DRIVERS

PRODUCT CODE	DESCRIPTION
N	None. Choose when indirect lamping is not desired.
V00	0-10V dimming down to 0% (dim to off).
V01	0-10V dimming down to 1%.
V05	0-10V dimming down to 5% (Down to 10% for TUNE lamping).
P01	Driver supports both TRIAC Forward Phase 2-Wire and ELV Reverse Phase 3-Wire dimming controls.
LDE1	(LDE1) Lutron Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology.
TSERIES	Lutron T-Series Tunable White Class 2 LED Driver (For use with Lutron Quantum Control Systems)
ELDV0	eldoLED 0/10V dimming down to 0% (when choosing nLight Air integral sensors a compatible eldoLED LEDcode version will be specified)
ELDDW	eldoLED 0/10V dim-to-warm dimming down to 0% (specify with TUNE LED lamping. Driver will be programmed with LightShape dim-to-warm setting)
DALI	DALI flicker-free dimming down to 0%.
DMX	DMX flicker-free dimming down to 0%.
POEM	Molex CoreSync PoE LED Driver. Contact ALW to assist with your project.
POEI	IGOR PoE LED Driver. Contact ALW to assist with your project.
POEN	NuLEDS PoE LED Driver. Contact ALW to assist with your project.
POE	Specify a PoE driver of your choice. Fixture comes with low voltage leads and no LED driver. Contact ALW to assist with your project

*Most drivers can be programmed to specific dimming levels if desired. Contact ALW for specific dimming level requests.
ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. If there are specific components required for your application that aren't listed on this spec sheet, please contact ALW customer support today to specify a compatible solution of your choice.

DRIVER/LED LAMPING COMPATIBILITY

	STD	STD/BIOS	TUNE	RGB	RGB(W)	CA TITLE 24 JA8/JA10[18]	IEEE P1789 & HD TV STUDIO[19]
V00	●	●	●			●	
V01	●	●	●			●	
V05	●	●	●			●	
P01	●	●				●	
LDE1	●	●				●	●
TSERIES			●			●	●
ELDV0	●	●	PER REQUEST			●	●
ELDDW			●				
DALI	●	●	●			●	
DMX	●		●		●	PER REQUEST	PER REQUEST
POEM	PER REQUEST					●	●
POEI	PER REQUEST					●	●
POEN	PER REQUEST					●	●

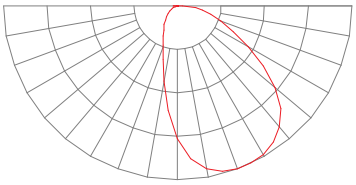
● - Indicates compatibility

*Standard lamping (STD) - LOW/MED/HI

[18]Fixtures specified with 90CRI 2700K, 3000K, 3500K, and 4000K lamping with applicable LED drivers have the ability to conform to California Title 24 JA8 and JA10 Appendices

[19]The following drivers conform to IEEE P1789 Flicker Standard: 'IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers'. These drivers may also be installed in HD TV Studio applications utilizing high frequency camera equipment.

PHOTOMETRICS

OPTIC	POLAR PLOT (CD)	MTG HEIGHT	LIGHT LEVEL (FC)	SPACING CRITERION (SC)[20] (0°- 180°) (90°- 270°)	MAX INTENSITY (CD)	OUTPUT (LM/FT)
HT		6 ft	26.5	1.21 1.76	1246.2	1160
		8 ft	14.9			
		10 ft	9.5			
		12 ft	6.6			
		14 ft	4.9			
		16 ft	3.7			

*Photometric calculations based on HI 4000K 80 CRI fixture combination. Actual results may vary in the field.
For footcandle and output multipliers refer to the ALW IES File Multipliers Chart.

[20]Spacing criterion refers to maximum distance luminaires can be spaced to provide uniform illumination on the working plane or surface.
Luminaire spacing = Spacing Criterion (SC) x Mounting Height (MH) (ex. 1.14 (SC) x 10' (MH) = 11.4' Luminaire Spacing).

ADDITIONAL OPTIONS & SPECIFICATIONS

LED PERFORMANCE

> 54,000 hours at 70% lumen maintenance, LM80 / TM-21

HOUSING

100% recyclable, extruded architectural grade 6061 aluminum with a 0.08” minimum wall thickness.

LENS

Integral 93% efficient, high-transmission optical lens shields lamping and provides superior diffusion.

REFLECTORS

Reflectors are formed from 0.040” thick aluminum, and finished in a titanium white powder coat.

SAFETY & REGULATORY

Fixtures specified with 90CRI, 2700K, 3000K, 3500K, and 4000K lamping with applicable LED drivers have the ability to conform to **California Title 24 JA8 and JA10** Appendices. EldoLED drivers can conform to IEEE P1789 Flicker Standard: ‘IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers .

Contact ALW customer support today and we can help you with your project requirements.

ETL Listed (U.S. & Canada). Suitable for dry or damp locations.
Conforms to UL std. 1598, Luminaires.
Certified to CSA std. C22.2#250.0:2008 Ed. 3+G1;G2.

Recessed models are Type IC Rated and suitable for installation with direct contact to building insulation.

WARRANTY

Limited 11-year warranty. Details: alw-inc.com/warranty

OPERATING TEMPERATURE

LuminaiRe should be installed and operated ONLY in dry environments where the ambient temperature ranges from -4°F to 122°F (-20°C to 50°C). Luminaire operation in environments outside the listed temperature range voids the warranty AND may damage the product or adversely impact lamp life, lumen output and color consistency.

CONTROLS, SENSORS, & LED DRIVER

ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. Our component portfolio is continually expanding to adopt to the latest technologies and specification needs. We currently support integration with Lutron, Enlighted, nLight, Cooper Wavelinx, eldoLED, Molex PoE, NuLEDS PoE, Igor PoE, Osram, Philips, and more. If there’s a component or system needed that you don’t see on the spec sheet please contact ALW customer support today so we can review your requirements.

WEIGHT

Approximately 3.5 lbs. per linear foot (not including downlight option). Weight may vary depending on mounting, downlight, and additional options selected.

CHICAGO PLENUM

Recessed fixtures for this product family are available to meet Chicago Plenum certification. For Chicago Plenum options please contact ALW.