SUPERPLANE 2.5R

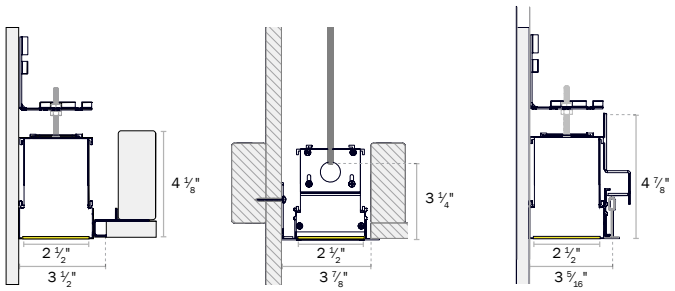
SP2.5R/PR | CONTROLROLL OPTICS | RECESSED PERIMETER

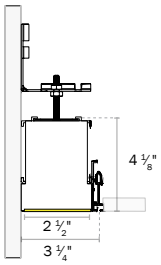
SPECIFICATIONS

PROFILE	2.5" Aperture
SIZES	2ft - 8ft sections
LED OUTPUT	350lm/ft - 1300lm/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	ControlRoll Optics - Continuous lens up to 250ft. Flush and regress lens options up to 3." Lambertian, Wall Graze, and Asymmetric optics available.
FINISHES	Black and White finish. 16 standard finishes and custom finishes available upon request.
MATERIAL	6063-T6 Extruded Aluminum
ENVIRONMENT	Dry or damp locations
WELL/UGR	See pages 6-7 for recommended options that contribute to meeting the WELL Building Standard™. UGR values available under 'Glare Control' on page 6.

*Safety and Performance information available on last page. Output and other specifications available on page 7.

DISTRIBUTIONS & PROFILES





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

Intertek · QuickShip Eligible · enlighted · VIVE by LUTRON · nLIGHT · COOPER Lighting Solutions · PoE Ready · molex · NuLEDs · igor · bios

ALW

PRODUCT SPECIFICATION SHEET

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

EXAMPLE: SP2.5R/PF — MUD — S5 — MED/90/3500K — V01 — CR/S — SW — UNV — EMB/1 — MLX — CP

1 2 3 4 5 6 7 8 9A 9B 9C

1. BASE MODEL* (CHOOSE 1)

QS ☐ **SP2.5R/PF** 2.5" Perimeter, flush mount

QS ☐ **SP2.5R/PR** 2.5" Perimeter, regressed-mount

☐ **SP2.5R/PR3** 2.5" Perimeter, 3" regressed-mount

*Quickship availability may vary. Contact ALW for more information.

2. CEILING TYPE (CHOOSE 1)

QS ☐ **TRIM**[1,2] Trimmed

QS ☐ **MUD** Trimless (mud-in drywall only)

QS ☐ **TGRID/9/16** 9/16" T-Grid

QS ☐ **TGRID/15/16** 15/16" T-Grid

QS ☐ **SLOT** 9/16" Slot

QS ☐ **ATZ/TGRID/9/16**[3,4] Armstrong® 9/16" T-Grid

QS ☐ **ATZ/TGRID/15/16**[3,4] Armstrong® 15/16" T-Grid

QS ☐ **ATZ/SLOT**[3,4] Armstrong® 9/16" Slot

[1]For install in wood, drywall, metal, etc.
[2]TRIM ceiling type not compatible with 3" regressed lens option (SP2.5R/PR3)
[3]Fits Armstrong 4" TechZone
[4]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. SHAPE/LENGTH* (CHOOSE 1 & ENTER LENGTH IN FT) - FOR CUSTOM ANGLES, CONTACT ALW

QS ☐ **S__** Individual/Straight Run Section *(enter length in product code above, ex. S5)*

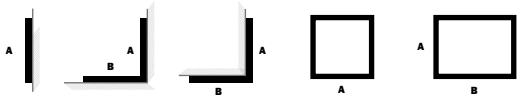
QS ☐ **LI_-_** L-Shaped, Inside Joint Configuration *(enter side lengths A and B, ex. LL5-7)*

QS ☐ **LO_-_** L-Shaped, Outside Joint Configuration *(enter side lengths A and B, ex. LR5-7)*

QS ☐ **SQ__** Square Configuration *(enter side length A, ex: SQ5)*

QS ☐ **R__** Rectangular Configuration *(enter side lengths A and B, ex. R5-7)*

*Lengths greater than 8' consist of multiple individual housing sections joined together, and include ONE continuous ControlRoll lens for the entire straight/linear run. Lengths are nominal and may vary based on lamping and other specification selections. Consult ALW when exact lengths are required.
*Shape orientation top/plan view. For additional shape configurations, consult factory.



(S) (LI) (LO) (SQ) (R)

4. LED LAMPING (CHOOSE 1 FOR EACH)

A. OUTPUT[5]

QS ☐ **MIN** (350 lm/ft)

QS ☐ **LOW** (475 lm/ft)

QS ☐ **MED** (750 lm/ft)

QS ☐ **HI** (1030 lm/ft)

QS ☐ **MAX** (1250 lm/ft)

☐ **RGB** (140 lm/ft)

☐ **TUNE** (2700K-6500K, 90 CRI, 475/515 lm/ft)

☐ **RGBW** (3500K, White, 80 CRI, 140/220 lm/ft)

☐ **CSTM____**[6] (Enter lumens in product code above. Ex. 0100=100lm/ft)

B. CRI[7]

☐ **NO CRI/CCT***

QS ☐ **80**

QS ☐ **90**

☐ **BIOS**[8] (STATIC BIOS)

☐ **BIOSD**[8] (DYNAMIC BIOS)

C. CCT[7]

☐ **2700K**[9]

QS ☐ **3000K**

QS ☐ **3500K**

QS ☐ **4000K**

*Choose when TUNE, RGB, or RGBW is desired output
[5]For delivered lumens and watts, see 'Performance Details'
[6]Consult ALW for custom lumen packages.
[7]CRI/CCT options not applicable for TUNE, RGB, or RGBW lamping
[8]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 9-10 for details.
[9]90CRI only. 2700K is not available in BIOS options.

5. DRIVER* (CHOOSE 1)

QS ☐ **V00** (0-10V, dim to 0%)

QS ☐ **V01** (0-10V, dim to 1%)

QS ☐ **V05** (0-10V, dim to 5%)

☐ **P01** (ELV/TRIAC phase dim to 1%)

☐ **LDE1** (Lutron ECOSYS1, 0-10V, dim to 1%)

☐ **TSERIES** (Lutron HI-Lume, Phase dim, 2-wire to 1%)

☐ **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**[10] (POE Ready)

*Driver specifications provided upon request. *See page 11 for driver details.*
*Refer to all 'Driver', 'Sensor' and lamping charts for compatibility.
[10]Choose desired PoE solution not listed Contact customer service to review and confirm the PoE system of your choice.

6. LENS (CHOOSE 1)

QS ☐ **CR/S** ControlRoll lens with diffused, lambertian distribution

QS ☐ **CR/WG** ControlRoll lens with wall graze optics

QS ☐ **CR/ASY** ControlRoll lens with asymmetric/ wall wash distribution (peak intensity 25°)

CR/S CR/WG CR/ASY

7. FINISH* (CHOOSE 1)

QS ☐ **SW** ☐ Satin White

QS ☐ **SB** ■ Satin Black

*Additional finish options available upon request.

8. VOLTAGE (CHOOSE 1)

QS ☐ **UNV** Universal Voltage (120VAC-277VAC)

☐ **347** 347 Volt *(Driver options may be limited. Not available with EMB)*

9a. EMERGENCY OPTIONS (OPTIONAL, CHOOSE 1)

QS ☐ **EMB/__**[11] Emergency Battery *(indicate QTY — each battery powers 4ft. section @ 1492lm. Not available in 347 V)*

QS ☐ **EMC/__**[11] Emergency Circuit *(indicate QTY of 4ft sections to be illuminated by emergency circuit)*

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

CONTINUES ON NEXT PAGE →

QS = QuickShip-qualifying option. For the entire luminaire configuration to be QuickShip-eligible, ALL options specified in the configuration must be ones notated with "QS". NOTE: Maximum 800 ft. of QuickShip-eligible product per order.

PRODUCT SPECIFICATION SHEET CONT'D

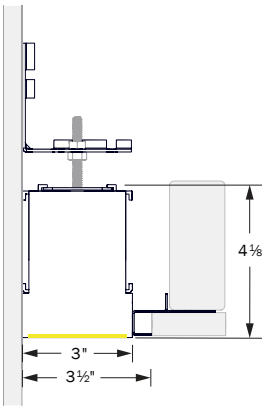
9b. SENSOR OPTIONS* (OPTIONAL, CHOOSE 1)		9c. CERTIFICATION OPTIONS
☐ **N** (None)	☐ **NLT/INT/__** (nlight wired, integral occ/daylight sensor)	QS ☐ **CP** Chicago Plenum Certification
☐ **WLNX/INT/__** (Cooper Wavelinx, integral)	☐ **NLT** (nLight wired remote connection)	
☐ **WLNX/__** (Cooper Wavelinx, remote)	☐ **NLTAIR/INT/__** (nLight AIR, integral)	
QS ☐ **ENLGHT/__** (Enlighted, remote)	☐ **NLTAIR** (nLight AIR, remote connection)	
QS ☐ **ENLGHT/INT/__** (Enlighted, integral)	☐ **OS/PH/INT/__** (Acuity 0-10VDC integral occ/daylight sensor)	
☐ **VRF/__** (Lutron Vive, integral)	☐ **OS/INT/HV/__** (Legrand Wattstopper High Voltage integral occ/daylight sensor)	
☐ **VDO/__** (Lutron Vive, integral+ occ/daylight sensor)		
☐ **FCJS/__** (Lutron, remote)	QS ☐ **OS/PH/HV/__** (Hubbel WASP remote occ/daylight sensor)	
☐ **FCJS/S/__** (Lutron, remote + occ/daylight sensor)		
☐ **MLX/INT/__** (Molex POE, integral)		

*Quickship availability on occupancy and photocell/daylight sensors may vary. Contact ALW for more information.
*Default quantity is 1 sensor per 8ft, type alternate quantity into product code above if desired. Sensor descriptions available on page 12.
*Not all sensors are compatible with all drivers. See 'Driver', 'Sensor' and lamping charts for driver details and sensor compatibility.

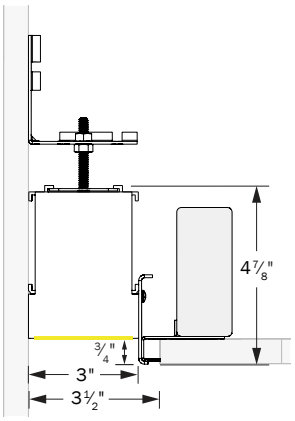
QS = *QuickShip-qualifying option. For the entire luminaire configuration to be QuickShip-eligible, ALL options specified in the configuration must be ones notated with "QS". NOTE: Maximum 800 ft. of QuickShip-eligible product per order.*

MECHANICAL DIAGRAMS

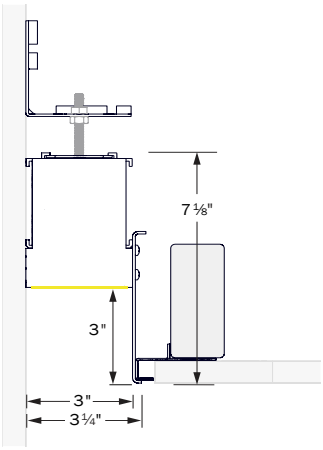
MUD



SP2.5R/PF
FLUSH

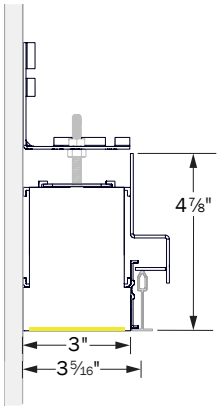


SP2.5R/PR
3/4" REGRESS

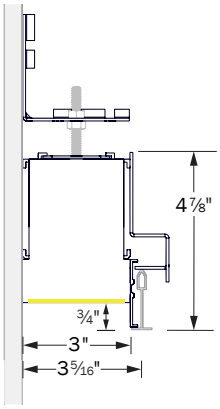


SP2.5R/PR3
3" REGRESS

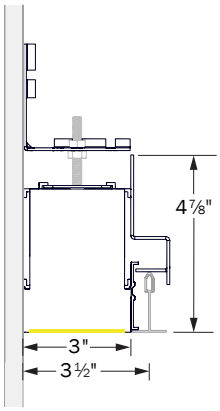
T-GRID



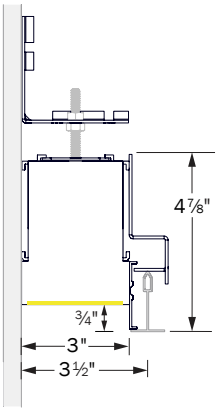
SP2.5R/PF
ATZ/TGRID/9/16



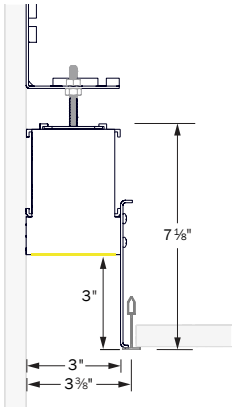
SP2.5R/PR
ATZ/TGRID/9/16



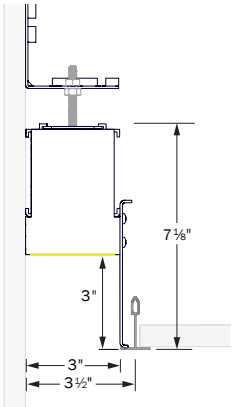
SP2.5R/PF
ATZ/TGRID/15/16



SP2.5R/PR
ATZ/TGRID/15/16



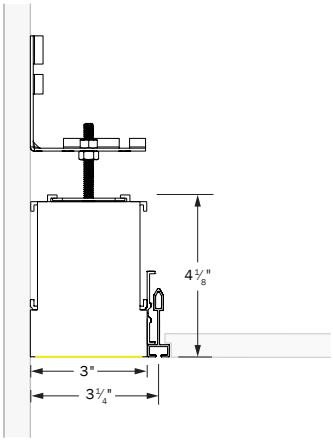
SP2.5R/PR3
ATZ/TGRID/9/16



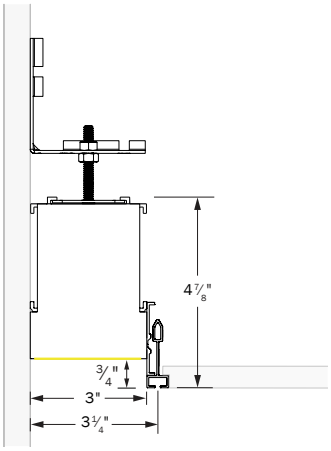
SP2.5R/PR3
ATZ/TGRID/15/16

MECHANICAL DIAGRAMS CONT'D

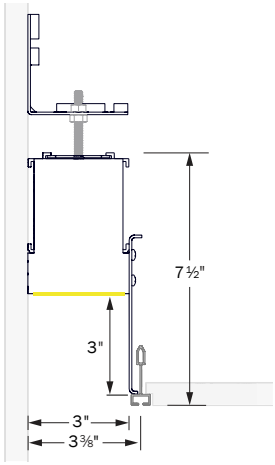
SLOT



SP2.5R/PF
ATZ/SLOT

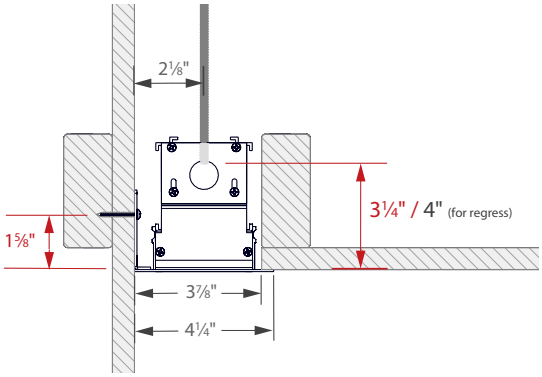


SP2.5R/PR
ATZ/SLOT



SP2.5R/PR3
ATZ/SLOT

TRIM



SP2.5R/PF & PR
TRIM

SPECIFYING FOR THE WELL BUILDING STANDARD™ - WELL™

ALW is committed to providing the highest quality luminaires for a multitude of applications, with many versatile lighting solutions that contribute to satisfying the WELL Building Standard. Below is a quick guide to assist you in specifying appropriate product configurations for WELL features. Links to official WELL standards can be found here.

CIRCADIAN LIGHTING DESIGN
FEATURE L03

The Circadian Lighting Design feature requires projects to provide users with appropriate exposure to light for maintaining circadian health and aligning the circadian rhythm with the day-night cycle.

To conform to these requirements, the project must meet one of the following 4 light level options (a, b, c, or d) below. These light levels are measured on the vertical plane at eye level of the occupant. The light levels are achieved at least between the hours of 9 a.m. and 1 p.m. and may be lowered after 8 p.m. at night.

DESIGNING WITH ELECTRIC LIGHT ONLY	DESIGNING WITH BOTH ELECTRIC LIGHT & DAYLIGHT	POINTS
a. At least 150 EML [136 melanopic equivalent daylight D65]	b. The project achieves at least 120 EML [109 melanopic equivalent daylight D65] with electric light and at least 2 points in Feature L05: Enhanced Daylight Access	1
c. At least 240 EML [218 melanopic equivalent daylight D65]	d. The project achieves at least 180 EML [163 melanopic equivalent daylight D65] with electric light and at least 2 points in Feature L05: Enhanced Daylight Access	3

Choose from a BIOS Static or BIOS Dynamic light engine to assist in a healthy, circadian lighting design. CCT, CRI, Luminous Flux Multipliers, and Melanopic Ratios are shown below for easy specification.

CIRCADIAN LIGHTING DESIGN (3PT MAX)	BIOS STATIC (BIOS)			BIOS DYNAMIC (BIOSD)			HOW TO SPECIFY
CCT	3000K	3500K	4000K	3000K	3500K	4000K	1. Select **BIOS** or **BIOSD** for **LED LAMPING** 2. Select the appropriate Lumen **OUTPUT** 3. Select the appropriate **CCT**
CRI / R9	83 / 80+	83 / 80+	83 / 80+	83 / 80+	83 / 80+	83 / 80+	
LUMINOUS FLUX MULTIPLIER	0.95	0.98	1.00	0.95	0.98	1.00	See BIOS LED Lamping and Performance Details at the back of this spec sheet for lumen outputs, COI index values, and other additional information.
MELANOPIC RATIO (R)*	0.70	0.80	0.90	0.74	0.83	0.95	

GLARE CONTROL
FEATURE L04

Glare is defined as excessive brightness of a light-source, excessive brightness-contrasts and excessive quantities of light. Glare has been associated with a host of health issues that range from visual discomfort and eye fatigue to headaches and migraines.

To conform to Glare Control requirements, each luminaire must meet one of the following options (a, b, or d) for regularly occupied spaces.

GLARE CONTROL CRITERIA (3PT MAX)	COMPLIANT	VALUE	HOW TO SPECIFY
a. Indirect (100% emission above horizontal)	-	-	-
b. Unified Glare Rating (UGR)*	✓	14.67 @ 16ft (MAX Output) 12.63 @ 20ft (MAX Output)	1. Select **ANY** output for **LED LAMPING** 2. Select **ANY** option for **LENS**
c. Shielding Angle	No	-	-
d. Max. Luminance (45°–90°) Max. Intensity (45°–90°)	✓	4668 cd/m² @ MED Output 312.21 cd @ MED Output	1. Select an output of **MIN or MED** for **LED LAMPING** 2. Select **CR/WG** (ControlRoll Wall Graze Lens) for **LENS**

**Advertised UGR values are averages and were calculated in AGi32 using the following method: 1) A 5.4m x 3.6m room was created and fixtures were spaced 2m apart center-to-center. Calculations were performed at 16ft. and 20ft.*

SPECIFYING FOR THE WELL BUILDING STANDARD™ - WELL™ (CONTINUED)

ELECTRIC LIGHT QUALITY - PART 1: COLOR RENDERING QUALITY + PART 2: FLICKER
FEATURE L07

Using light sources that have characteristics similar to daylight, including high color rendering and minimal flicker can improve comfort and well-being of users in a space and contribute to creating a healthy environment.

Part 1: Each luminaire must meet one of the following requirements (a or b) for regularly occupied spaces.
Part 2: Each luminaire must meet the IEEE 1789-2015 Standard Recommended Practice to manage flicker.

PART 1 - ENSURE COLOR RENDERING QUALITY (1PT MAX)	COMPLIANT	VALUE	HOW TO SPECIFY
a. CRI > 90	✓	CRI = 93 - 95	• Select **90** (90CRI) for **LED LAMPING**
b. CRI > 80 with R9 > 50	✓	CRI = 83, R9 > 90	• Select **BIOS** or **BIOSD** for **LED LAMPING**
c. IES Rf ≥ 78, IES Rg ≥ 100, -1% ≤ IES Rcs, h1 ≤ 15%	No	-	-
PART 2 - MANAGE FLICKER (1PT MAX)	**COMPLIANT**	**VALUE**	**HOW TO SPECIFY**
Meets IEEE 1789-2015 Standard Recommended Practice	✓	Modulation = 1% Flicker Frequency = 120 - 2000Hz	• Select **V05, V01, LDE1, DALI** or **DMX** for **LED DRIVER**

PERFORMANCE DETAILS

OUTPUT	OPTIC TYPE	DELIVERED LUMENS/FT	EFFICACY LM/W/FT	WATTS/FT[15]	CRI OPTIONS	CCT OPTIONS
MIN[12]	CR/S	350	113	3.1	80+ 90+	2700K (90CRI Only) 3000K 3500K 4000K 5000K
	CR/WG	370	119			
LOW[12]	CR/S	475	113	4.2		
	CR/WG	500	119			
MED[12]	CR/S	750	115	6.5		
	CR/WG	775	119			
HI[12]	CR/S	1030	117	8.8		
	CR/WG	1050	119			
MAX[12]	CR/S	1250	117	10.7		
	CR/WG	1300	121			
TUNE	CR/S	WW: 475, CW: 515	WW: 113, CW: 123	4.2/channel	90+	2700K - 6500K
	CR/WG	WW: 490, CW: 550	WW: 117, CW: 131			
RGB[13]	CR/S	140	28	5	N/A	N/A
	CR/WG	140	28			
RGBW[14]	CR/S	RGB: 140, W: 220	RGB: 28, W: 44	5	80+ (White Chip)	3500K (White Chip)
	CR/WG	RGB: 140, W: 220	RGB: 28, W: 44			

[12]Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.
[13]Performance calculations are derived from LM-79 test with all RGB LEDs illuminated (Red, Green, Blue).
[14]Performance calculations are derived from the following LM-79 tests: 1) RGB LEDs illuminated, 2) RGB+W LEDs illuminated, 3) White LED only illuminated.
[15]Minimum driver efficiency is 84%. Divide W/ft value by driver efficiency to get estimated power consumption (W/ft) of fixture.

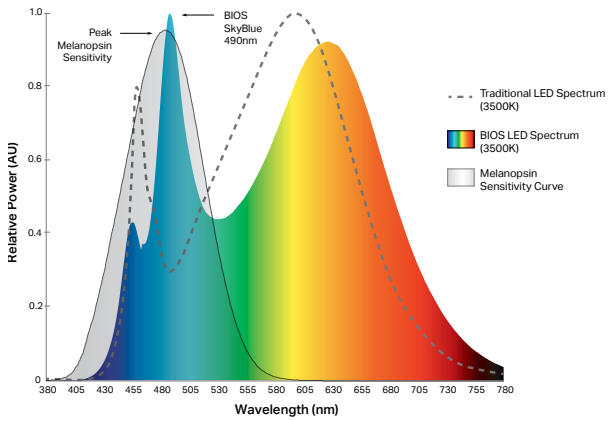
TM-30-18 DETAILS (90 CRI LAMPING)

CCT	CRI (Ra)	CRI (R9)	TM-30 Rf	TM-30 Rg	Duv
2700K	94	57	92	100	-0.0012
3000K	93	55	91	100	-0.0012
3500K	93	55	90	98	-0.0002
4000K	92	58	89	97	-0.0003

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[16]	DELIVERED LUMENS (LM/FT) DIRECT *CR/S* *CR/WG*	EFFICACY (LM/W) DIRECT *CR/S* *CR/WG*	WATTS (W/FT)	CRI
MIN	350 370	113 119	3.1	82+
LOW	475 500	113 119	4.2	
MED	750 775	115 119	6.5	
HI	1030 1050	117 119	8.8	
MAX	1250 1300	117 129	10.7	

BIOS LED PERFORMANCE DETAILS

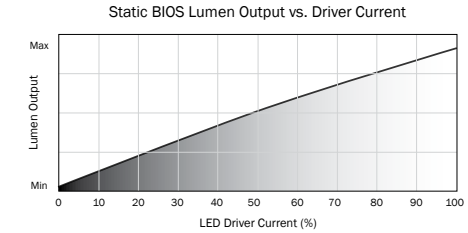
CCT	CRI (Ra) *Static BIOS* *Dynamic BIOS*	CRI (R9) *Static BIOS* *Dynamic BIOS*	DAYTIME M/P RATIO[17] *Static BIOS* *Dynamic BIOS*	NIGHTTIME M/P RATIO[18] *Static BIOS* *Dynamic BIOS*	COI[19] *Static BIOS* *Dynamic BIOS*
3000K	82 83	94 90	0.70 0.73	0.70 0.45	3.0 3.3
3500K	83 83	91 90	0.80 0.84	0.80 0.50	3.1 3.1
4000K	83 83	91 90	0.90 0.95	0.90 0.55	3.1 3.1

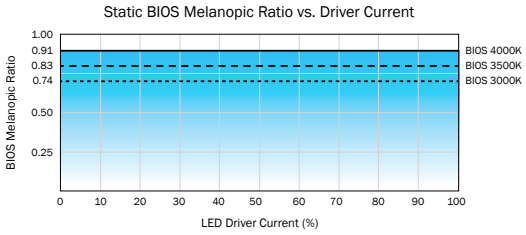
[16] *Performance calculations are based on LM-79 test of BIOS 4000K, MAX output. MIN, LOW, MED and HIGH calculations are extrapolated values.*
[17] *Melanopic to photopic (M/P) ratios are used to help calculate equivalent melanopic lux (EML) values which is the metric used for circadian lighting in the WELL™ Building Standard.*
[18] *Static LED nighttime M/P ratios remain the same as daytime M/P ratios as BIOS SkyBlue®® always remains at full output.*
[19] *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%	

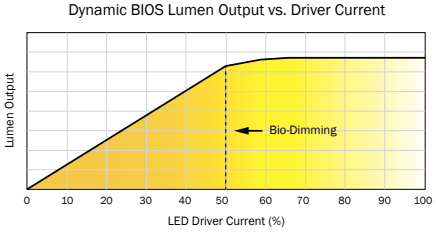
BIOS SkyBlue® maintained for maximum circadian impact.

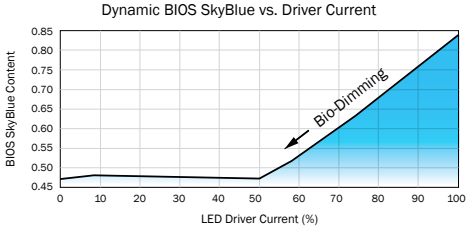
Light output remains relatively constant.

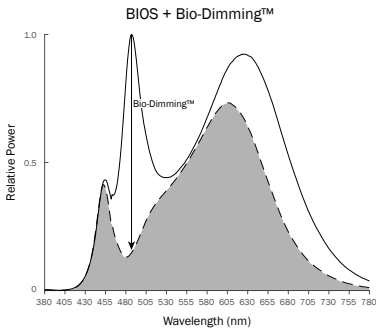
BIOS SkyBlue® removed to provide minimal circadian impact.

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.
ELDV0	eldoLED 0/10V dimming down to 0% (when choosing nLight Air integral sensors a compatible eldoLED LEDcode version will be specified)
TSERIES	Lutron T-Series Tunable White Class 2 LED Driver (For use with Lutron Quantum Control Systems)
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[20]	IEEE P1789 & HD TV STUDIO*[21]
V00	●	●	●			●	
V01	●	●	●			●	
V05	●	●	●			●	
P01	●	●	●			●	
LDE1	●	●				●	●
ELDV0	●	●	PER REQUEST			●	●
TSERIES			●			●	●
ELDDW	●		●			●	●
DALI	●	●	●			●	
DMX	●		●		●	PER REQUEST	PER REQUEST
POEM			PER REQUEST	PER REQUEST	PER REQUEST	●	●
POEI			PER REQUEST	PER REQUEST	PER REQUEST	●	●
POE			PER REQUEST	PER REQUEST	PER REQUEST	●	●

● - Indicates compatibility

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

[20]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

[21]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.

SENSORS

	PRODUCT CODE	DESCRIPTION	Location
	N	None. Choose when sensors are not desired.	-
COOPER WAVELINX	**WLNX/INT**	Wavelinx Wireless integral occ/daylight sensor (WaveLinx part: OEM-WAA)	Integral
	WLNX	Fixture is built with 0/10V wiring to connect to Wavelinx Wireless sensors and power/relay packs (sensors and equipment not provided by ALW)	Remote
ENLIGHTED™	**ENLGHT/INT**	Enlighted integral connected lighting smart sensor - occ/daylight/networking (Enlighted Part: SU-5E-CL)	Integral
	ENLGHT	Enlighted® remote connected lighting smart sensor - occ/daylight/networking (Enlighted Part: SU-5S-H-CL)	Remote
LUTRON VIVE	**VRF**	Lutron® Vive integral RF wireless fixture control (Lutron Part: DFCSJ-OEM-RF)	Integral
	VDO	Lutron® Vive integral RF wireless fixture control + daylight/occ sensor (Lutron Part: DFCSJ-OEM-OCC)	Integral
	FCJS	Lutron® Vive remote RF wireless fixture control (Lutron Part: FCJS-ECO or FCJS-010)	Remote
	FCJS/S	Lutron® Vive remote RF wireless fixture control + daylight/occ sensor (Lutron Part: FCJS-ECO or FCJS-010, & FC-Sensor)	Remote
MOLEX POE CORESYNC	**MLX/INT**	Molex CoreSync PoE Integral Fixture-Mounted Sensor R - occ/daylight/temperature/humidity (Molex Part: 182091-1000)	Integral
NLIGHT WIRED®	**NLT/INT**	Fixture is built with nLight Wired integral components specified by agency. Contact ALW to review project details.	Integral
	NLT	Fixture is built to connect to nLight Wired remote components specified by agency. Contact ALW to review project details.	Remote
NLIGHT WIRELESS®	**NLTAIR/INT**	Fixture is built with nLight Air (Wireless) components specified by agency. Contact ALW to review project details.	Integral
	NLTAIR	Fixture is built to connect to nLight Air (Wireless) remote components specified by agency. Contact ALW to review project details.	Remote
VALUE SENSORS	**OS/PH/INT**	Acuity 0-10VDC Integral occ/daylight sensor (Acuity Part: MSD 7 ADC WH) Automated Dimming Functionality Only. Manual Dimming not available. Customer to set sensor functionality in the field. Lowest dim level depends on driver.	Integral
	OS/INT/HV	Legrand Wattstopper **High Voltage** Integral occ/daylight on/off sensor (Part: FS-355) On/Off or Manual Dimming Functionality Only (based on occupancy and daylight). Connect fixture 0/10V wires to wall dimmer in the field. No Automated Dimming available.	Integral
	OS/PH/HV	*Hubbell WASP* **High Voltage** *0-10V remote surface mount occ/daylight sensor. 120/277/347VAC input (Hubbell Part: WSPDSMUNV)* *Automated Dimming Functionality: Connect fixture 0/10V wires to sensor in the field. Adjust occ/photocell settings as desired.* *On/Off or Manual Dimming Functionality: Turn photocell functionality OFF. Cap off 0/10V wires on sensor.* *Connect fixture 0/10V wires to wall dimmer in the field.*	Remote

*All connected lighting sensors/systems must be programmed in the field by an electrical commissioner familiar with the system. Refer to the 'Sensor Compatibility' and 'Driver/Sensor Compatibility' charts to specify compatible sensors, LED lamping, and LED driver systems.

SENSORS CONT'D

SENSOR COMPATIBILITY								
PRODUCT CODE		SENSOR TYPE	MAX MT HT	CA TITLE 24	STD*	TUNE	RGB	RGB(W)
COOPER WAVELINX	WLNX/INT	OCCUPANCY/PHOTOCELL	15 ft	●	●			
	WLNX		15 ft	●	●			
ENLIGHTED™	ENLGHT/INT	OCCUPANCY/PHOTOCELL	15 ft	●	●	CUSTOM REQUEST		
	ENLGHT	OCCUPANCY/PHOTOCELL	40 ft	●	●	CUSTOM REQUEST		
LUTRON VIVE	VRF	WIRELESS CONTROL	12 ft	●	●			
	VDO	OCCUPANCY/PHOTOCELL	12 ft	●	●			
	FCJS	WIRELESS CONTROL	12 ft	●	●			
	FCJS/S/	OCCUPANCY/PHOTOCELL	12 ft	●	●			
MOLEX POE CORESYNC	MLX/INT	OCCUPANCY/PHOTOCELL TEMPERATURE/HUMIDITY	16 ft	●	●			
NLIGHT WIRED®	NLT/INT	OCCUPANCY/PHOTOCELL	15 ft	●	●			
	NLT		15 ft	●	●			
NLIGHT WIRELESS®	NLTAIR/INT	OCCUPANCY/PHOTOCELL	15 ft	●	●			
	NLTAIR		15 ft (average)	●	●			
VALUE SENSORS	OS/PH/INT	OCCUPANCY/PHOTOCELL	15 ft		●			
	OS/INT/HV	OCCUPANCY/PHOTOCELL	15 ft	●	●	■	■	■
	OS/PH/HV	OCCUPANCY/PHOTOCELL	45 ft	●	●	■	■	■

● - Indicates compatibility ■ - On/off sensor functionality only

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

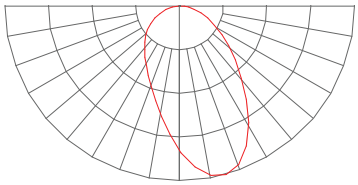
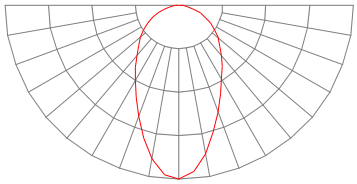
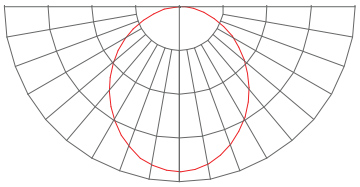
SENSORS (CONT'D)

DRIVER/SENSOR COMPATIBILITY									
	WLNX/INT	WLNX	ENLGHT/ INT	ENLGHT	VRF	VDO	FCJS	FCJS/S /	MLX/INT
V00	●	●					●	●	
V01	●	●					●	●	
V05	●	●					●	●	
P01									
LDE1					●	●	●	●	
ELDV0									
TSERIES									
ELDDW									
DALI			●	●	●	●			
DMX									
POEM									●

● - Indicates compatibility
▲ - Fixture can have automated dimming via sensor OR on/off functionality and manual dimming
■ - On/off sensor functionality only

DRIVER/SENSOR COMPATIBILITY CONT'D								
	NLT/INT	NLT	NLTAIR/INT	NLTAIR	OS/PH/INT	OS/INT/HV	OS/PH/HV	NO SENSOR
V00					●	■	▲	●
V01					●	■	▲	●
V05					●	■	▲	●
P01						■	■	●
LDE1								●
ELDV0	●	●	●	●	●	■	▲	●
TSERIES						■	■	●
ELDDW						■	■	●
DALI						■	■	●
DMX						■	■	●
POEM								●
POEI	Sensor types will depend on the PoE system configuration. Contact ALW for details.							
POEN	Sensor types will depend on the PoE system configuration. Contact ALW for details.							
POE	Sensor types will depend on the PoE system configuration. Contact ALW for details.							

PHOTOMETRICS

OPTIC	POLAR PLOT (CD)	MTG HEIGHT	LIGHT LEVEL (FC)	SPACING CRITERION (SC)[22] (0°- 180°) (90°- 270°)	MAX INTENSITY (CD)	OUTPUT (LM/FT)
CR/ASY[23]		2 - 2.5 ft RECOMMENDED DISTANCE FROM WALL		1.14 1.30	1328	1300
CR/WG		6 ft	39.6	.8 1.12	1424.7	1300
		8 ft	22.3			
		10 ft	14.2			
		12 ft	9.9			
		14 ft	7.3			
		16 ft	5.6			
CR/S		6 ft	25.8	1.16 1.2	927	1250
		8 ft	14.5			
		10 ft	9.3			
		12 ft	6.4			
		14 ft	4.7			
		16 ft	3.6			

*Photometric calculations based on MAX 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.

[22]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)

[23]Recommended distance from wall calculated at 10ft mounting height

ADDITIONAL OPTIONS & SPECIFICATIONS

LED PERFORMANCE

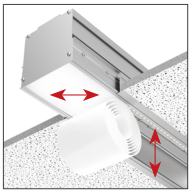
> 54,000 hours at 70% lumen maintenance, LM80 / TM-21

HOUSING

100% recyclable, extruded architectural grade 6063 aluminum with a 0.09” minimum wall thickness.

CONTROLROLL LENS OPTICS

The optically engineered ControlRoll lens provides smooth, uniform, and seamless illumination for linear lengths of 250' while dynamically controlling output and reducing glare. The ControlRoll lens rolls out and snaps into the housing channel for easy installation.



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.

WARRANTY

Limited 5-year warranty. Details: alwusa.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 3.4lbs. per linear foot.Weight may vary depending on additional options selected.

CHICAGO PLENUM

Recessed fixtures for this product family are available to meet Chicago Plenum certification.