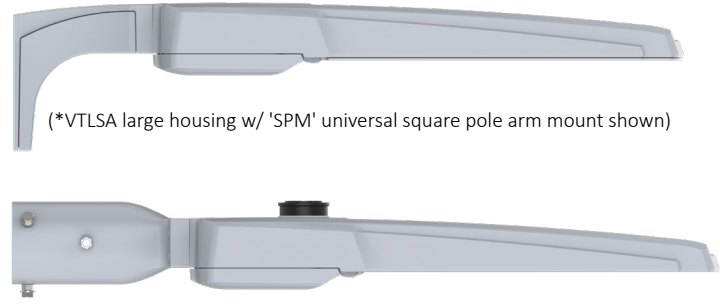


VersaTEK Large LED Site & Area Series

VTLSA Specification Data Sheet

Luminaire Data

Weight	27.6 lbs [12.5 kg] ('SPM' mount)
	28.4 lbs [12.9 kg] ('RPM' mount)
	28.7 lbs [13.0 kg] ('MAF' mount)
	28.7 lbs [13.0 kg] ('ASPM' mount)
	29.3 lbs [13.3 kg] ('ARPM' mount)
	31.5 lbs [14.3 kg] ('WM' mount)
	35.5 lbs [16.1 kg] ('WMSC' mount)
	33.1 lbs [15.0 kg] ('AWM' mount)
	36.6 lbs [16.6 kg] ('AWMSC' mount)



(*VTLSA large housing w/ 'SPM' universal square pole arm mount shown)

(*VTLSA large housing w/ 'MAF' horizontal mast arm fitter mount & optional 'PCR7CR' shown)

Ordering Information

Sample Catalog No. VTLSA-216A-MV-40K8-T3R-WH-CF-P7-SPM-D4I-TLR4U-TB-SP2-WL1-PWRD-SF277

Product	LED Code	Voltage	Color Temp CRI	Optical Distribution	Finish*	Performance Code	Mounting Options
VTLSA VersaTEK Large Site & Area	216A 216 LEDs Gen-A	MV 120-277V HV 347-480V	27K7 2700K, 70CRI 30K7 3000K, 70CRI 40K7 4000K, 70CRI 50K7 5000K, 70CRI 30K8 ¹ 3000K, 80CRI 40K8 ¹ 4000K, 80CRI 50K8 ¹ 5000K, 80CRI	NR Narrow Roadway MR Medium Roadway WR Wide Roadway T2R Type-2R T2F Type-2F T3R Type-3R T3F Type-3F T4R Type-4R T4F Type-4F T5 Type-5 AFR Auto Front Row ORR Optics Rotated Right ORL Optics Rotated Left	BK Black DB1 Dark Bronze (RAL8019) WH White GY Gray CF Coastal Finish *Consult factory for custom finish options, pricing & leadtimes.	P1 P2 P3 P4 P5 P6 P7 (see Page 3 for details)	SPM Universal Square Pole Arm Mount RPM Universal Round Pole Arm Mount MAF Horizontal Mast Arm Fitter (compatible w/ 1-5/8", 2-3/8" and 3" O.D. tenons) WM Wall Mount Fixed (compatible w/ 3" & 4" square/octagonal recessed J-boxes) WMSC Wall Mount Fixed w/ Surface Conduit J-Box AWM Adjustable Wall Mount (compatible w/ 3" & 4" square/octagonal recessed J-boxes) AWMSC Adjustable Wall Mount w/ Surface Conduit J-Box ASPM Universal Square Pole Adjustable Arm Mount ARPM Universal Round Pole Adjustable Arm Mount

Driver* & Control Options (*0-10V drivers are standard)		General Options	
D4I ^{2,5}	DALI D4i Driver	TFL	Tamper free latch (driver electrical door)
TLR4U ^{2,3,5}	DALI 4-PIN Twist Lock Receptacle (upper of housing receptacle location)	TB	3-position Terminal Block
TLR4L ^{2,3,5}	DALI 4-PIN Twist Lock Receptacle (lower driver door receptacle location)	SP2 ¹¹	20kV/10kA Extreme Surge, Fail-to-On
NB01P ^{2,4}	LEOLink 7-PIN Smart Controller (120-277V)	LSSP2	20kV/10kA Extreme Surge, Fail-to-Off
PCR7CR ^{2,9}	ANSI 7-wire Control Ready Receptacle	WL	Wattage Label, ANSI C136.15-2015 compliant
SC	Shorting Cap (factory installed)	WL1	Wattage Label, ANSI C136.15-2020 compliant
LLPC ⁵	Long Life Photocontrol	DSC	Optional Driver Door Safety Cable
PS ⁶	Field Adjustable Performance Selector	PWRD	Power Door Option (tool-free removable door w/ serviceable electrical items)
PND1 ⁷	Part Night Dimming V1	SFXXX ¹²	Single Fuse ('XXX' = specify 120, 277, 347V)
PND2 ⁷	Part Night Dimming V2	DFXXX ¹²	Double Fuse ('XXX' = specify 208, 240, 480V)
PND3 ⁷	Part Night Dimming V3	BLS ¹³	Enhanced Back Light Shield (factory installed)
MSL3 ^{8,9}	Motion Sensor w/ L3 Lens	VHS	80 Degree Cutoff Shield (factory installed)
MSL7 ^{8,9}	Motion Sensor w/ L7 Lens	FSS ¹³	Front Side Shield (factory installed)
MSL3P ^{8,10}	Motion Sensor w/ L3 Lens w/ PCR7	CSS ¹³	Cul-de-sac Shield (factory installed)
MSL7P ^{8,10}	Motion Sensor w/ L7 Lens w/ PCR7		

General Accessories*	
Shield Accessories	
TBS-VTL	Top, Bottom Shield
LRS-VTL	Left, Right Side Shield
4SS-VTL	4-sided Shield
BDS-VTL	Barn Door Shield
VS-VTL	Poly Vandal Shield
WG-VTL	Wire Guard
BLS-VTL ¹³	Enhanced Backlight Shield (snap-on)
VHS-VTL	80-Degree Cutoff Shield (snap-on)
FSS-VTL ¹³	Front Side Shield (snap-on)
CSS-VTL ¹³	Cul-de-sac Shield (snap-on)
BSK	Bird Deterrent Spider Kit
Controls Accessories	
NB01PSS ¹⁴	NB01P Ships Separately
LLPCM	Long Life Photocontrol MV
LLPCHV	Long Life Photocontrol HV
FSIR100	MS Configuration Tool
*Accessories are ordered & shipped separately, not to be included in the luminaire's catalog number. (requires field installation)	

- 80CRI option only available in 3000K, 4000K & 5000K CCTs and may have longer leadtimes (contact factory).
- For full 100% DALI functionality a 'PCR7CR', 'TLR4U' or 'TLR4L' must be selected w/ 'D4I' DALI driver option. DALI compatible node or sensor (by others). 'D4I' DALI driver not compatible w/ 'NB01P' smart controller.
- 'TLR4U' & 'TLR4L' twist lock receptacle options requires 'D4I' driver option to be selected.
- 'NB01P' requires 'LPCR7CR' option, only available in 'MV' 120-277V (contact factory for 'HV' 347-480V availability). 'NB01P' is a cellular based NEMA 7-PIN Smart Controller, 10-YR data (200MB), RenAI subscription included.
- 'LLPC' requires 'PCR7CR' option to be selected (does not ship installed, included w/ luminaire).
- 'PS' Performance Selector enables field adjustable light output dimming control from specified Performance Code, not compatible with DALI driver option (see pg.4 for details).
- 'PND' options only available w/ 'MV' 120-277V (contact factory for 'HV' 347-480V availability).
- Motion Sensor options only available w/ 'SPM', 'RPM', 'MAF', 'WM' and 'WMSC' horizontal mounting options.
- 'MSL3', 'MSL7' motion sensors require secondary controls for ON/OFF capability (ex. time clock or 0-10V by others). Contact factory for Motion Sensor availability w/ 'PCR7CR' control ready receptacle for use with wireless 7-PIN control node (by others).
- 'MSL3P', 'MSL7P' motion sensors includes a PCR7 photocontrol receptacle for use with a twist lock photocontrol for ON/OFF capability (for use with our 'LLPC' or photocontrol by others, PINs 6 & 7 are not wired for controls, not compatible w/ wireless nodes).
- 10kV/5kA surge, fail-to-on is included standard ('SP1'). 12. For single or double fusing, 'XXX' must specify required voltage. 13. 'BLS-VTM', 'FSS-VTM' and 'CSS-VTM' shields are not available for use with the 'T5' Type-5 optical distribution.
- Denotes 'NB01P' Smart Controllers will ship bulk or master pack and ships separately from the luminaire.



Luminaire Specifications

Housing & Construction

Rugged grade A360 die-cast aluminum housing, and door frame (<0.6% copper). Housing includes integral heatsink fins and (3) pass-thru convective cooling slots between the LED array heatsink and driver compartment for enhanced cooling and maximum thermal management to maximize LED platform and electrical component lifetime. Electrical access door provides access to electrical components via two corrosion resistant stainless-steel tool-free latches (tamper free latch option 'TFL' is available). Door can be removed without the use of tools. Electrical door comes standard with an integral VersaKICK 'kickstand' to quickly and easily prop open the the door to allow for frustration free installation or maintenance. Optional 'PWRD' Power Door mounts all serviceable electrical components on the door with tool-free removal for easy field maintenance or replacement. Internal bubble level standard for leveling during install. All exposed hardware and fasteners are corrosion resistant stainless-steel. Entire luminaire is IP66 rated.

Light Emitting Diodes

Hi-flux/Hi-power white LEDs produce a minimum of 90% of initial lumen output at 95,000 hours of life based on IES TM-21 (at 25°C). LEDs are tested in accordance with IES LM-80 testing procedures. IES TM-21 lumen maintenance life projection is based on 6X the duration of the LED's IES LM-80 performance data (estimates beyond 6X are extrapolated per TM-21). LED correlated color temperature options of 2700K, 3000K, 4000K, or 5000K @ 70CRI or 80CRI (2700K is 70CRI only). LEDs are 100% mercury and lead free.

Site & Area and Wall Mounting Options

All site & area and wall mounting options are constructed of rugged A360 die-cast aluminum. Universal/retrofit square pole 'SPM', round pole 'RPM' and adjustable square 'ASPM', adjustable round 'ARPM' arm mount options can accept bolt spacings from 2.29" to 5.25" and are designed for quick and easy single person installation. Horizontal mast arm fitter 'MAF' is designed to install to horizontal 1-5/8", 2-3/8" and 3" O.D. tenons. Fixed 'WM' and adjustable 'AWM' wall mount options mount to recessed 3" or 4" square or octagonal recessed J-boxes (by others). Surface conduit wall mount options 'WMSC' and 'AWMSC' includes (4) 3/4" NPT thru-wire taps with plugs. All wall mount options include an integral bubble level for ease of installation. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass.

Color Specifications

Order Code	Color	RAL #	Pantone Equivalent
GY	Gray	7040	429C
BK	Black	9004	BLACK 6C
DB1	Dark Bronze	8019	412
WH	White	9003	11-0601

Optical Systems

All Micro-lens optical systems are fully sealed to maintain an IP66 rating. All Site & Area and Roadway optical distributions produce 0% total lumens above 90° when installed horizontally (BUG Rating, U=0). Auto Front Row (AFR) optics are designed to enhance light levels at dealership's site perimeter while minimizing wattage and backlight. Multiple glare and light trespass shielding options and accessories are available (see 'Ordering Information' for details).

Photometry

Luminaire's photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

Electrical

Rated life of electrical components is 100,000 hours. Standard 0-10V dimmable drivers use an isolated power supply with 6kV integral surge standard. Power supply features a minimum power factor of 0.90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Optional DALI D4i certified LED drivers also available, which complies with IEC 62386 and ANSI C137.4 and DiiA. Optional 3-position terminal block accommodates 6 to 16AWG wire. Standard surge protection (10kV/5kA Surge, Fail-to-On) complies with IEEE/ANSI C62.41 and ANSI C136.2-2015. Optional 'SP2' and 'LSSP2' provides (20kV/10kA) extreme level surge protection.

General Control Options

ANSI C136.41 7-wire controls ready photocontrol receptacle 'PCR7CR' option available for use with LEOLink nodes or by others. Receptacle has a tool-less rotatable base with a positive lock to not allow over-rotation and possible damage to the receptacle. Optional DALI D4i and Part Night Dimming driver configurations are also available for added controllability and design flexibility. DALI compatible 'TLR4U' and 'TLR4L' 4-PIN twist lock receptacle options available (wireless DALI nodes or DALI sensors are by others).

LEOLink Intelligent Lighting System

ANSI C136.41 7-wire smart wireless controllers allow real-time monitoring and asset management of luminaires with 'NB01P' wireless control nodes installed. RenAI cloud-based application receives system data while applying specific AI models for fault isolation and the resolution of voltage health, outages, knockdowns, energy usage, LED faults and more. Allows for full remote management of the luminaire, including the ability to store and execute customer specific schedules and performance parameters. System communicates via standard 4G/5G IoT networks with a cellular data plan and RenAI subscription.

Field Adjustability

Optional Performance Selector 'PS' is an integral 8-step fixed position dial allowing field adjustable lumen and wattage dimming control for added project and design versatility to meet installation specific requirements. The specified Performance Code provides the maximum lumen output. Only compatible with VersaTEK's standard 0-10V drivers. Not compatible with DALI driver option.

Finish

Housing receives a fade and abrasion resistant textured polyester powder coat finish with 3.0 mil nominal thickness. Finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

Luminaires are UL listed for use in wet locations in the United States and Canada and are rated IP66. Luminaires are qualified to operate at ambient temperatures of -40°C to 50°C. (-40°F to 122°F)

Government Procurement Compliance

BAA - Buy America(n) Act: All LEOTEK luminaires qualify as a "Domestic End Product" per the Buy American Act as governed by FAR.

BABA - Build America Buy America: All LEOTEK luminaires are compliant with the requirements for BABA as outlined per the Federal Highway Administration (FHWA).

Quality Control

Every luminaire is assembled in the USA and is performance tested before and after a 2-hour burn-in period.

Warranty

10-year limited warranty is standard on luminaire and components. 5-year limited warranty on luminaires and components with a motion sensor. See LEOTEK.com for warranty details, terms and conditions.

Standards

Luminaire complies with:
ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77
Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598

Performance Data* (70CRI*, 25°C ambient...*for 80CRI option use a 0.91 multiplier)

Normal tolerance +/- 10% due to factors that include distribution type, LED bin variance and ambient temperatures.

Perf. Code	System Wattage (W)	Optic	27K7 (2700K CCT, 70CRI)					30K7 (3000K CCT, 70CRI)					40K7 (4000K CCT, 70CRI)					50K7 (5000K CCT, 70CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50K Hours	75K Hours	100K Hours
P1	180	NR	29,974	167.0	4	0	3	32,331	180.0	4	0	3	34,222	190.0	4	0	3	34,222	190.0	4	0	3	0.979	0.972	0.965
		MR	33,447	186.0	4	0	4	31,599	176.0	4	0	4	33,447	186.0	4	0	4	33,447	186.0	4	0	4			
		WR	30,132	167.0	4	0	4	32,501	181.0	4	0	4	34,402	191.0	4	0	4	34,402	191.0	4	0	4			
		T2R	30,132	167.0	4	0	4	32,501	181.0	4	0	4	34,402	191.0	4	0	4	34,402	191.0	4	0	4			
		T2F	27,606	153.0	4	0	4	29,777	165.0	4	0	4	31,519	175.0	4	0	4	31,519	175.0	4	0	4			
		T3R	29,296	163.0	3	0	4	31,600	176.0	3	0	4	33,448	186.0	3	0	4	33,448	186.0	3	0	4			
		T3F	28,448	158.0	3	0	3	30,685	170.0	3	0	3	32,480	180.0	4	0	4	32,480	180.0	4	0	4			
		T4R	28,392	158.0	3	0	4	30,625	170.0	3	0	4	32,416	180.0	3	0	5	32,416	180.0	3	0	5			
		T4F	27,975	155.0	3	0	5	30,175	168.0	3	0	5	31,940	177.0	3	0	5	31,940	177.0	3	0	5			
		T5	29,461	164.0	5	0	4	31,778	177.0	5	0	4	33,636	187.0	5	0	4	33,636	187.0	5	0	4			
P2	211	AFR	29,556	164.0	3	0	3	31,881	177.0	3	0	3	33,745	187.0	3	0	3	33,745	187.0	3	0	3	0.979	0.972	0.965
		NR	34,045	161.0	4	0	3	36,712	174.0	4	0	4	39,142	186.0	4	0	4	39,142	186.0	4	0	4			
		MR	38,255	181.0	4	0	4	35,881	170.0	4	0	4	38,255	181.0	4	0	4	38,255	181.0	4	0	4			
		WR	34,224	162.0	4	0	4	36,905	175.0	4	0	4	39,347	186.0	4	0	4	39,347	186.0	4	0	4			
		T2R	34,224	162.0	4	0	4	36,905	175.0	4	0	4	39,347	186.0	4	0	4	39,347	186.0	4	0	4			
		T2F	31,356	149.0	4	0	4	33,812	160.0	4	0	4	36,050	171.0	4	0	5	36,050	171.0	4	0	5			
		T3R	33,275	158.0	3	0	4	35,881	170.0	3	0	4	38,256	181.0	4	0	4	38,256	181.0	4	0	4			
		T3F	32,312	153.0	4	0	4	34,843	165.0	4	0	4	37,149	176.0	4	0	4	37,149	176.0	4	0	4			
		T4R	32,248	153.0	3	0	5	34,775	165.0	3	0	5	37,076	176.0	3	0	5	37,076	176.0	3	0	5			
		T4F	31,775	151.0	3	0	5	34,264	162.0	3	0	5	36,532	173.0	4	0	5	36,532	173.0	4	0	5			
P3	263	T5	33,462	159.0	5	0	4	38,010	180.0	5	0	5	38,471	182.0	5	0	5	38,471	182.0	5	0	5	0.979	0.972	0.965
		AFR	33,571	159.0	3	0	3	36,200	172.0	4	0	4	38,596	183.0	4	0	4	38,596	183.0	4	0	4			
		NR	41,854	159.0	4	0	4	45,131	172.0	4	0	4	48,210	183.0	4	0	4	48,210	183.0	4	0	4			
		MR	47,118	179.0	4	0	4	44,108	168.0	4	0	4	47,118	179.0	4	0	4	47,118	179.0	4	0	4			
		WR	42,074	160.0	4	0	4	45,368	173.0	4	0	4	48,463	184.0	4	0	4	48,463	184.0	4	0	4			
		T2R	42,074	160.0	4	0	4	45,368	173.0	4	0	4	48,463	184.0	4	0	4	48,463	184.0	4	0	4			
		T2F	38,548	147.0	4	0	5	41,565	158.0	4	0	5	44,402	169.0	4	0	5	44,402	169.0	4	0	5			
		T3R	40,907	156.0	4	0	5	44,110	168.0	4	0	5	47,119	179.0	4	0	5	47,119	179.0	4	0	5			
		T3F	39,723	151.0	4	0	4	42,833	163.0	4	0	4	45,755	174.0	4	0	4	45,755	174.0	4	0	4			
		T4R	39,645	151.0	3	0	5	42,749	163.0	4	0	5	45,666	174.0	4	0	5	45,666	174.0	4	0	5			
P4	290	T4F	39,063	149.0	4	0	5	42,121	160.0	4	0	5	44,995	171.0	4	0	5	44,995	171.0	4	0	5	0.942	0.919	0.896
		T5	41,137	156.0	5	0	5	44,358	169.0	5	0	5	47,384	180.0	5	0	5	47,384	180.0	5	0	5			
		AFR	41,271	157.0	4	0	4	44,502	169.0	4	0	4	47,538	181.0	4	0	4	47,538	181.0	4	0	4			
		NR	45,680	158.0	4	0	4	49,291	170.0	4	0	4	52,646	182.0	4	0	4	52,646	182.0	4	0	4			
		MR	51,453	177.0	4	0	4	48,175	166.0	4	0	4	51,453	177.0	4	0	4	51,453	177.0	4	0	4			
		WR	45,920	158.0	4	0	4	49,550	171.0	4	0	4	52,922	182.0	4	0	4	52,922	182.0	4	0	4			
		T2R	45,920	158.0	4	0	4	49,550	171.0	4	0	4	52,922	182.0	4	0	4	52,922	182.0	4	0	4			
		T2F	42,072	145.0	4	0	5	45,398	157.0	4	0	5	48,487	167.0	4	0	5	48,487	167.0	4	0	5			
		T3R	44,647	154.0	4	0	5	48,176	166.0	4	0	5	51,454	177.0	4	0	5	51,454	177.0	4	0	5			
		T3F	43,355	149.0	4	0	4	46,782	161.0	4	0	4	49,965	172.0	4	0	4	49,965	172.0	4	0	4			
P5	317	T4R	43,270	149.0	4	0	5	46,690	161.0	4	0	5	49,867	172.0	4	0	5	49,867	172.0	4	0	5	0.942	0.919	0.896
		T4F	42,634	147.0	4	0	5	46,004	159.0	4	0	5	49,135	169.0	4	0	5	49,135	169.0	4	0	5			
		T5	44,898	155.0	5	0	5	48,447	167.0	5	0	5	51,744	178.0	5	0	5	51,744	178.0	5	0	5			
		AFR	45,044	155.0	4	0	4	48,604	168.0	4	0	4	51,912	179.0	4	0	4	51,912	179.0	4	0	4			
		NR	49,345	156.0	4	0	4	53,387	168.0	4	0	4	56,995	180.0	5	0	4	56,995	180.0	5	0	4			
		MR	55,704	176.0	5	0	5	52,178	165.0	4	0	4	55,704	176.0	5	0	5	55,704	176.0	5	0	5			
		WR	49,604	156.0	4	0	4	53,667	169.0	4	0	4	57,295	181.0	5	0	5	57,295	181.0	5	0	5			
		T2R	49,604	156.0	4	0	4	53,667	169.0	4	0	4	57,295	181.0	5	0	5	57,295	181.0	5	0	5			
		T2F	45,447	143.0	4	0	5	49,170	155.0	4	0	5	52,493	166.0	4	0	5	52,493	166.0	4	0	5			
		T3R	48,228	152.0	4	0	5	52,179	165.0	4	0	5	55,706	176.0	4	0	5	55,706	176.0	4	0	5			
P6	345	T3F	46,832	148.0	4	0	4	50,669	160.0	4	0	4	54,093	171.0	4	0	4	54,093	171.0	4	0	4	0.942	0.919	0.896
		T4R	46,740	147.0	4	0	5	50,570	160.0	4	0	5	53,987	170.0	4	0	5	53,987	170.0	4	0	5			
		T4F	46,054	145.0	4	0	5	49,827	157.0	4	0	5	53,195	168.0	4	0	5	53,195	168.0	4	0	5			
		T5	48,499	153.0	5	0	5	52,473	166.0	5	0	5	56,019	177.0	5	0	5	56,019	177.0	5	0	5			
		AFR	48,657	153.0	4	0	4	52,643	166.0	4	0	4	56,201	177.0	4	0	4	56,201	177.0	4	0	4			
		NR	52,929	153.0	4	0	4	57,353	166.0	5	0	4	61,258	178.0	5	0	5	61,258	178.0	5	0	5			
		MR	59,871	174.0	5	0	5	56,053	162.0	5	0	5	59,871	174.0	5	0	5	59,871	174.0	5	0	5			
		WR	53,207	154.0	4	0	4	57,654	167.0	5	0	5	61,580	178.0	5	0	5	61,580	178.0	5	0	5			
		T2R	53,207	154.0	4	0	4	57,654	167.0	5	0	5	61,580	178.0	5	0	5	61,580	178.0	5	0	5			
		T2F	48,748	141.0	4	0	5	52,822	153.0	5	0	5	56,419	164.0	5	0	5	56,419	164.0	5	0	5			
P7	373	T3R	51,731	150.0	4	0	5	56,055	162.0	4	0	5	59,872	174.0	4	0	5	59,872	174.0	4	0	5	0.942	0.919	0.896
		T3F	50,234	146.0	4	0	4	54,432	158.0	4	0	4	58,139	169.0	4	0	5	58,139	169.0	4	0	5			
		T4R	50,135	145.0	4	0	5	54,326	157.0	4	0	5	58,026	168.0	4	0	5	58,026	168.0	4	0	5			
		T4F	49,399	143.0	4	0	5	53,528	155.0	4	0	5	57,173	166.0	4	0	5	57,173	166.0	4	0	5			
		T5	52,022	151.0	5	0	5	56,370	163.0	5	0	5	60,209	175.0	5	0	5	60,209	175.0	5	0	5			
		AFR	52,191	151.0	4	0	4	56,553	164.0	4	0	5	60,404	175.0	4	0	5	60,404	175.0	4	0	5			
		NR	56,486	151.0	5	0	4	61,254	164.0	5	0	5	65,331	175.0	5	0	5	65,331	175.0	5	0	5			
		MR	63,851	171.0	5	0	5	59,867	161.0	5	0	5	63,851	171.0	5	0	5	63,851	171.0	5	0	5			
		WR	56,783	152.0	5	0	5	61,576	165.0																

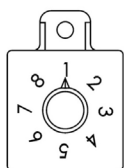
Optional Field Adjustable Performance Selector 'PS' ('PS' is only compatible with standard 0-10V drivers, not compatible w/ optional DALI drivers)

The optional Performance Selector is an integral dial that allows for field adjustable lumen/wattage dimming control for added design versatility. Normal tolerance +/- 8%.

2700K, 3000K, 4000K, 5000K *

PS Position	Lumen Output %	P1	P2	P3	P4	P5	P6	P7
Wattage (W)								
8	100%	180	211	263	290	317	345	373
7	90%	159	187	233	257	281	305	330
6	80%	143	168	209	231	252	274	297
5	70%	124	145	181	200	218	237	257
4	60%	108	127	158	174	191	207	224
3	50%	89	104	130	144	157	171	185
2	40%	71	83	104	114	125	136	147
1	30%	53	62	78	86	94	102	110

*For 80CRI option use an additional 0.91 lumen multiplier.



Optional Field Adjustable
Performance Selector 'PS' Dial

IES TM-21 LED Lumen Maintenance (*values *italicized* are per LM-80 data that is extrapolated beyond the TM-21 6X standard)

Reported lumen maintenance life projections are based on 6X the duration of the LED's IES LM-80 tested performance data in accordance per IES TM-21 guidelines.

IES TM-21 LED Lumen Maintenance						
Performance Code P1 to P3	0 Hrs	25,000 Hrs	50,000 Hrs	60,000 Hrs	*75,000 Hrs	*100,000 Hrs
VTL @ 25°C Ambient	100.00%	98.60%	97.89%	97.61%	<i>97.19%</i>	<i>96.49%</i>
VTL @ 50°C Ambient	100.00%	95.85%	92.75%	91.55%	<i>89.76%</i>	<i>86.87%</i>

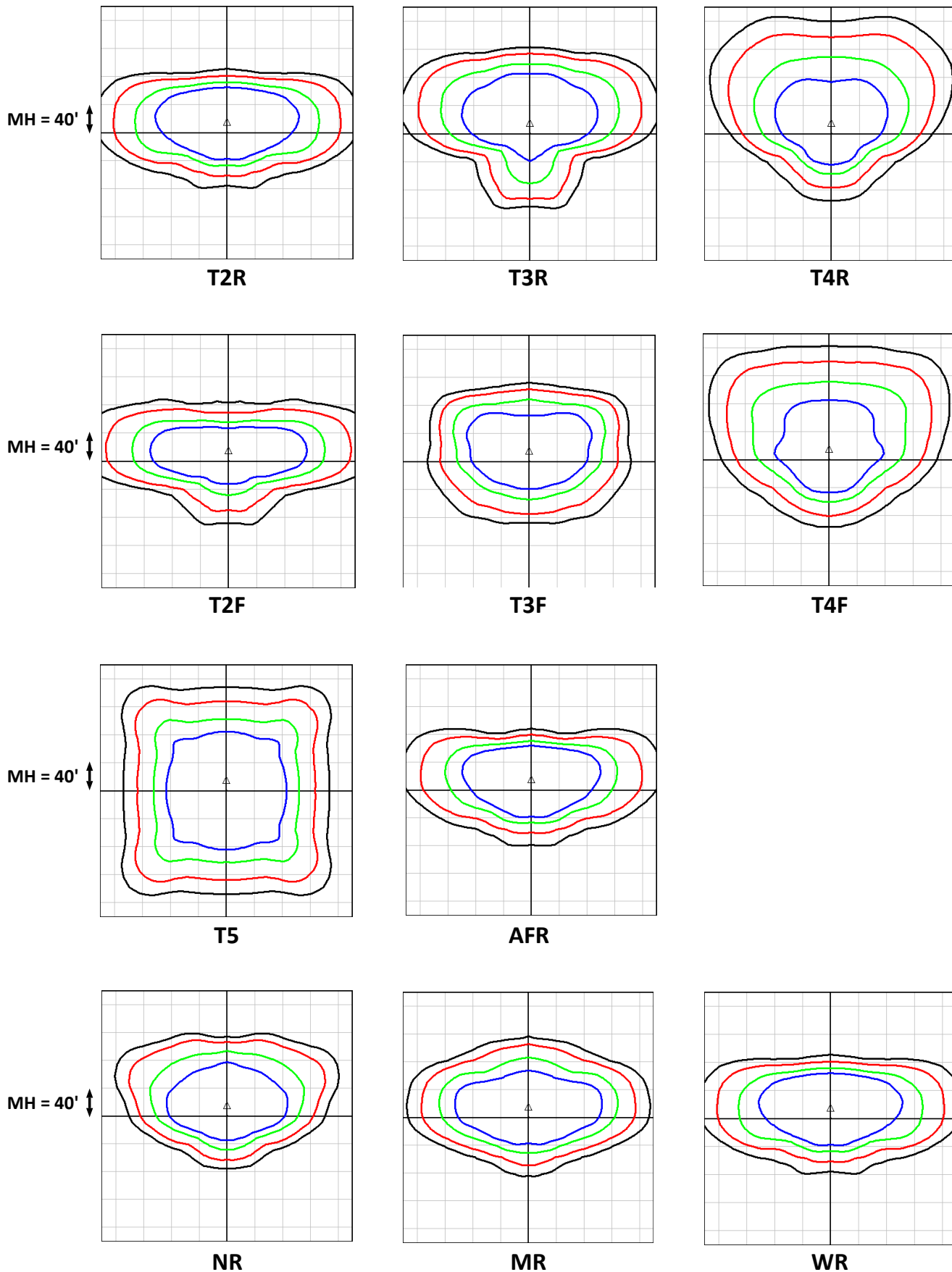
IES TM-21 LED Lumen Maintenance						
Performance Code P4 to P7	0 Hrs	25,000 Hrs	50,000 Hrs	60,000 Hrs	*75,000 Hrs	*100,000 Hrs
VTL @ 25°C Ambient	100.00%	96.65%	94.23%	93.27%	<i>91.86%</i>	<i>89.56%</i>
VTL @ 50°C Ambient	100.00%	94.79%	91.34%	90.00%	<i>88.01%</i>	<i>84.81%</i>

Optical Isofootcandle Plots ('P12' Performance Code, 4000K/5000K, 70CRI, 20' Mounting Height MH, Grid Scale = MH or 40' as shown)

Complete non-shielded & shielded photometric IES files are available for download at www.LEOTEK.com or can be found in AGI32's Photometric Instabase.

LEGEND

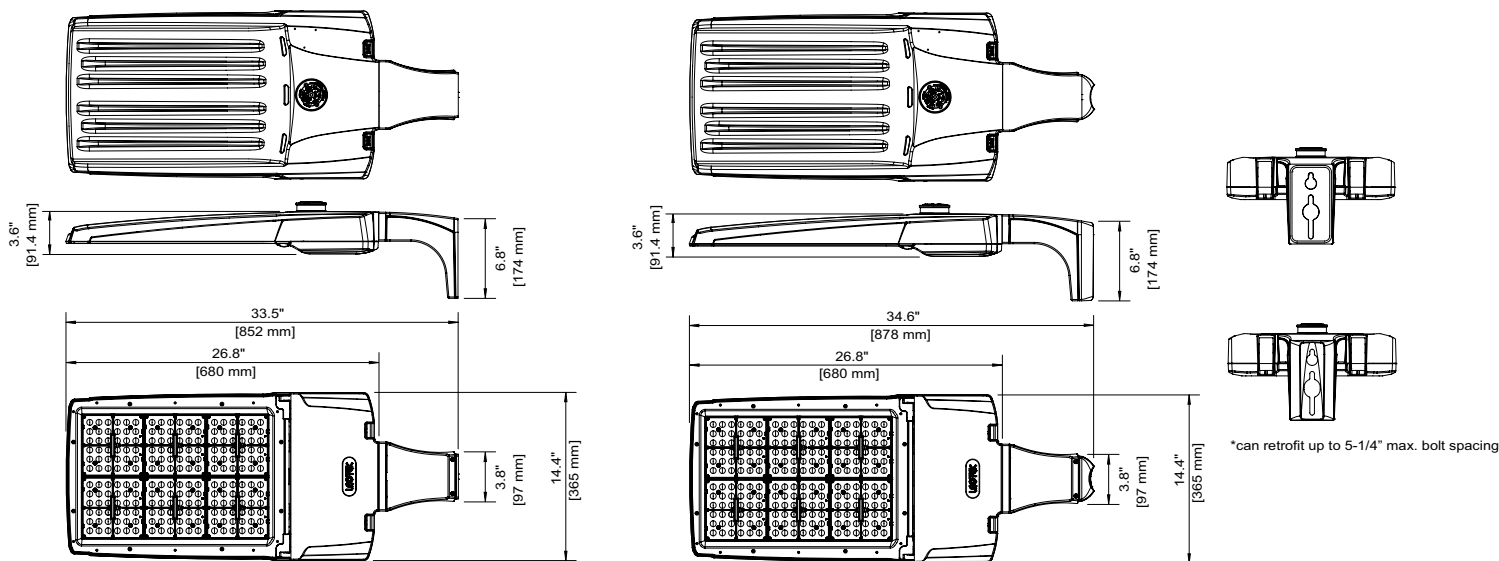
- 0.1 Fc
- 0.2 Fc
- 0.5 Fc
- 1.0 Fc



Mounting Option Details & Dimensional Information

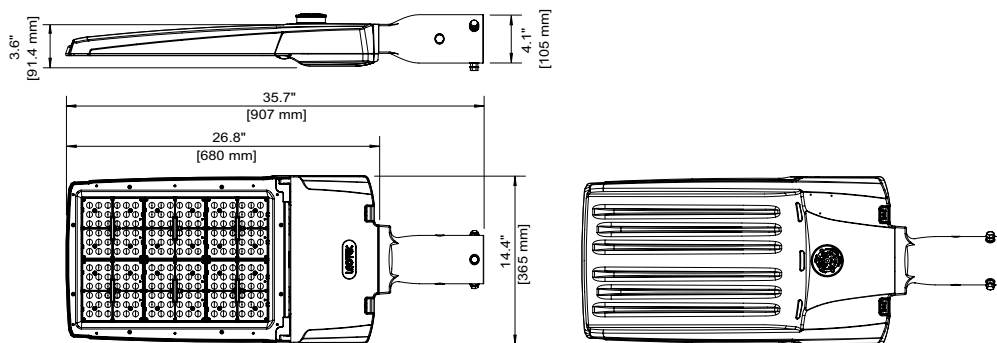
'SPM' Square & 'RPM' Round Pole Arm Mount*

(quick mount arm can retrofit up to 5.25" max. bolt spacing w/ no drilling required)



'MAF' Horizontal Mast Arm Fitter Mount*

(3/8" stainless steel thru-bolt & nut is included)

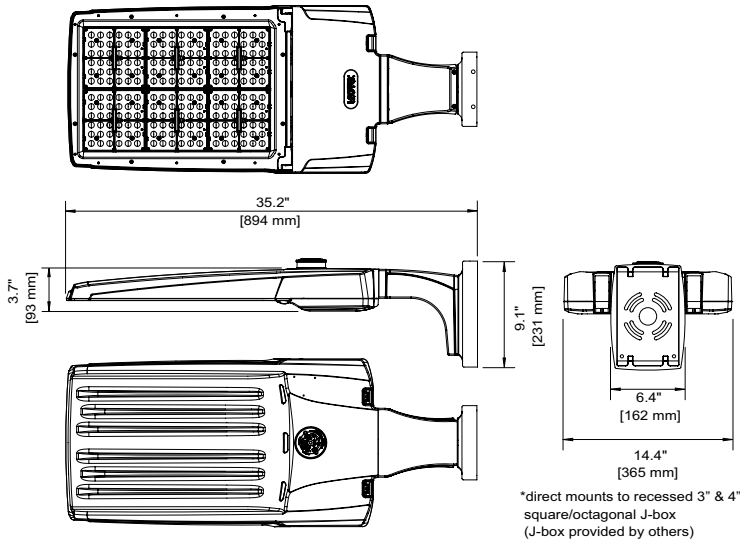


*compatible w/ 1-5/8" , 2-3/8" & 3" O.D. tenons

Mounting Option Details & Dimensional Information *(continued)*

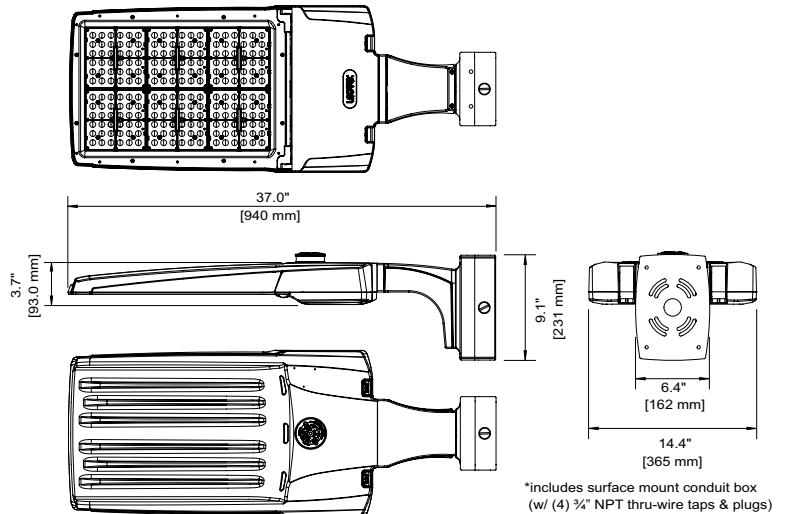
'WM' Wall Mount Fixed*

(mounts to recessed J-box, shown w/ optional 'PCR7CR')



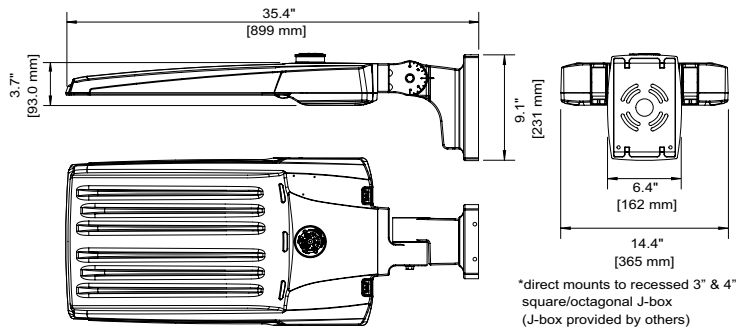
'WMSC' Wall Mount Fixed w/ Surface Conduit*

(includes surface mount 3/4" conduit J-box, shown w/ optional 'PCR7CR')



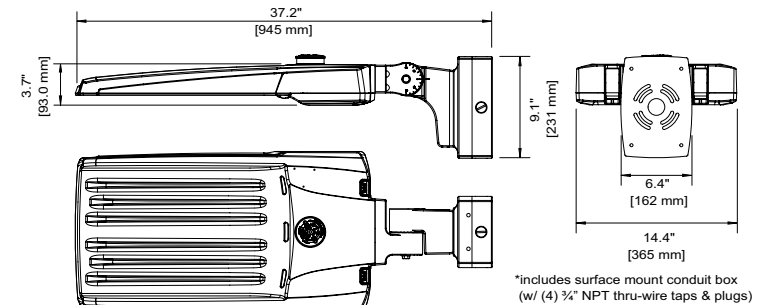
'AWM' Adjustable Wall Mount*

(mounts to recessed J-box, shown w/ optional 'PCR7CR')



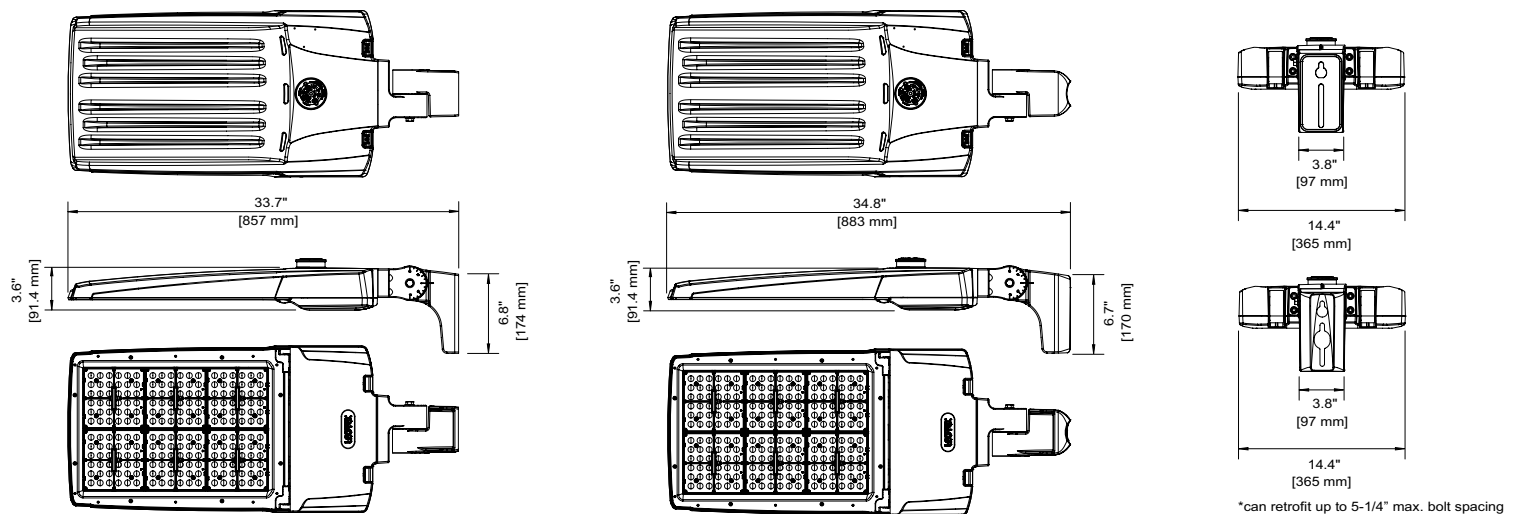
'AWMSC' Adjustable Wall Mount Surface Conduit*

(includes surface mount 3/4" conduit J-box, shown w/ optional 'PCR7CR')



'ASPM' Square & 'ARPM' Adjustable Round Pole Arm Mount*

(quick mount arm can retrofit up to 5.25" max. bolt spacing w/ no drilling required)



Key Additional Miscellaneous Product Features & Design Details

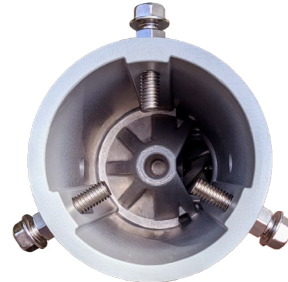
Integral Tool-Free Access Design

Tool-free electrical access & removable hinged door w/ fixed open door prop design for ease of installation or maintenance
(compatible w/ most lineman safety gloves)



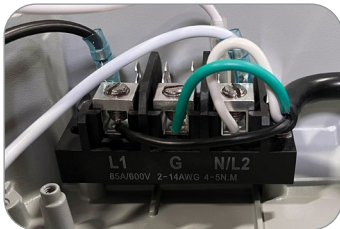
Self-Centering Design

Mast arm fitter options are designed with a self-centering & leveling design feature
(compatible w/ 1-5/8", 2-3/8" & 3" O.D. tenons)



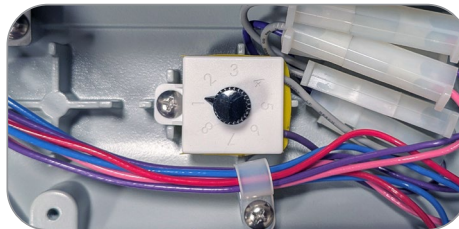
3-Position Terminal Block 'TB' Option

For ease of maintenance & increased safety, improved wire management & robust product life cycle operation
(includes line, neutral & ground, accommodates 6 to 16AWG wire)



Performance Selector 'PS' Option

Allows for quick & easy field adjustment of wattage, lumen output and reduced SKU complexity
(fixed position dial ensures correct output setting)



Integral VersaKick

VersaKick 'kickstand' props open the door during installation or maintenance
(allows for 'frustration free' ease of access)



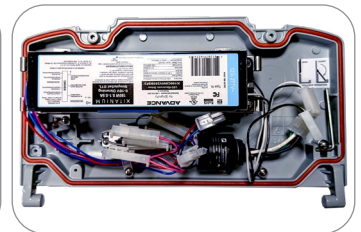
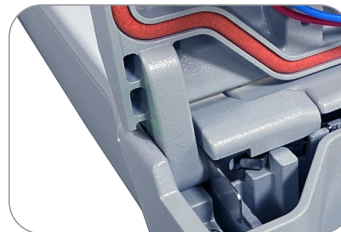
Pass-Thru Convective Cooling

(3) integral cooling slots allows ambient air to flow freely thru the luminaire for enhanced thermal management
(maximizes lifetime of electrical components & lumen maintenance)



Tool-Free Removable Power Door Option 'PWRD'

All serviceable electrical components are mounted to a tool-free removable Power Door that can be removed in less than 15 seconds to safely service on the ground or replace in seconds
(undo MOLEX connectors, push two spring clips inward to unlock door, slide the door forward & lift to remove)



'4SS-VTL'

4-Sided Shield



'TBS-VTL'

Top or Bottom Shield



'LRS-VTL'

Left or Right Side Shield



'BDS-VTL'

Barn Door Shield



'WG-VTL'

Wire Guard



'VS-VTL'

Poly Vandal Shield



LEOLink ILS™ Intelligent Lighting System for Tomorrow's Smart & Sustainable Cities

Smart...Scalable...Effortless

LEOLink ILS is the next evolution in street lighting, integrating AI and IoT to transform a city's traditional outdoor lighting infrastructure into a smart, adaptive network. It empowers municipalities and utilities with real-time control, predictive maintenance, and rapid scalability, all with unmatched simplicity.

Integrating LEOTEK's AI-driven centralized management platform (LEOLink RenAI) with intelligent streetlight controllers, LEOLink ILS provides 24x7 visibility into the status and performance of streetlights enabling efficient energy use, real-time fault detection, and predictive maintenance across city-wide lighting networks. Easy "plug-and-play" deployment and scalability support users in achieving operational excellence, public safety, and long-term sustainability. With LEOLink ILS, cities are creating the backbone of a future-ready smart city.

Key Functions

Centralized, Remote Management

Gain complete control of your city's smart lighting infrastructure from a single, intuitive platform.

Instant Response to Anomalies

Automatically identify and respond to abnormal lighting behavior in real-time.

AI-Powered Predictive Maintenance

Detect and address faults before they occur, minimizing downtime and maintenance costs.

Actionable Insights Through Data Visualization

Monitor asset performance and energy trends with clear, interactive dashboards and reports.

Energy Efficiency & Cost Savings

Optimize energy usage with intelligent scheduling and dimming, reducing operational expenses.

LEOLink NB01 Plus Smart Controller Key Features & Benefits

The smartest fit for 7-PIN NEMA fixtures. Engineered to deliver seamless performance, trusted security, and plug-and-play simplicity, all in one powerful, next-generation controller.

Model	Form Factor	Fixture Compatibility	Connectivity	Power Source	Typical Use Case
NB01 Plus	NEMA 7-pin	Most ANSI C136.41-compliant fixtures	NB-IoT / LTE CAT-M	Powered via NEMA socket	Retrofit or upgrade existing fixtures



*LEOLink 'NB01P' Smart Controller



Self-Monitoring & Fault Detection

NB01P continuously monitors the luminaire's operational status, identifying power outages, failures, and abnormal energy patterns for fast diagnostics and improved maintenance efficiency.



AI-Driven Adaptive Dimming

Participates with LEOLink RenAI to enable intelligent dimming strategies, including human-centric lighting adjustments based on real-time traffic, weather, and pedestrian activity.



Ultra-High Connectivity

Dual-mode cellular communication using the world's most reliable and secure carriers ensures a 99.5% connection success rate, delivering reliable continuous data transmission even in challenging environments.



Predictive Maintenance & Analytics

Advanced failure analysis and predictive diagnostics move cities from reactive to preventative maintenance strategies that reduce downtime and operational costs.



Built-In Surge Protection

Advanced surge protection against lightning and voltage spikes safeguards critical streetlight infrastructure.

LEOLink RenAI Central Management System Key Features & Benefits

An AI-powered cloud-based streetlight Central Management System (CMS), LEOLink RenAI is at the core of the LEOLink Intelligent Lighting System (ILS). Unlike traditional CMS platforms, LEOLink RenAI, leverages a native AI foundation to transform streetlighting into a dynamic, adaptive, and self-optimizing system by analyzing real-time and historical data. Designed to meet the complex demands of modern roadway infrastructure, LEOLink RenAI helps municipalities improve energy efficiency, reduce operational costs, and improve public safety across city-wide lighting networks.



LiSA (LEOTEK intelligent Service Advisor)

LiSA, our AI-powered assistant, is available 24/7 to streamline operations, quickly answering questions, generating charts and tables, and assisting with troubleshooting to lighten your team's workload.



Fault Detection & Notification

Monitor streetlight health and status in real time to detect and receive instant fault alerts.



Asset Management

Collect and track roadway infrastructure asset information such as streetlight fixtures, poles and controllers. to drive operational efficiencies across from field maintenance to life cycle management.



Energy Consumption Management

Track usage, identify trends, and forecast energy needs for optimal efficiency.



Remote Control

Remotely switch lights ON/OFF and adjust brightness via an intuitive user interface.



Scheduled Dimming

Automatically adjusts brightness levels based on ambient light and pre-set schedules.

Motion Sensor (Optional) Specifications*

Integral motion sensor options are available for horizontal site & area and fixed wall mounting options only.

'MSL3', 'MSL7' motion sensors require secondary controls for ON/OFF capability (*ex. time clock or 0-10V by others*). Contact factory for Motion Sensor availability w/ 'PCR7CR' control ready receptacle for use with wireless 7-PIN control node (*by others*).

'MSL3P', 'MSL7P' motion sensors, luminaire includes a PCR7 photocontrol receptacle for use with a twist lock photocontrol for ON/OFF capability.
(*for use with our 'LLPC' or photocontrol by others, PINs 6 & 7 are not wired for controls, not compatible w/ wireless nodes*).

Description

Digital passive infrared luminaire integrated outdoor occupancy sensor provides high/low/off control based on motion detection. Initial setup and subsequent sensor adjustments are made using a handheld configuration tool. PCR option is required for On/Off control using light detection. Available with both MV or HV input voltage options.

Operation

Standard factory setting will dim the luminaire to 50% until motion is sensed and then it will power to 100%. When motion is not detected for five minutes, the luminaire will dim back to 50%. Ramp up and fade down times are adjustable, but initially set to NONE. The percent dimming and time durations may be field adjusted as required using FSIR-100 configuration tool. FSIR-100 user guide available at: www.wattstopper.com.

Optical System

Multi-cell, multi-tier Fresnel lens with a 360 degree view detects unobstructed motion within one mounting height, up to 20 ft. maximum (MSL3) or 40 ft. maximum (MSL7). Consult factory for higher mounting height requirements.

Finish

Sensor exterior ring and lens are white polycarbonate, UV and impact resistant.

Listings/Ratings

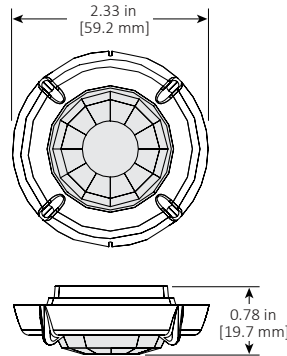
Sensor is TUV, UL and cUL listed, IP66 rated and CE compliant.

Warranty

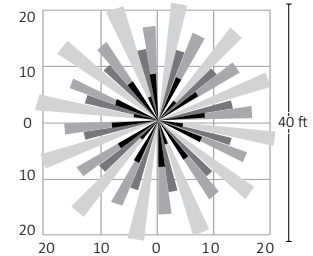
5-year limited warranty on luminaires and components with a motion sensor.

Motion Sensor (Optional) Data

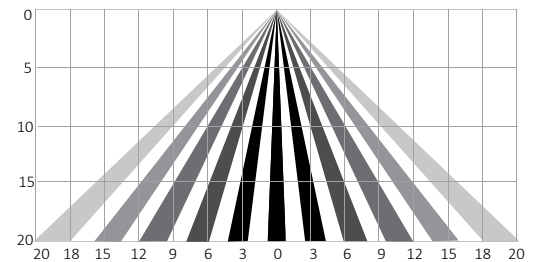
MSL3 Lens Dimensions



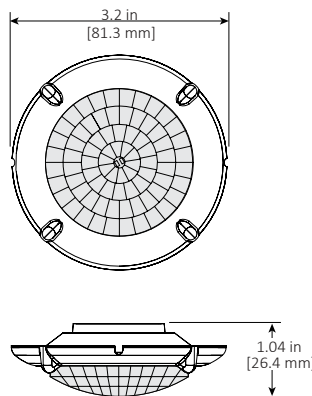
MSL3 Lens Coverage Top View



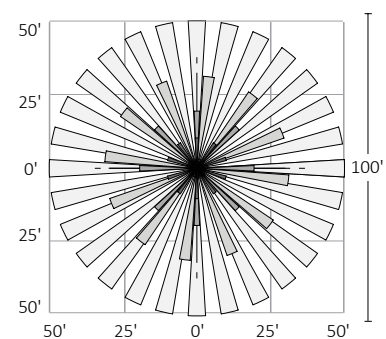
MSL3 Lens Coverage Side View



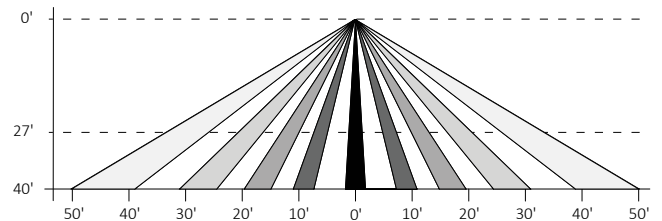
MSL7 Lens Dimensions



L7 Lens Coverage Top View



L7 Lens Coverage Side View



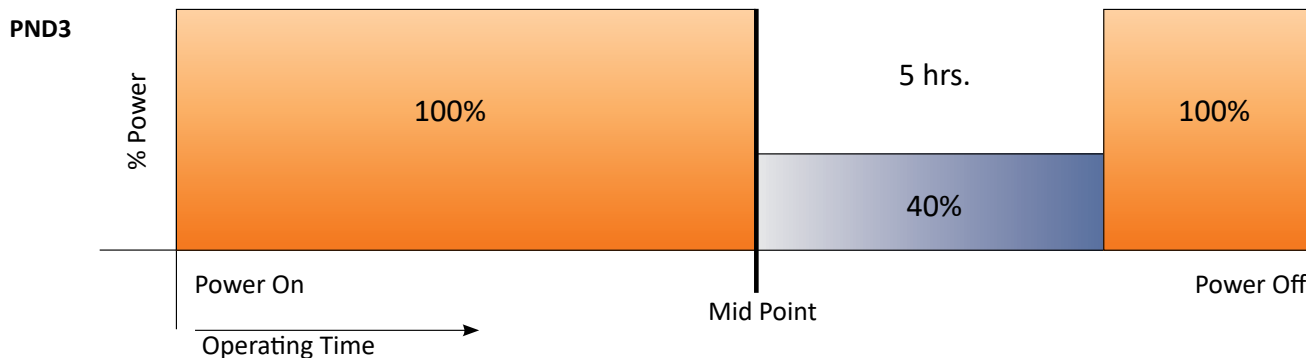
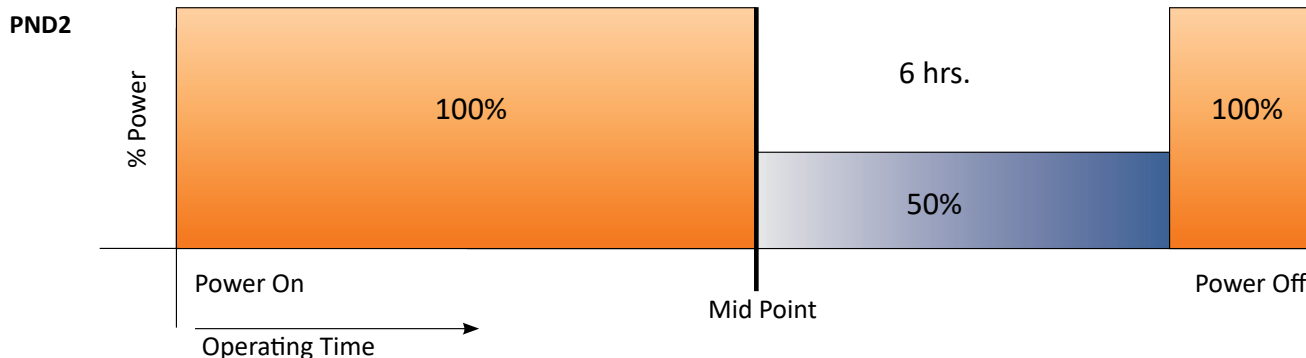
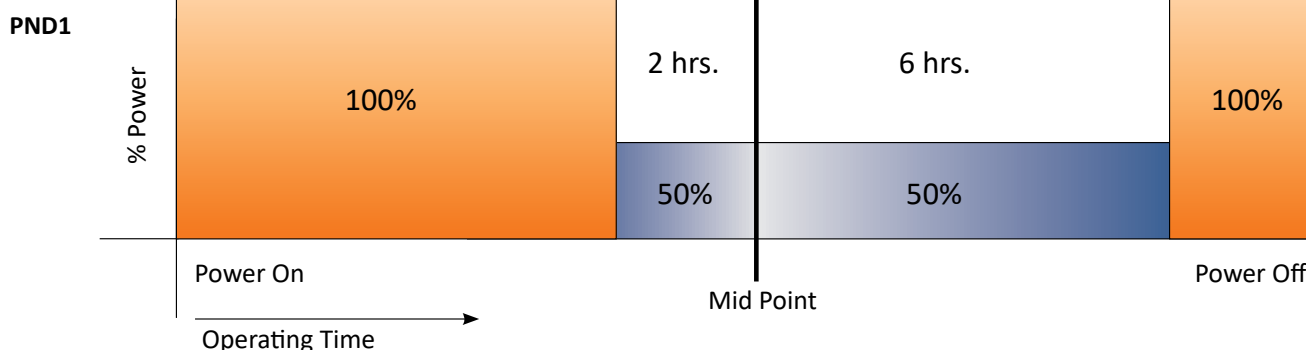
Part-Night Dimming Specifications

Description

Part-Night Dimming (PND) option enables significant energy savings by automatically dimming the luminaire during early morning hours when infrequent use is expected. Factory programmed dimming profiles automatically take into account seasonal changes based on geographical location by continuously monitoring the nighttime midpoint. PND does not provide power on/off control which is provided by external controls (example: time clock or a photocontrol using 'PCR7CR' option). Dimming profile of PND option is not field adjustable.

Operation

Based on the PND profile that is selected, the luminaire dims to the corresponding % power for the corresponding length of time (based on the nighttime mid-point) as shown below. Mid-point is continuously recalculated in the luminaire by monitoring the average length of time between when the light turns on (power on) and turns off (power off) over the previous two days. In effect, this functionality will take two days to initialize after installation before any dimming will occur. Power interruptions are ignored and do not affect the determination of mid-point. A motion sensor ('MSL3', 'MSL7' or 'MSL3P', 'MSL7P') can be used with PND to temporarily override the dimming profile when motion is detected. Three factory programmed PND profiles are available for selection:



VersaTEK Large LED Site & Area - Luminaire EPA Values

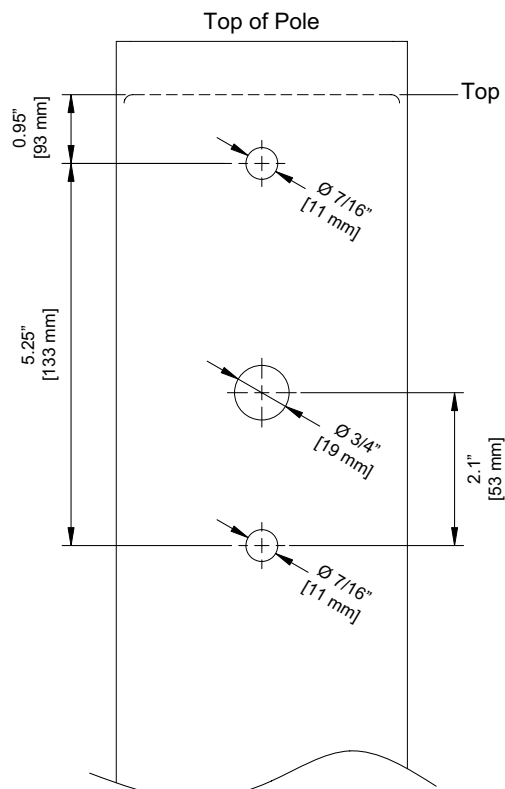
(*Includes luminaire and mounting options shown. Secondary tenons, brackets or other accessories are not included in the EPA data.)

		Effective Projected Area (EPA ft²)								
Luminaire Quantity & Orientation		Single	2 @ 90	2 @ 180	3 @ 90	3 @ 120	4 @ 90	2 Side by Side	3 Side by Side	4 Side by Side
Mounting Option	Tilt									
ASPM & ARPM Adjustable Square & Round Pole Arm Mount	0°	1.03	1.60	2.07	2.63	2.44	2.63	1.13	1.69	2.25
	10°	1.03	1.89	2.07	2.93	2.97	2.93	1.72	2.58	3.44
	20°	1.37	2.40	2.07	3.44	3.91	3.44	2.74	4.10	5.47
	30°	1.85	2.89	2.07	3.92	4.85	3.92	3.70	5.55	7.40
	40°	2.29	3.32	2.29	4.36	5.71	4.36	4.58	6.86	9.15
	45°	2.49	3.52	2.49	4.56	6.10	4.56	4.97	7.46	9.94
	50°	2.67	3.70	2.67	4.74	6.46	4.74	5.33	8.00	10.66
	60°	2.97	4.01	2.97	5.04	7.06	5.04	5.94	8.91	11.88
	70°	3.19	4.23	3.19	5.26	7.52	5.26	6.39	9.58	12.77
	80°	3.34	4.37	3.34	5.41	7.81	5.41	6.67	10.01	13.34
	90°	3.38	4.42	3.38	5.45	7.92	5.45	6.77	10.15	13.54

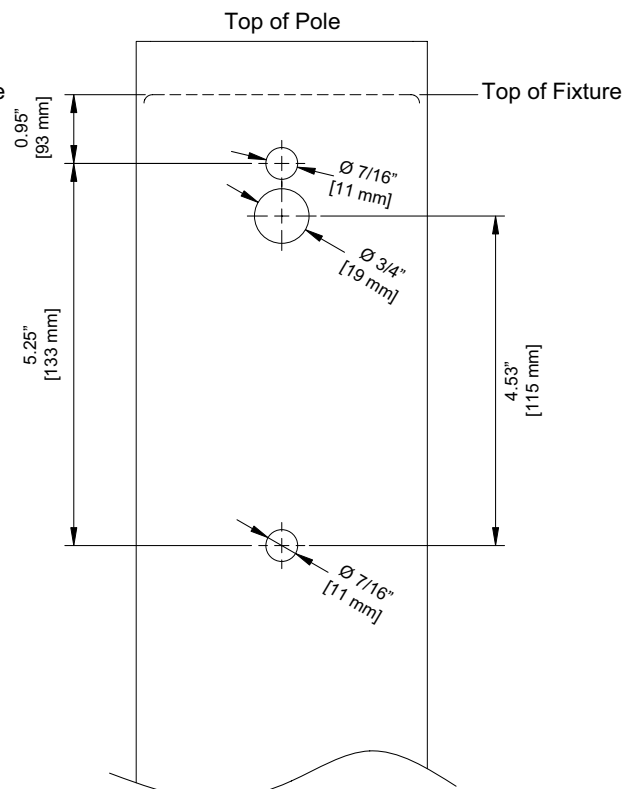
		Effective Projected Area (EPA ft²)					
Luminaire Quantity & Orientation		Single	2 @ 90	2 @ 180	3 @ 90	3 @ 120	4 @ 90
Mounting Option	Tilt						
SPM & RPM Sq. & Rd. Pole Arm	0°	1.01	1.57	2.01	2.58	2.40	2.58
MAF Mast Arm Fitter	0°	1.12	1.57	2.25	2.69	2.30	2.69

Fixed & Adjustable Square & Round Pole Arm Mount Drilling Dimensions for New Construction

(for additional details, please consult online installation instructions)



New Construction Pole Mount Drilling Dimensions
'SPM' 'RPM'



New Construction Pole Mount Drilling Dimensions
'ASPM' 'ARPM'