



Lumec TunnelView tunnel/underpass luminaires feature a sleek design that provides seamless replacement of existing HID luminaires. This fixture is available in three sizes, offers multiple lumen packages, and a complete array of optical distributions, making it an outstanding solution for all types of tunnel and underpass applications. Includes Service Tag, Signify's innovative way to provide assistance throughout the life of the product.

Project: _____

Location: _____

Cat.No: _____

Type: _____

Qty: _____

Notes: _____

Ordering guide

example: TULM-48L700-740-G1-R2M-UNV-DMG-OD-TLL-GY3

Prefix	LED module	Color Temperature	Generation	Distribution	Voltage	Dimming controls ⁴
TULM						
TULM TunnelView medium	48L350 48L530 48L700 48L1050 64L350 64L530 64L700 64L1050 ¹⁴ 80L350 80L530 80L700 80L900 ¹⁴	730 70CRI 3000K 740 70CRI 4000K 827 ¹¹ 80CRI 2700K	G1 Generation 1	<u>Asymmetrical:</u> R2M Type II Medium TW2 ¹² Type II Wall Mount DK Type II Short R3M Type III Medium R3W Type III Wide 4 Type IV <u>Symmetrical:</u> 5 Type V (SYMM) SN Narrow <u>Counter beam:</u> CBL ⁸ Ceiling	UNV 120-277V HVU 347-480V 120 ² 120V 208 ² 208V 240 ² 240V 277 ² 277V 347 ² 347V 480 ² 480V	DMG ⁵ 0-10V DALI ¹ Digitally Addressable Lighting Interface SRD ¹ Sensor Ready Driver standard configuration SRD1 ¹ Sensor Ready Driver alternate configuration
Mounting Bracket	Other Options				Finish	
Od ⁸ Fix 0° N5d Fix -5° N10d Fix -10° N15d Fix -15° P5d Fix +5° P10d Fix +10° P15d Fix +15° SLF ¹⁵ Slip Fitter SV Swivel	API Factory Installed NEMA label, ANSI C136.15 compliant F1 ² Single Fuse Holder F2 ^{2,15} Double Fuse Holder JB1 Junction Box, 1" NPT entries JB2 Junction Box, 3/4" NPT entries NER Nyx Hemera Ready RCM7 ³ Remote install Tool less orientable receptacle with 7 pins SP2 20kV / 10kA Surge Protector (optional) TLRD7 ^{3,13,14} Receptacle for Twist-lock photocell or shorting cap, 7 pin TLRSR ⁶ SR receptacle TLL Tool Less Entry Latches VPA Vandal Proof Access BAC ¹⁶ Meets the requirements of the Buy American Act of 1933 (BAA) BABA ¹⁷ Meets the requirements of the Build America, Buy America Act (BABA)				BK Black BR Bronze GY3 Gray	

Accessories¹⁸ (ordered separately, field installed)

Model	
BXK	Bird spike
PH8 ^{1,10}	Twist-lock Photoelectric Cell, UNV (120-277VAC)
PH8/347 ¹⁰	Twist-lock Photoelectric Cell, (347VAC)
PH8/480 ¹⁰	Twist-lock Photoelectric Cell, (480VAC)
PHXL ^{1,10}	Twist-lock Photoelectric Cell, extended life, UNV (120-277VAC)
PH9 ¹⁰	Shorting cap

Note: Mounting hardware included, uses dedicated mounting holes - do NOT remove lens).

- Not available with HVU, 347V and 480V.
- Specific voltage (120, 208, 240, 277, 347 or 480) must be specified with fusing options (F1 or F2).
- Use of photoelectric cell or shorting cap is required to ensure proper illumination.
- Select either DALI or DMG or SRD or SRD1 mandatory option.
- Please note this integrated feature comes standard in this product.
- Only available with SRD or SRD1 Driver Options.
- Only available with DMG Driver Options.
- Only recommended for Ceiling Mount applications.
- Not available with SRD Driver Options.
- TunnelView_TULM 03/25 page 1 of 7
- TLRD7 or RCM7 must be selected for this option.
- Extended lead-time may apply. Consult factory.
- Recommended for Wall Mounting.
- Available with SLF & SV mounting bracket only.
- Not available with NER option.
- Not available with JB1 or JB2 options.
- Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

- Build America, Buy America Act (BABA). BABA establishes the minimum domestic content requirements that federal agencies must apply. This product is manufactured in the US and has a domestic content of 55% or more. This BABA designation does not address the "Buy America" domestic content requirements, which may be stricter, imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by federal agencies.
- Consult Signify to confirm whether specific accessories are BAA-compliant.



TULM TunnelView

Tunnel/Underpass luminaire

Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours

Ambient Temperature °C	Drive current	Calculated L70 Hours	L70 per TM-21	Lumen Maintenance % at 100,000 hrs
25°C	up to 1050 mA	>100,000 hours	>36,000 hours	>97%

LED Wattage Values

Ordering Code	Total LEDs	System Current (mA)	Average System Watts ¹	Wattage Label ²
TULM-48L350	48	350	52	50
TULM-48L530	48	530	76	80
TULM-48L700	48	700	104	100
TULM-48L1050 ¹⁶	48	1050	161	160
TULM-64L350	64	350	71	70
TULM-64L530	64	530	106	110

Ordering Code	Total LEDs	System Current (mA)	Average System Watts ¹⁴	Wattage Label ¹⁵
TULM-64L700	64	700	140	140
TULM-64L1050 ³	64	1050	218	220
TULM-80L350	80	350	87	90
TULM-80L530	80	530	130	130
TULM-80L700	80	700	178	180
TULM-80L900 ³	80	900	227	230

1. Typical values, rounded.

2. As per ANSI C136.15-2015. Consult factory for other labeling needs.

3. Rated for +40°C / +104°F.

TULM TunnelView

Tunnel/Underpass luminaire

LED Lumen Values – 2700K

Ordering Code	DK		R2M		R3M		R3W		4		5		SN		CBL		TW2	
	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
TULM-48L350-827	6133	119	6007	116	5884	114	5845	113	5806	112	5707	110	6269	121	6182	120	6048	117
TULM-48L530-827	8703	114	8524	112	8348	110	8294	109	8238	108	8100	106	8896	117	8773	115	8580	113
TULM-48L700-827	11182	108	10951	106	10727	104	10658	103	10584	102	10406	101	11430	110	11272	109	11024	107
TULM-48L1050-827	15637	97	15314	95	15001	93	14902	92	14801	92	14551	90	15982	99	15762	98	15416	96
TULM-64L350-827	8387	118	8212	116	8045	113	7992	113	7937	112	7804	110	8571	121	8453	119	8267	117
TULM-64L530-827	11869	112	11624	110	11386	108	11312	107	11233	106	11045	104	12132	115	11964	113	11701	111
TULM-64L700-827	14956	107	14647	104	14348	102	14254	102	14156	101	13918	99	15287	109	15077	108	14746	105
TULM-64L1050-827	20534	94	20110	92	19699	90	19571	90	19436	89	19110	88	20989	96	20699	95	20245	93
TULM-80L350-827	10439	120	10224	118	10014	115	9949	114	9881	114	9715	112	10670	123	10522	121	10291	118
TULM-80L530-827	14781	113	14476	111	14179	109	14087	108	13991	107	13755	106	15108	116	14900	114	14572	112
TULM-80L700-827	18687	105	18301	103	17927	101	17810	100	17687	99	17390	98	19101	107	18837	106	18424	104
TULM-80L900-827	22656	100	22188	98	21734	96	21592	95	21444	94	21083	93	23158	102	22838	101	22337	98

LED Lumen Values – 3000K

Ordering Code	DK		R2M		R3M		R3W		4		5		SN		CBL		TW2	
	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
TULM-48L350-730	7434	144	7281	141	7132	138	7086	137	7036	136	6918	134	7599	147	7494	145	7330	142
TULM-48L530-730	10549	138	10331	136	10119	133	10054	132	9985	131	9818	129	10783	142	10634	140	10400	136
TULM-48L700-730	13553	131	13274	128	13002	126	12918	125	12829	124	12614	122	13854	134	13663	132	13363	129
TULM-48L1050-730	18954	117	18562	115	18182	113	18064	112	17940	111	17638	109	19373	120	19106	118	18686	116
TULM-64L350-730	10165	143	9954	140	9751	138	9688	137	9621	136	9460	133	10390	147	10247	145	10021	141
TULM-64L530-730	14386	136	14089	133	13801	131	13711	130	13617	129	13388	127	14705	139	14502	137	14184	134
TULM-64L700-730	18129	129	17755	127	17391	124	17277	123	17159	122	16870	120	18531	132	18274	130	17873	127
TULM-64L1050-730	24889	114	24376	112	23877	109	23722	109	23559	108	23163	106	25441	117	25090	115	24539	112
TULM-80L350-730	12652	145	12392	142	12138	140	12059	139	11976	138	11775	135	12933	149	12754	147	12475	143
TULM-80L530-730	17916	137	17547	135	17187	132	17075	131	16958	130	16673	128	18313	141	18060	139	17664	136
TULM-80L700-730	22651	127	22183	125	21729	122	21588	121	21439	121	21079	118	23153	130	22833	128	22332	126
TULM-80L900-730	27461	121	26895	118	26344	116	26173	115	25993	114	25555	112	28070	124	27682	122	27074	119

LED Lumen Values – 4000K

Ordering Code	DK		R2M		R3M		R3W		4		5		SN		CBL		TW2	
	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
TULM-48L350-740	8126	157	7958	154	7796	151	7744	150	7690	149	7562	146	8306	161	8191	158	8012	155
TULM-48L530-740	11529	151	11292	148	11060	145	10989	144	10914	143	10730	141	11785	155	11623	153	11368	149
TULM-48L700-740	14813	143	14508	140	14212	137	14120	136	14023	135	13787	133	15142	146	14934	144	14605	141
TULM-48L1050-740	20717	128	20288	126	19873	123	19744	122	19608	121	19278	119	21175	131	20883	129	20424	127
TULM-64L350-740	11110	157	10880	153	10658	150	10589	149	10516	148	10339	146	11356	160	11199	158	10954	154
TULM-64L530-740	15725	149	15400	146	15085	143	14987	142	14882	141	14633	138	16072	152	15851	150	15503	147
TULM-64L700-740	19815	141	19406	138	19008	136	18884	135	18755	134	18439	132	20254	144	19974	142	19536	139
TULM-64L1050-740	27204	125	26643	122	26098	120	25928	119	25751	118	25317	116	27806	127	27423	126	26821	123
TULM-80L350-740	13829	159	13544	156	13267	152	13181	152	13090	150	12870	148	14136	162	13941	160	13635	157
TULM-80L530-740	19582	150	19179	147	18786	144	18663	143	18535	142	18223	140	20016	154	19740	151	19306	148
TULM-80L700-740	24757	139	24246	136	23750	134	23595	133	23433	132	23039	130	25306	142	24956	140	24409	137
TULM-80L900-740	30015	132	29396	129	28794	127	28607	126	28410	125	27931	123	30680	135	30256	133	29592	130

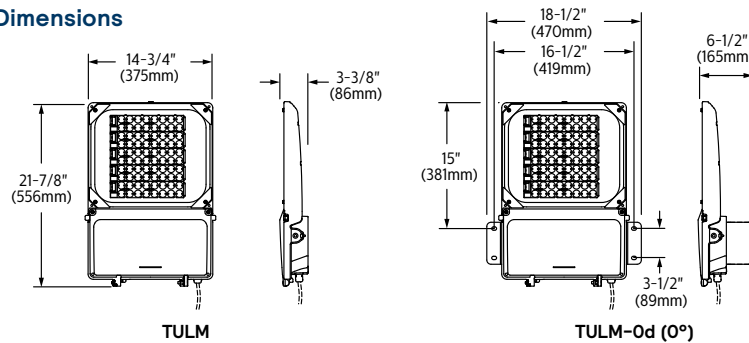
Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout – contact Applications at outdoorlighting.applications@signify.com. Consult DLC QPL to confirm your specific fixture selection is DLC approved.

Note: Some data may be scaled based on tests of similar but not identical luminaries.

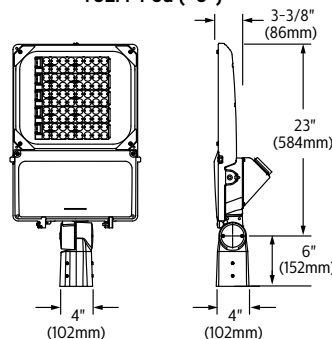
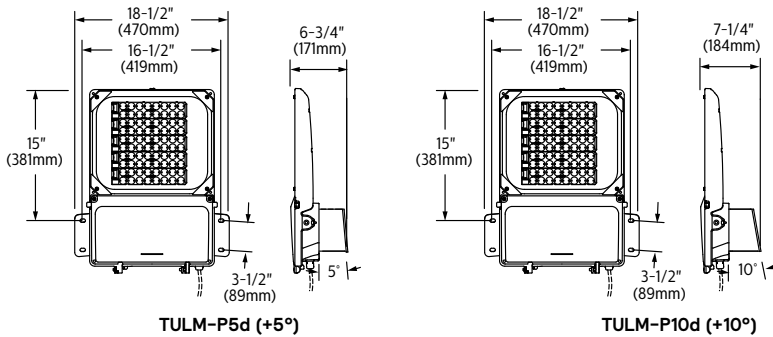
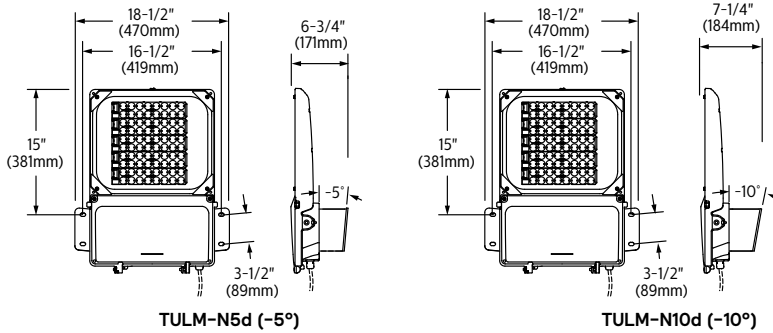
TULM TunnelView

Tunnel/Underpass luminaire

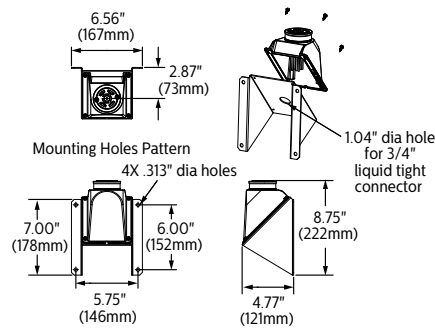
Dimensions



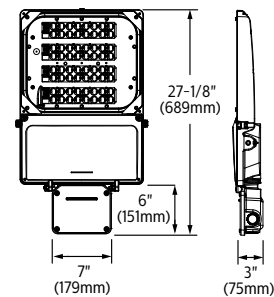
	Weight	EPA	
		Horizontal	Vertical
TULM	20lbs	0.62 sq. ft	2.93 sq. ft
TULM-SV	24lbs		
TULM-SF	23lbs		
TULM 0-15°	24lbs	+0.15 sq. ft	+0.35 sq. ft
+JB1/JB2 option	+3.5lbs		



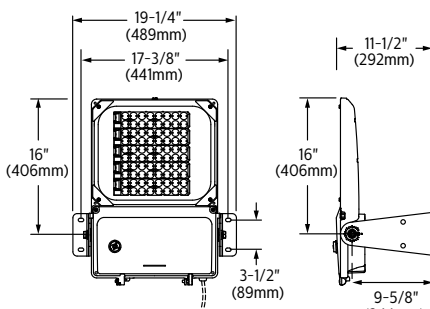
TULM-SLF
(Shown with optional TLRD7)



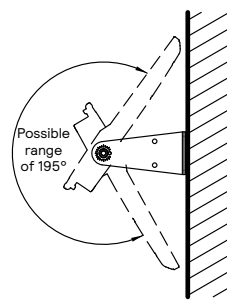
RCM7



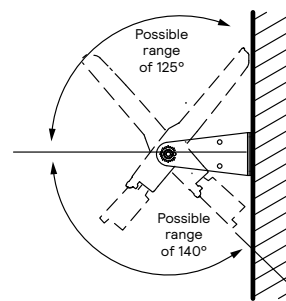
JB1 / JB2 option



TULM-SV
(Shown with optional TLRSR)



TULM-SV

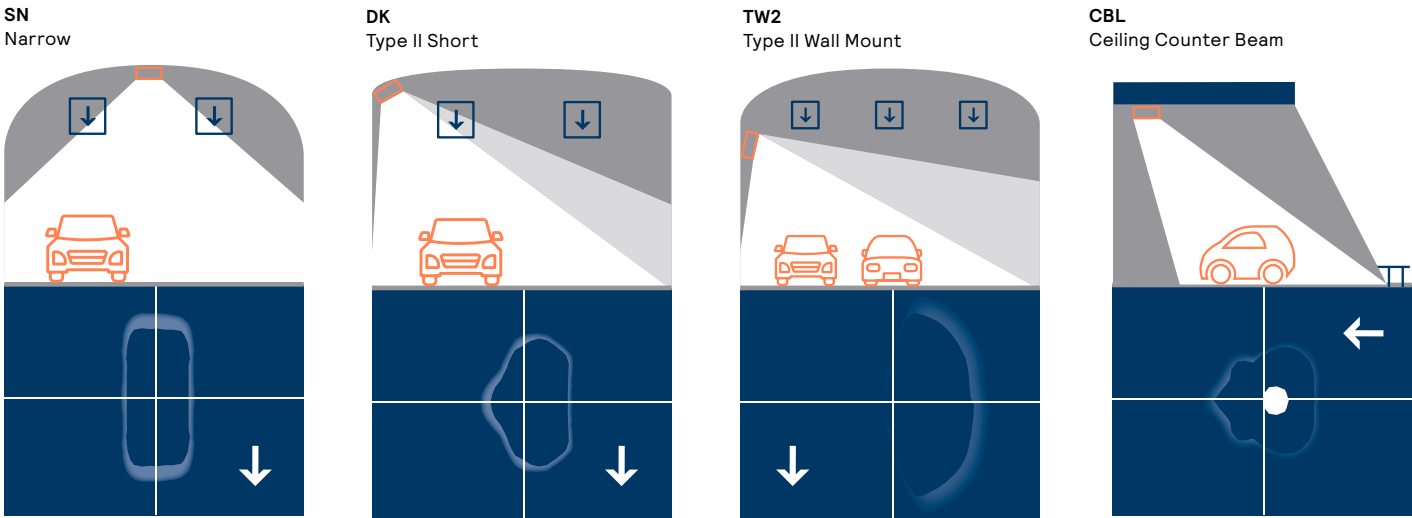


TULM-SV with JB1 / 2 options

TULM TunnelView

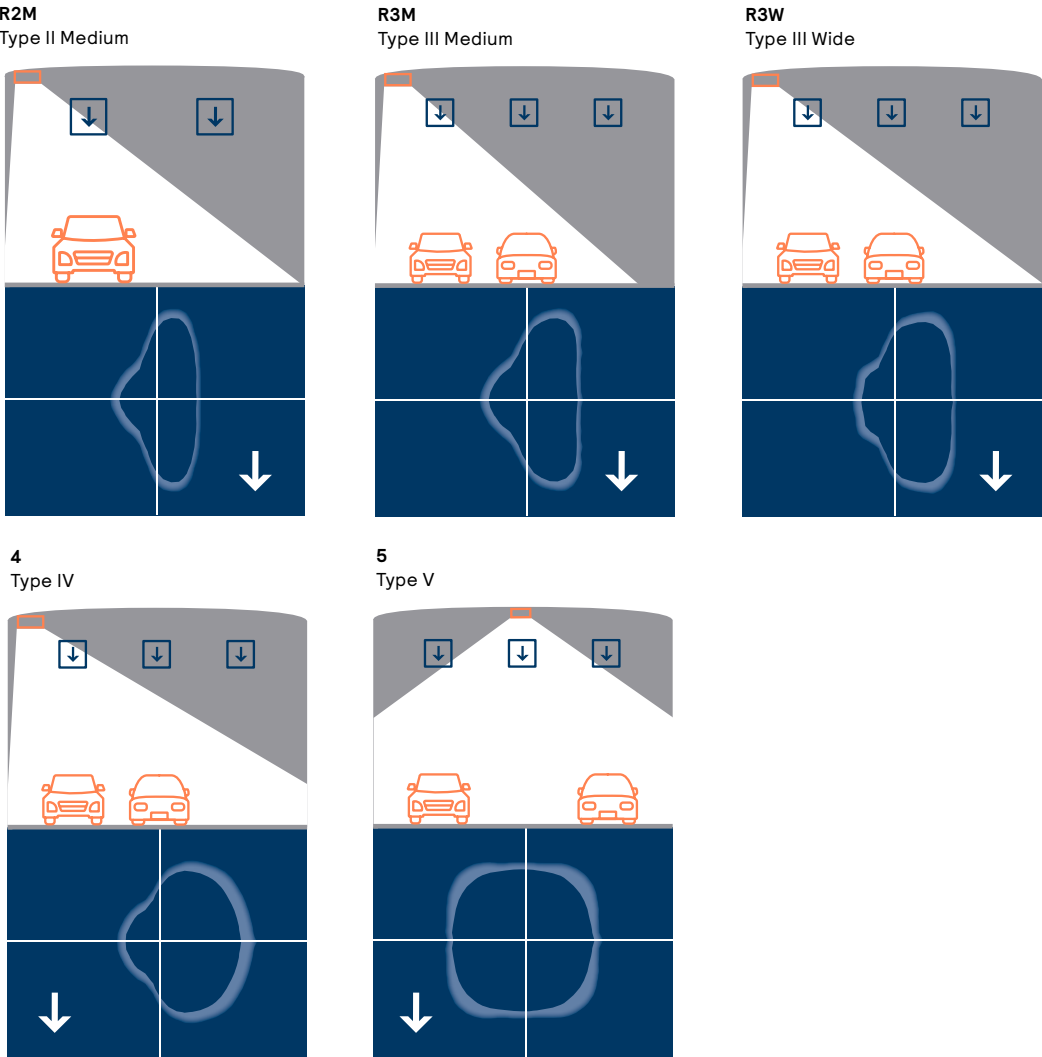
Tunnel/Underpass luminaire

Tunnel Distributions



Arrows indicate traffic direction

Underpass Distributions



Arrows indicate traffic direction

TULM TunnelView

Tunnel/Underpass luminaire

Specifications

Housing

Made of a low copper die cast Aluminum alloy (A360). Door is complete with hinges and is secured with flanged hex head screws with slotted drive providing access to electronic components and to a terminal block. Door is removable and is secured to prevent accidental dropping or disengagement. Compatible with 1/4" flat blade screwdriver. Complete with ANSI label as per C136.15-2015 to identify wattage and source (included in box). Housing (including electrical compartment) rated IP66 per ANSI C136.37.

Light Engine

Composed of 5 main components: Heat Sink, Lens, LED Module, Optical System, Driver. Electrical components are RoHS compliant. LEDs tested by ISO 17025 2005 accredited lab in accordance with IESNA LM 80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM 21. Metal core board ensures greater heat transfer and longer lifespan.

Lens: Made of soda-lime clear tempered glass flat lens, mechanically assembled and sealed onto the lower part of the heat sink IK09.

LED Module: Composed of high performance white LEDs. Color temperature as per ANSI/NEMA bin 2700 Kelvin nominal (2725 ±145K) CRI 80 min, 3000 Kelvin nominal (3045K +/-175K) or 4000 Kelvin nominal (3985K +/- 275K), CRI 70 Min. 75 Typical. Other CCT/CRI also available, consult factory.

Optical System: Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance.

Heat Sink: Built in the housing, designed to ensure high efficacy and superior cooling by natural convection air flow pattern always close to LEDs and driver optimizing their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling). Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +50°C / +122°F unless otherwise specified, refer to LED Wattages Values Table.

Driver: High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 or 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Controls: Fixture is compatible with most controls system and can integrate proprietary and third parties control modules directly within the electrical compartment.

Integrated Features

DMG: Dimmable driver 0-10V.

SP1: Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA.

Please note that these integrated features always come with Tunnel/Underpass luminaire.

Driver and Luminaire Options

DALI: Pre-set driver compatible with the DALI control system.

SRD: Sensor Ready Driver including SR communication (used for dimming and other functionalities), 24V auxiliary supply and a logical signal input (LSI) connected to the NEMA twist lock receptacle and bottom TLRSR receptacle, if these options included/chosen. This configuration is compatible with Interact City controllers.

SRD1: Sensor Ready Driver including SR communication (used for dimming and other functionalities) but with 24V auxiliary supply and a logical signal input (LSI) not connected to the NEMA twist lock if this option included/chosen. If TLRSR receptacle option included, standard SR communication, 24V auxiliary supply and LSI are connected to the TLRSR receptacle.

SP2: 20kV/10kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

TLRD7*: Tool Less orientable receptacle with 7 pins enabling dimming, can be used with a twist lock Interact City or photoelectric cell or a shorting cap. This add-on module is rated IP54.

TLRSR: SR Sensor connector, installed in fixture door. Shipped with protective cover.

API: Factory Installed NEMA label, ANSI C136.15-2015 compliant. Consult factory for other labeling needs.

F1: Fusing, single (120, 277 or 347VAC) installed in electrical compartment

F2: Fusing, double (208, 240 or 480VAC) installed in electrical compartment

JB1: Junction Box option, with 3 conduct entries, 1" NPT, suitable for through wire and continuous row mounting, complete with 2 aluminum hole plugs

JB2: Junction Box option, with 3 conduct entries, 3/4" NPT, suitable for through wire and continuous row mounting, complete with 2 aluminum hole plugs

NER: Fixture is set-up in factory to receive Nyx Hemera TLAC modules. (Modules can be factory installed as well. Consult factory for details)

TLL: Tool Free access 316 stainless steel latches.

VPA: Vandal Proof hardware to prevent access to internal components, 316 stainless steel, complete with Ceramic primer seal to reduce seizing of the parts, also offers a high resistance to corrosion.

RCM7*: Remote install Tool less orientable receptacle with 7 pins enabling dimming and additional functionality (to be determined), can be used with a twist lock Interact City node or photoelectric cell or a shorting cap, Rated IP54. (wiring to fixture not included)

* Use of photoelectric cell or shorting cap is required to ensure proper illumination.

Luminaire Useful Life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, System Reliability Tool, Advance data and LED manufacturer LM-80/TM-21 data, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C.

Luminaire Useful Life accounts for LED lumen maintenance AND all of these additional factors including: LED life, driver life, PCB substrate, solder joints, on/off cycles, burning hours and corrosion.

Wiring

The connection of the luminaire is done using a terminal block connector 600V, 85A for use with #2-14 AWG. wires from the primary circuit, located inside the housing electrical compartment. Due to the inrush current that occurs with electronic drivers, recommend using a 10Amp time delay fuse to avoid unwanted fuse blowing (false tripping) that can occur with normal or fast acting fuses. Housing is completed with a 7/8" (22mm) diameter unthreaded mounting hole to accept a 1/2 NPT liquid tight cord grips connector IP66 rated minimum. Wiring, connector, sealing washer and locknut supplied by others.

Mounting Options

All Brackets are 316 Stainless Steel unless otherwise specified.

Fixed brackets (refer to Dimension section for tilt orientation).

SV: Swivel Mount

SLF: Slip Fitter made of low copper Aluminum alloy (A360) for high resistance to corrosion, adjustable knuckle has 5 degree aiming increments with integral interlocking teeth and bolt to secure aiming in place, integral cast-in aiming marks. Fits on a 2-3/8" thru 3.0" O.D. by minimum 3-3/4" long tenon. AWG 16-3 wires exiting 4" through the Slip Fitter. Integral splice compartment for field wiring with cULus Wet Location rated access cover with seal around entire perimeter.

Hardware

All exposed screws shall be 316 stainless steel, complete with Ceramic primer seal to reduce seizing of the parts, also offers a high resistance to corrosion. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

TULM TunnelView

Tunnel/Underpass luminaire

Specifications (continued)

Finish

Color in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance over anodized pre-finish. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard. The surface treatment achieves a minimum of 5000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

LED products manufacturing standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Vibration Resistance

The TULM luminaires meet the ANSI C136.31-2018 American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications.

Certifications and Compliance

cULus Listed for Canada and USA. Luminaire meets DOE and MSSLC Model Specification for LED Roadway Luminaires. Most versions are DesignLights Consortium® qualified, consult DLC QPL to confirm your specific fixture selection is approved. Luminaire complies with or exceeds the following ANSI C136 standards: .2, .3, .10, .14, .15, .22, .25, .27, .31, .37, .41.

Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Signify Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away. For more details visit: philips.com/servicetag

Limited Warranty

10-year limited warranty.

See signify.com/warranties for details and restrictions.