

# Urban

Transit

TR20 Pendant



The versatility and character of Lumec **Transit** LED post top and pendant luminaires is clear. Combining stunning industrial looks with outstanding photometric performance, the Transit luminaires blend modern and traditional style with leading-edge engineering that have made Lumec luminaires the perfect choice for effective urban area lighting.

Project:	
Location:	
Cat.No:	
Туре:	
Lamps:	Qty:
Nata -	

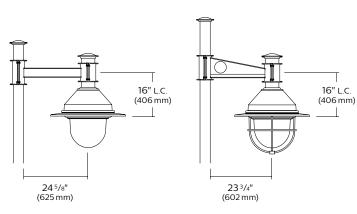
### Ordering guide

example: TR20-80W48LED4K-G2-ACDR-LE3A-120-DMG-GRD-GN6TX

eries	LED module	Gen.	Globe	Optical system	Voltage	Driver options	Luminaire options	Poles/Brackets	Finish
R20		G2							
R20	3000K 35W32LED3K <sup>1</sup> 55W32LED3K <sup>1</sup> 55W32LED3K 80W48LED3K 4000K 35W32LED4K <sup>1</sup> 55W32LED4K <sup>1</sup> 55W32LED4K 72W32LED4K 80W48LED4K	G2 Gen2	ACDR Acrylic Globe	LE2A <sup>2</sup> Type II (ASYM) w/globe LE3A <sup>2</sup> Type III (ASYM) w/globe LE4A <sup>2</sup> Type IV (ASYM) w/globe LE2F Type II (ASYM) w/flat glass lens LE2S Type II (ASYM) w/sag glass lens LE3F Type III (ASYM) w/flat glass lens LE3F Type III (ASYM) w/flat glass lens LE4F Type IV (ASYM) w/flat glass lens LE4S Type IV (ASYM) w/flat glass lens LE5S Type V (SYMM) w/flat glass lens LE5F <sup>3</sup> Type V (SYMM) w/flat glass lens LE5S <sup>3</sup> Type V (SYMM) w/sag glass lens	120 208 240 277 347 480	AST³ Pre-set driver for progressive start-up CDMGE25³ 8 hrs. 25% reduction CDMGE50³ 8 hrs. 50% reduction CDMGE75³ 8 hrs. 75% reduction CDMGM25³ 6 hrs. 25% reduction CDMGM50³ 6 hrs. 50% reduction CDMGM75³ 6 hrs. 75% reduction CDMGM50° 6 hrs. 75% reduction CDMGS25³ 4 hrs. 75% reduction CDMGS25° 4 hrs. 75% reduction CDMGS50° 4 hrs. 50% reduction CDMGS75° 4 hrs. 75% reduction CDMG93° Dimming level determined by the user CLO³ Pre-set driver to manage lumen depreciation DMG 0-10V OTL³ Pre-set driver to signal end of life of the lamp	GRD Decorative Guard HS House Side Shield SP2 20kV/20kA Surge Protector (optional)	Consult with signify.com/ outdoorluminaires for details and the complete line of Signify poles and brackets.	Textured BE2TX Midnight Blue BE6TX Ocean Blue BE8TX Royal Blue BG2TX Sandstone BKTX Black BRTX Bronze GN4TX Blue Green GN6TX Forest Green GN8TX Green GY3TX Medium Grey RD2TX Burgundy RD4TX Scarlet WHTX White Other GR Gray Sandtex
Globe N	ilable 347-480 vo Material ACDR is r Ailable with HS op	equired	with this	optical system.					NP Natural Aluminur TG Hammertone Gol

## **Urban Luminaire**

#### **Dimensions**



TR20 (shown w/globe & SN bracket)

EPA: 2.38 sq.ft. Weight: 46 lbs. (20.9 kg)

TR20 (shown w/globe, GRD option & TN bracket)

EPA: 2.70 sq.ft. Weight: 51lbs. (23.1kg)

16" L.C. (406 mm) 43 <sup>1</sup>/<sub>2</sub>" (1105 mm)

TR20 (shown w/sag lens & UN bracket)

EPA: 4.20 sq.ft. Weight: 53 lbs. (24.0 kg)

#### LED Wattage and Lumen Values: for TR20 with Flat lens

			Average				LE3F			LE4F			LE5F		
Ordering Code: Flat lens (3000K)	Total LEDs	LED current (mA)	System Wattage (W)	Lumen Output	Efficacy (LPW)	BUG Rating									
TR20-35W32LED3K-G2	32	350	37	3720	101	B1-U0-G1	3599	97	B1-U0-G1	3742	101	B1-U0-G1	3787	102	B2-U0-G1
TR20-55W32LED3K-G2	32	530	54	5336	99	B1-U0-G1	5162	96	B1-U0-G1	5367	99	B1-U0-G1	5432	101	B3-U0-G1
TR20-72W32LED3K-G2	32	700	73	6730	92	B2-U0-G1	6511	89	B1-U0-G1	6769	93	B1-U0-G2	6851	94	B3-U0-G1
TR20-55W48LED3K-G2	48	350	54	5580	103	B1-U0-G1	5399	100	B1-U0-G1	5613	104	B1-U0-G1	5681	105	B3-U0-G1
TR20-80W48LED3K-G2	48	530	80	8004	100	B2-U0-G1	7743	97	B1-U0-G2	8051	101	B2-U0-G2	8148	102	B3-U0-G2

		Average	LE2F			LE3F			LE4F			LE5F			
Ordering Code: Flat lens (4000K)	Total LEDs	LED current (mA)	System Wattage (W)	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)		Lumen Output	Efficacy (LPW)	BUG Rating
TR20-35W32LED4K-G2	32	350	37	4166	113	B1-U0-G1	4031	109	B1-U0-G1	4191	113	B1-U0-G1	4241	115	B3-U0-G1
TR20-55W32LED4K-G2	32	530	54	5976	111	B2-U0-G1	5782	107	B1-U0-G1	6012	111	B1-U0-G2	6084	113	B3-U0-G1
TR20-72W32LED4K-G2	32	700	73	7537	103	B2-U0-G1	7292	100	B1-U0-G2	7582	104	B2-U0-G2	7673	105	B3-U0-G2
TR20-55W48LED4K-G2	48	350	54	6250	116	B2-U0-G1	6046	112	B1-U0-G1	6287	116	B1-U0-G2	6362	118	B3-U0-G1
TR20-80W48LED4K-G2	48	530	80	8964	112	B2-U0-G1	8673	108	B2-U0-G2	9017	113	B2-U0-G2	9126	114	B3-U0-G2

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 signify.com/outdoorluminaires.

Note: Some data may be scaled based on tests of similar. But not identical luminaires.

## **Urban Luminaire**

### LED Wattage and Lumen Values: for TR20 with Sag lens

			Average				LE3S			LE4S			LE5S		
Ordering Code: Sag lens (3000K)	Total LEDs	LED current (mA)	System Wattage (W)	Lumen Output	Efficacy (LPW)	BUG Rating									
TR20-35W32LED3K-G2	32	350	37	3823	103	B1-U0-G1	3760	102	B1-U0-G1	3707	100	B1-U0-G1	3838	104	B3-U0-G1
TR20-55W32LED3K-G2	32	530	54	5484	102	B1-U0-G1	5393	100	B1-U0-G1	5317	98	B1-U0-G2	5505	102	B3-U0-G1
TR20-72W32LED3K-G2	32	700	73	6916	95	B2-U0-G1	6802	93	B1-U0-G2	6706	92	B1-U0-G2	6943	95	B3-U0-G2
TR20-55W48LED3K-G2	48	350	54	5735	106	B1-U0-G1	5640	104	B1-U0-G1	5561	103	B1-U0-G2	5757	107	B3-U0-G1
TR20-80W48LED3K-G2	48	530	80	8225	103	B2-U0-G2	8090	101	B2-U0-G2	7976	100	B1-U0-G2	8258	103	B3-U0-G2

			Average	LE2S LE3S			LE4S			LE5S					
Ordering Code: Sag lens (4000K)	Total LEDs	LED current (mA)		Lumen Output		BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
TR20-35W32LED4K-G2	32	350	37	4282	116	B1-U0-G1	4211	114	B1-U0-G1	4152	112	B1-U0-G1	4299	116	B3-U0-G1
TR20-55W32LED4K-G2	32	530	54	6142	114	B1-U0-G1	6040	112	B1-U0-G1	5955	110	B1-U0-G2	6166	114	B3-U0-G1
TR20-72W32LED4K-G2	32	700	73	7746	106	B2-U0-G1	7618	104	B2-U0-G2	7511	103	B1-U0-G2	7776	107	B3-U0-G2
TR20-55W48LED4K-G2	48	350	54	6423	119	B2-U0-G1	6317	117	B1-U0-G1	6228	115	B1-U0-G2	6448	119	B3-U0-G2
TR20-80W48LED4K-G2	48	530	80	9212	115	B2-U0-G2	9061	113	B2-U0-G2	8933	112	B2-U0-G2	9249	116	B4-U0-G2

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Note: Some data may be scaled based on tests of similar. But not identical luminaires.

### **LED Wattage and Lumen Values:** for TR20 with Globe

		Average		LE2A			LE3A			LE4A			
Ordering Code: Globe (3000K)	Total LEDs	LED current (mA)	System Wattage (W)	Lumen Output	Efficacy (LPW)		Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	
TR20-35W32LED3K-G2	32	350	37	3700	100	B1-U3-G1	3591	97	B1-U2-G1	3747	101	B1-U2-G1	
TR20-55W32LED3K-G2	32	530	54	5307	98	B2-U3-G2	5151	95	B1-U3-G1	5375	100	B1-U3-G2	
TR20-72W32LED3K-G2	32	700	73	6693	92	B2-U3-G2	6496	89	B1-U3-G2	6778	93	B1-U3-G2	
TR20-55W48LED3K-G2	48	350	54	5550	103	B2-U3-G2	5387	100	B1-U3-G1	5621	104	B1-U3-G2	
TR20-80W48LED3K-G2	48	530	80	7961	100	B2-U3-G2	7726	97	B2-U3-G2	8062	101	B1-U3-G2	

			Average							LE4A			
Ordering Code: Globe (4000K)	Total LEDs	LED current (mA)	System Wattage (W)	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	
TR20-35W32LED4K-G2	32	350	37	4144	112	B1-U3-G1	4022	109	B1-U2-G1	4197	113	B1-U2-G1	
TR20-55W32LED4K-G2	32	530	54	5944	110	B2-U3-G2	5769	107	B1-U3-G2	6020	111	B1-U3-G2	
TR20-72W32LED4K-G2	32	700	73	7497	103	B2-U3-G2	7276	100	B2-U3-G2	7592	104	B1-U3-G2	
TR20-55W48LED4K-G2	48	350	54	6216	115	B2-U3-G2	6033	112	B1-U3-G2	6295	117	B1-U3-G2	
TR20-80W48LED4K-G2	48	530	80	8916	111	B2-U3-G2	8653	108	B2-U3-G2	9029	113	B2-U3-G2	

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### **Urban Luminaire**

#### **Specifications**

#### Housing

Hood: Cast 356 aluminum dome, mechanically assembled on the luminaire.

Skirt: Spun 1100-0 aluminum, mechanically assembled on the luminaire.

#### Access-mechanism

A die cast A360 aluminum technical ring with latch and hinge. The mechanism shall offer tool free access to the inside of the luminaire. An embedded memory retentive gasket shall ensure weatherproofing

#### Light engine

LEDgine composed of 5 main components: Heat Sink / Lens / LED lamp / Driver / Optical System. Electrical components are RoHS compliant.

#### **LED** engine

Composed of high-performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000 Kelvin nominal (3985K +/-275K or 3710K to 4260K) or Warm white, 3000 Kelvin nominal (3045K +/- 175K or 2870K to 3220K), CRI 70 Min. 75 Typical.

LExF / LExS: Made of soda lime tempered glass lens, mechanically assembled and sealed onto the lower part of the heat sink.

LExA (Globe): Made of one-piece seamless injection-molded impact-resistant (DR) acrylic having an inner prismatic surface. The globe is mechanically assembled and sealed onto the lower part of the heat sink.

#### **Heat sink**

Made of cast aluminum optimizing the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device).

#### **Optical system**

Composed of high performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM 63, LM 79 and TM 15 (IESNA) certifying its photometric performance. Street side indicated.



Prismatic globe: IP66 rated optical system, composed of individual pre-oriented lens to achieve desired distribution, assembled with globe having an inner prismatic surface permanently sealed onto the lower part of the heat sink.

LE2A - Type II (ASYM) with globe (ACDR)

LE3A - Type III (ASYM) with globe (ACDR)

LE4A - Type IV (ASYM) with globe (ACDR)



Sag lens: IP66 rated optical system, composed of individual pre-oriented

lens to achieve desired distribution, assembled with a tempered-glass sag lens permanently sealed onto the lower part of the heat sink.

LE2S - Type II (ASYM) with sag glass lens

LE3S - Type III (ASYM) with sag glass lens

LE4S - Type IV (ASYM) with sag glass lens

LE5S - Type V (SYMM) with sag glass lens



Flat lens: IP66 rated optical system, composed of individual preoriented

lens to achieve desired distribution, assembled with a tempered-glass flat lens permanently sealed onto the lower part of the heat sink.

LE2F - Type II (ASYM) with flat glass lens

LE3F - Type III (ASYM) with flat glass lens

LE4F - Type IV (ASYM) with flat glass lens

LE5F - Type V (SYMM) with flat glass lens

#### Driver

Driver comes standard with dimming compatible 0-10V. High power factor of 90% minimum. 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.

Maximum ambient operating temperature from 40°F (40°C) to 130°F (55°C). Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221°F (105°C). 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).

#### **Driver options**

**AST**: Pre-set driver for progressive start-up of the LED module(s) to optimize energy management and enhance visual comfort at

CLO: Pre-set driver to manage the lumen depreciation by adjusting the power given to the LEDs offering the same lighting intensity during the entire lifespan of the LED module.

OTL: Pre-set driver to signal end of life of the LED module(s) for better fixture management.

DMG: Dimmable driver 0-10V

CDMG: Dynadimmer standard dimming functionalities including pre-programmed scenarios to suit many applications and needs from safety to maximum energy savings.

\* Contact factory for DALI options.

Order	D	imming	
Code	Scenario	Duration	Level
CDMGS25	Safety	4 hours	25%
CDMGS50	Safety	4 hours	50%
CDMGS75	Safety	4 hours	75%
CDMGM25	Median	6 hours	25%
CDMGM50	Median	6 hours	50%
CDMGM75	Median	6 hours	75%
CDMGE25	Economy	8 hours	25%
CDMGE50	Economy	8 hours	50%
CDMGE75	Economy	8 hours	75%

#### Surge protector

Surge protector 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 U.S. DOE (Department of Energy) MSSLC (Municipal Solid State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA. SP2 20kV/20kA optional.

#### **Luminaire options**



GRD Decorative guard



HS House side shield

20kV/20kA integral surge protector (optional)

### Urban Luminaire

#### **Specifications** (continued)

#### **Finish**

In accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with +/- 1 mils/24 microns of tolerance. 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 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

#### **Textured Finish Options:**

BE2TX: Textured Midnight Blue BE6TX: Textured Ocean Blue BE8TX: Textured Royal Blue BG2TX: Textured Sandstone BKTX: Textured Black BRTX: Textured Bronze GN4TX: Textured Blue Green GN6TX: Textured Forest Green GN8TX: Textured Dark Forest Green

GNTX: Textured Green
GY3TX: Textured Medium Grey
RD2TX: Textured Burgundy
RD4TX: Textured Scarlet

WHTX: Textured White

#### **Non-Textured Finish Options:**

**GR**: Gray Sandtex **NP**: Natural Aluminum **TG**: Hammer-tone Gold

#### Hardware

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

#### **LED Performance**

#### Wiring

Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding from luminaire.

#### 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, using LM-80 data from LED manufacturers and engineering prediction methods, the luminaire useful life is 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. Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +35°C / +95°F.

#### **Quality control**

Manufactured to ISO 9001 2008 standards and ISO 14001-2004 International Quality Standards Certification.

#### 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.

#### **Quality control**

Manufactured to ISO 9001 2008 standards and ISO 14001-2004 International Quality Standards Certification.

#### **Certifications and Compliance**

CSA, cULus Listed for Canada and USA Luminaires are DesignLights Consortium qualified.

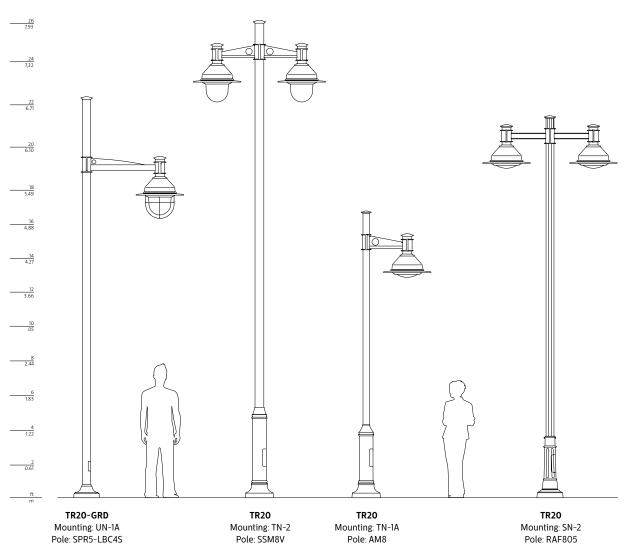
Predicted lumen depreciation data <sup>1</sup>										
Ambient Temperature (°C)	Driver mA	Calculated L <sub>70</sub> hours <sup>1,2</sup>	L <sub>70</sub> per TM-21 <sup>2,3</sup>	Lumen Maintenance % @ 60,000 hours						
25°C	700 mA	>100,000	>60,000	86%						

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.
 L<sub>70</sub> is the predicted time when LED performance depreciates to 70% of initial lumen output.

<sup>3.</sup> Calculated per IESNA TM21-11. Published L<sub>70</sub> hours limited to 6 times actual LED test hours.

## **Urban Luminaire**

#### **Poles**



Consult signify.com/outdoorluminaires for details and the complete line of Signify poles and brackets.

