

Project		Catalog #		Type	
Prepared by		Notes		Date	



# McGraw-Edison

## TTN TopTier Nano

Parking Garage Luminaire

### Product Features



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### Product Certifications

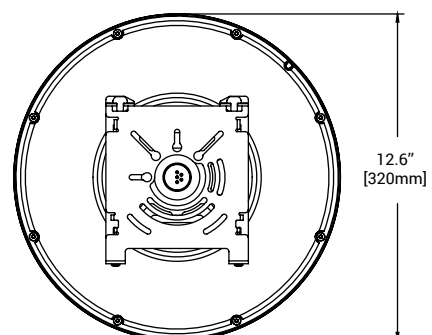
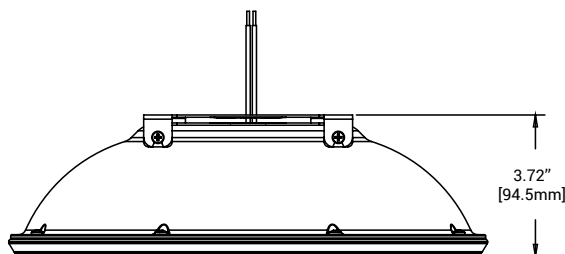


### Quick Facts

- Lumen packages range from 1,000 - 7,300
- Efficacies up to 133 lumens per watt
- Patented waveguide technology for maximum visual comfort
- Mount options: surface, pendant, trunnion, and direct conduit

### Dimensional Details

Base luminaire weight: 6.4 lbs (2.9 kg)



## Ordering Information

SAMPLE NUMBER: **TTN-D1-740-U-WQ-STM-30L-AP**

Product Family <sup>1</sup>	Configuration	Color Temperature	Voltage	Distribution	Mounting <sup>21</sup>	Lead Length <sup>6</sup>	Finish
<b>TTN</b> =TopTier Nano <b>BAA-TTN</b> =TopTier Nano, Buy American Act Compliant <sup>18</sup> <b>TAA-TTN</b> =TopTier Nano, Trade Agreements Act Compliant <sup>18</sup>	<b>D0</b> =1,000 Nominal Lumens <sup>17</sup> <b>D1</b> =3,000 Nominal Lumens <b>D2</b> =5,000 Nominal Lumens <b>D3</b> =7,000 Nominal Lumens	<b>735</b> =70 CRI, 3500K CCT <b>740</b> =70 CRI, 4000K CCT <b>750</b> =70 CRI, 5000K CCT <b>830</b> =80 CRI, 3000K CCT <b>AMB</b> =Amber 590nm <sup>20</sup>	<b>U</b> =120-277V <b>H</b> =347-480V <sup>2, 17</sup> <b>8</b> =480V <sup>2</sup> <b>9</b> =347V	<b>CQ</b> =Concentrated <b>MQ</b> =Medium <b>WQ</b> =Wide <b>RW</b> =Rectangular Wide <b>DL</b> =Drive Lane / Type 4	<b>[Blank]</b> =Surface Mount <sup>13</sup> <b>TMB</b> =Trunnion Mount with Connection Box <b>DPM</b> =Decorative Pendant Mount <sup>4</sup> <b>STM</b> =Stem Mount to 1/2" conduit <sup>13</sup> <b>STM3</b> =Stem Mount to 3/4" conduit <sup>13</sup>	<b>[Blank]</b> =6" <b>30L</b> =30" <b>36L</b> =36" <b>48L</b> =48" <b>72L</b> =72" <b>108L</b> =108" <b>120L</b> =120" <b>144L</b> =144"	<b>NW</b> =White <b>AP</b> =Grey <b>BZ</b> =Bronze <b>BK</b> =Black <b>DP</b> =Dark Platinum <b>GM</b> =Graphite Metallic
Options (Add as Suffix)					Accessories (Order Separately) <sup>19</sup>		
<b>F</b> =Single Fuse (120, 277 or 347V Specify Voltage) <b>FF</b> =Double Fuse (208, 240 or 480V Specify Voltage) <b>ITS</b> =Integral Transfer Switch <sup>3</sup> <b>CG</b> =Clear Glass <sup>7</sup> <b>SG</b> =Solite® Glass <sup>8</sup> <b>UPL1</b> =Uplight with 300 lumens <sup>5</sup> <b>UPL2</b> =Uplight with 600 lumens <sup>5</sup> <b>UPL3</b> =Uplight with 900 lumens <sup>5</sup> <b>TR</b> =Tamper Resistant Hardware <b>DALI</b> =DALI Driver <sup>12</sup>			<b>MS/DIM-L08</b> =Dimming Occupancy Sensor (<9' Mounting) <sup>9, 14</sup> <b>MS/DIM-L20</b> =Dimming Occupancy Sensor (9' - 20' Mounting) <sup>9, 14</sup> <b>SPB1</b> =Dimming Motion and Daylight Sensor, Bluetooth Programmable, < 8' Mounting <sup>9, 15</sup> <b>SPB2</b> =Dimming Motion and Daylight Sensor, Bluetooth Programmable, 8' - 20' Mounting <sup>9, 15</sup>			<b>MA1252</b> =Replacement 10kV Surge Module <b>TTN/WG</b> =Wire Guard <b>DPMS36-XX</b> =36" Pendant Mount Stem <sup>10, 11</sup> <b>DPMS48-XX</b> =48" Pendant Mount Stem <sup>10, 11</sup> <b>DPMS96-XX</b> =96" Pendant Mount Stem <sup>10, 11</sup> <b>DPMST36-XX</b> =36" Pendant Mount Stem with Tether <sup>10, 11, 21</sup> <b>DPMST48-XX</b> =48" Pendant Mount Stem with Tether <sup>10, 11, 21</sup> <b>DPMST96-XX</b> =96" Pendant Mount Stem with Tether <sup>10, 11, 21</sup> <b>FSIR-100</b> =Wireless Configuration Tool for Occupancy Sensor <sup>14</sup>	
<b>NOTES:</b> 1. DesignLights Consortium® Qualified. Refer to <a href="http://www.designlights.org">www.designlights.org</a> Qualified Products List under Family Models for details. 2. 480V not to be used with ungrounded or impedance grounded systems. 3. Max ambient 35°C for MQ, WQ, RW, and DL. Max ambient 25°C for CQ, -CG, and -SG options. Only available with U voltage. UL924 listed component. 4. Order Pendant Mount Stem accessory. 5. UPL not available with H or ITS. Nominal wattages/outputs: UPL1=3W/300lm; UPL2=5W/600lm; UPL3=7W/800lm. Max ambient 45°C for MQ, WQ, RW, and DL. Max ambient 35°C for CQ, -CG, and -SG options. 6. Choose lead length for Surface Mount and Stem Mount only. TMB and DPM lengths predetermined. 7. Not available with CQ. 8. Standard with CQ, option available with WQ only. 9. Includes integral photocell. 10. Specify color in place of XX. 11. Designed for use with Decorative Pendant Mount only. 12. Not available with H voltage or D0 configuration. Not compatible with MS/DIM or SPB sensors. 13. Specify Lead Length for wire harness length. 14. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay and more. 15. Sensor configuration mobile application required for configuration. See controls page for details. 17. D0 lumen package not available with H voltage option or DALI Driver option. 18. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to <a href="#">DOMESTIC.PREFERENCES</a> website for more information.Components shipped separately may be separately analyzed under domestic preference requirements. 19. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. 20. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose lumen package D1. 21. For installations in locations such as gymnasiums, arenas, sports complexes, multi-purpose rooms, and any other locations where the fixture potentially will be subject to impacts from external sources, DPM mounting is required, utilizing the stem kit with tether (DPMST*). Surface Mount, Trunnion Mount (TMB), and Stem Mount (STM/STM3) are prohibited in these applications.							

## Product Specifications

### Construction

- Low profile, die-cast aluminum housing provides a clean, symmetric aesthetic

### Optics

- Visual comfort in any configuration, utilizing patented waveguide technology
- Four lumen packages, ranging from 1,000 - 7,300 lumens
- Integral uplight option utilizes a dedicated light engine available in three outputs for reduced visual contrast and cave effect

### Electrical

- 40C – 50C operating temperature
- Greater than 90% lumen maintenance at 50,000 hours
- IP66 rated
- 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation
- 10kV surge module standard
- 0-10V dimming standard

### Mounting

- Surface mount directly to square or octagonal 4" surface junction box using quick mount bracket
- Optional stem mount bracket with set screw for direct 1/2" or 3/4" NPS conduit mounting
- Trunnion and decorative pendant mount options also available
- For installations in locations such as gymnasiums, arenas, sports complexes, multipurpose rooms, and any other locations where the fixture potentially will be subject to impacts from external sources, the stem kit with tether (DPMST\*) is required

### Finish

- 2.5 mil nominal TGIC powder coat thickness
- Finishes include white, black, bronze, gray, dark platinum and graphite metallic
- RAL and custom color matches available. Additional charges and lead time apply

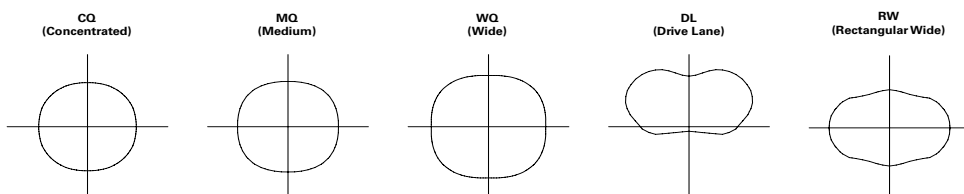
### Compliance

- DesignLights Consortium® Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details
- BAA / TAA options available, please consult your Cooper Lighting Solutions representative for further details

### Warranty

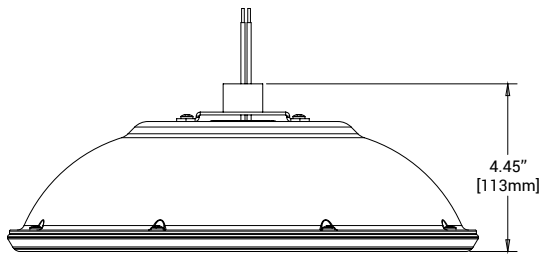
- Five-year limited warranty, consult website for details. [www.cooperlighting.com/legal](http://www.cooperlighting.com/legal)

## Optical Distributions

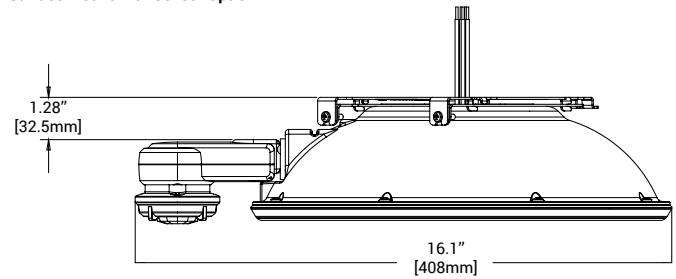


## Mounting Details

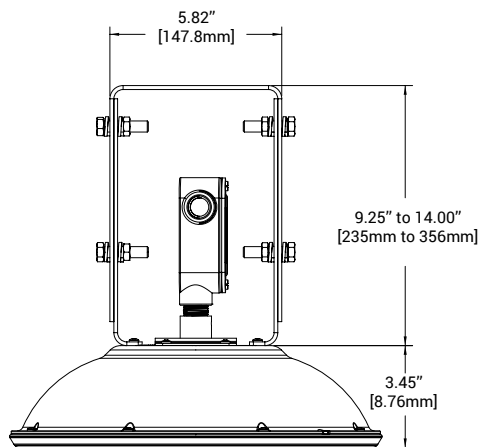
Stem Mount



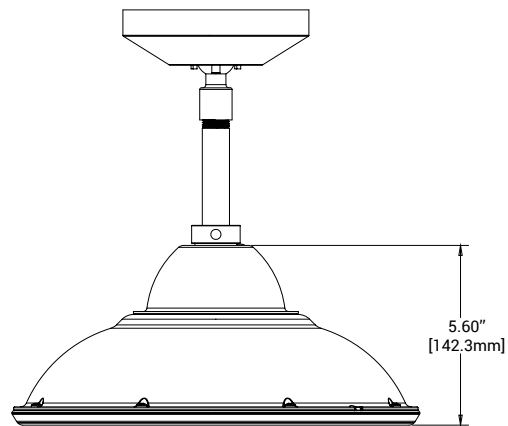
Surface Mount with Sensor Option



Trunnion Mount

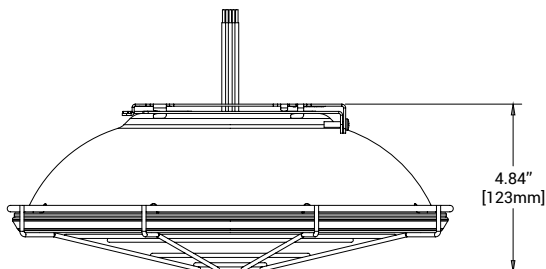


Decorative Pendant Mount



## Accessories

Wire Guard (TTN/WG)



## Energy and Performance Data

[View TopTier IES files](#)

## Power and Lumens (3000K/3500K/4000K/5000K)

Lumen Package			D0	D1	D2	D3
Power (Wattage)			10.7	26.4	42.5	59.2
Distribution						
3000K CCT 80 CRI	CQ Concentrated	Lumens	1,095	3,029	4,764	6,340
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	102	115	112	107
	MQ Medium	Lumens	1,142	3,158	4,966	6,609
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G2
		Lumens per Watt	107	120	117	112
	WQ Wide	Lumens	1,089	3,011	4,736	6,303
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2
		Lumens per Watt	102	114	111	106
	RW Rectangular Wide	Lumens	1,062	2,937	4,619	6,148
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G2
		Lumens per Watt	99	111	109	104
	DL Drive Lane / Type 4	Lumens	1,032	2,855	4,491	5,977
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
		Lumens per Watt	96	108	106	101
3500K CCT 70 CRI	CQ Concentrated	Lumens	1,158	3,205	5,040	6,708
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	108	121	119	113
	MQ Medium	Lumens	1,208	3,341	5,254	6,993
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G2
		Lumens per Watt	113	127	124	118
	WQ Wide	Lumens	1,152	3,186	5,011	6,669
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2
		Lumens per Watt	108	121	118	113
	RW Rectangular Wide	Lumens	1,123	3,108	4,887	6,505
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2
		Lumens per Watt	105	118	115	110
	DL Drive Lane / Type 4	Lumens	1,092	3,021	4,751	6,323
		BUG Rating	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
		Lumens per Watt	102	114	112	107
4000K/ 5000K CCT 70 CRI	CQ Concentrated	Lumens	1,222	3,380	5,316	7,076
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	114	128	125	120
	MQ Medium	Lumens	1,274	3,524	5,543	7,377
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2
		Lumens per Watt	119	133	130	125
	WQ Wide	Lumens	1,215	3,361	5,286	7,035
		BUG Rating	B1-U0-G1	B2-U0-G1	B3-U0-G2	B3-U0-G2
		Lumens per Watt	114	127	124	119
	RW Rectangular Wide	Lumens	1,185	3,278	5,155	6,861
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2
		Lumens per Watt	111	124	121	116
	DL Drive Lane / Type 4	Lumens	1,152	3,187	5,012	6,670
		BUG Rating	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G3
		Lumens per Watt	108	121	118	113

## Energy and Performance Data

### CQ, MQ and WQ Distributions

(Uplight Only)

Lumen Package	D0	D1	D2	D3	UPL1	UPL2	UPL3
Power (Wattage)	10.7	26.4	42.5	59.2	3.0	5.0	7.0
Input Current @ 120V (A)	0.07	0.22	0.36	0.50	0.02	0.04	0.06
Input Current @ 208V (A)	0.04	0.12	0.19	0.27	0.01	0.02	0.03
Input Current @ 240V (A)	0.04	0.11	0.18	0.25	0.01	0.02	0.03
Input Current @ 277V (A)	0.03	0.10	0.15	0.21	0.01	0.02	0.03
Input Current @ 347V (A)	0.03	0.08	0.12	0.17	0.02	0.02	0.03
Input Current @ 480V (A)	0.03	0.06	0.09	0.12	0.03	0.03	0.03

### DL and RW Distribution

(Uplight Only)

Lumen Package	D0	D1	D2	D3	UPL1	UPL2	UPL3
Power (Wattage)	10.7	26.4	42.5	59.2	3.0	5.0	7.0
Input Current @ 120V (A)	0.08	0.23	0.37	0.52	0.02	0.04	0.06
Input Current @ 208V (A)	0.04	0.12	0.20	0.28	0.01	0.02	0.03
Input Current @ 240V (A)	0.04	0.11	0.18	0.25	0.01	0.02	0.03
Input Current @ 277V (A)	0.03	0.10	0.16	0.22	0.01	0.02	0.03
Input Current @ 347V (A)	0.03	0.08	0.13	0.18	0.02	0.02	0.03
Input Current @ 480V (A)	0.03	0.06	0.09	0.13	0.03	0.03	0.03

### Lumen Maintenance

Lumen Package	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
D0-D3	25°C	97.6%	94.3%	93.0%	88.1%	270,000
	40°C	96.7%	92.4%	90.8%	84.4%	200,000
	50°C	96.4%	91.8%	90.0%	83.3%	185,000

\* Supported by IES TM-21 standards

\*\*Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

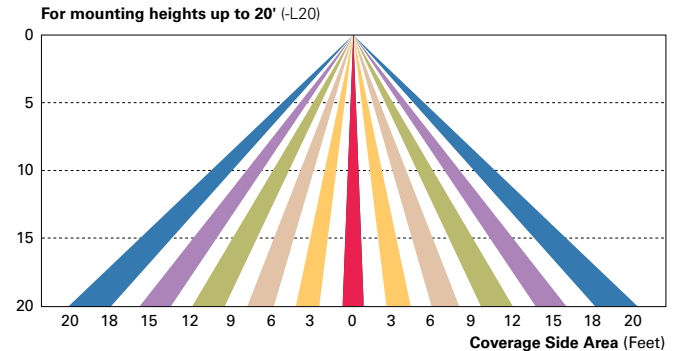
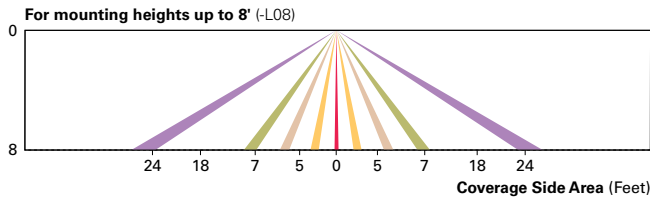
### Lumen Multiplier

Ambient Temperature	Multiplier
0°C	1.03
10C	1.02
25°C	1.00
40°C	0.98
50°C	0.97

## Control Options

**0-10V (D)** 0-10V dimming comes standard on all TopTier configurations for use with integrated or external lighting controls.

**Dimming Occupancy Sensor (MS/DIM)** These sensors are factory installed in the luminaire, dimming to 50% after five minutes of no motion detected. When motion is detected, the luminaire output is 100%. Includes an integral photocell that can be programmed for “dusk-to-dawn” operation. The FSIR-100 programming tool can be utilized to adjust dimming level, time delay, sensitivity and other parameters. Two lens options provide optimal coverage patterns up to 20’ mounting height. Sensor offered in white finish as standard.



### Dimming Occupancy Sensor (SPB)

These passive infrared (PIR) sensors are factory installed in the luminaire housing. When the SPB sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when no motion is detected. After a period of time, the luminaire turns off, and when motion is detected, the luminaire returns to full light output. The SPB sensor default parameters are listed in the table below, and can be configured utilizing the Sensor Configuration mobile application for iOS and Android devices. The SPB/X is configured to control only the specified number of light squares. An integral photocontrol can be activated with the app for “dusk-to-dawn” control or daylight harvesting - the factory default is off. Three sensor lenses are available to optimize the coverage pattern for mounting heights from 8’-40’. Sensor offered in white finish as standard.