McGraw-Edison

DESCRIPTION

The TopTier™ area and site luminaire is an innovative solution that delivers an unparalleled combination of performance and visual comfort. The patented WaveStream™ optical technology blocks the line of sight from the LED light sources to the observer, while extracting the maximum amount of light on task. This approach results in a high level of uniformity and vertical footcandles that enhances safety in the application environment. The TopTier luminaire is UL/cUL listed for wet locations, IP66 and 3G vibration rated.

SPECIFICATION FEATURES

Construction
One-piece, low copper die-cast aluminum upper housing with integrated mounting arm provides a clean and symmetric appearance. Formed aluminum top is sloped to prevent bird nesting. Metal electrical tray allows easy access for field servicing. IP66 rated against the ingress of dust and water.

Optics
Unique optical distributions are accomplished using various combinations of reflective backing plates and WaveStream optical technology. The optical Waveguide is manufactured using precision injection molded acrylic. The optics contain features that form a repeatable and redundant pattern to direct light in a precisely prescribed distribution. For additional glare control and visual comfort with the Wide distribution, specify the SG option which adds a Solite® glass lens that works in combination with the Waveguide lens and reflective backing plate to reduce high angle lumens. Offered standard in 4000K (+/- 275K) CCT, optional 3000K, 5000K and 6000K. Minimum 70 CRI.

Electrical
LED driver(s) are mounted to metal electrical tray for optimal thermal performance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming driver(s). See control options page for additional details. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. Greater than 90% lumen maintenance expected at 60,000 hours based off LM-80 test data and TM-21. Suitable for ambient temperature applications from -40°C (-40°F) to 40°C (104°F). For 50°C (122°F) applications, specify the HA high ambient option.

Mounting
Removal of the access plate on the mounting arm enables wiring of the fixture without having to access the driver compartment. The integrated pole mount arm is bolted directly to the pole with no assembly using an "N" drilling pattern. A knock-out on the mounting arm enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint with 2.5 mil nominal thickness for superior protection against fade and wear. Available colors include white, black, bronze, grey, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty
Five-year warranty.

TT TOPTIER SITE LED

Solid State LED

AREA/SITE LUMINAIRE

powered by **fifthlight** technology

CERTIFICATION DATA
UL/cUL Wet Location Listed
3G Vibration Rated
LM79 / LM80 Compliant
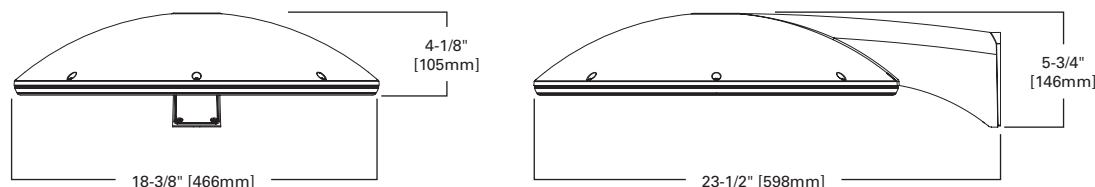IP66 Rated
ISO 9001

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

SHIPPING DATA
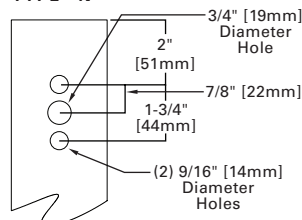**Approximate Net Weight:**
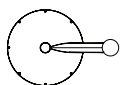26 lbs. (11.6 kgs.)

DIMENSIONS

POLE MOUNT

4-1/8" [105mm]

18-3/8" [466mm]

5-3/4" [146mm]

23-1/2" [598mm]

DRILLING PATTERN

TYPE "N"

3/4" [19mm] Diameter Hole
2" [51mm]
7/8" [22mm]
1-3/4" [44mm]
(2) 9/16" [14mm] Diameter Holes

DIMENSION DATA

Width	Length (with arm)	Weight (lbs.)	EPA (sq. ft.)
18-3/8"	23-1/2"	20.5	0.66

E·A·T·N
Powering Business Worldwide
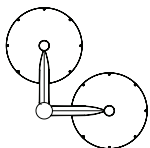
MOUNTING CONFIGURATIONS AND EPAS
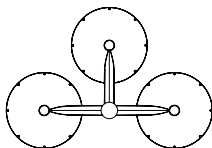
Arm Mount Single
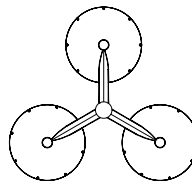EPA 0.66

Arm Mount 2 @ 180°
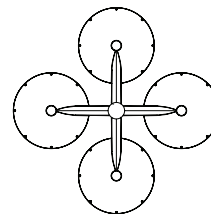EPA 1.32
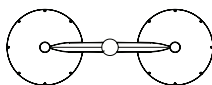
Arm Mount 2 @ 90°
EPA 0.95

Arm Mount 3 @ 90°
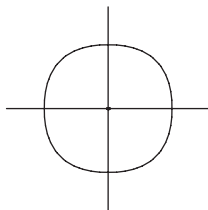EPA 1.36

Arm Mount 4 @ 90°
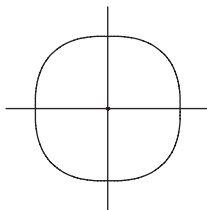EPA 1.03

Arm Mount 4 @ 90°
EPA 1.36

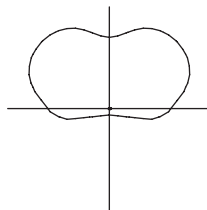## OPTICAL DISTRIBUTIONS

5CQ
(Type 5 Concentrated)
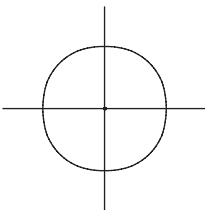
5MQ
(Type 5 Medium)

5WQ
(Type 5 Wide)

T4
(Type 4)

RW
(Rectangular Wide)
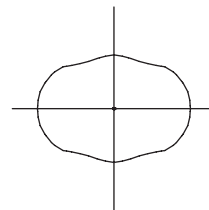
LUMEN MAINTENANCE

Ambient Temperature	Lumen Maintenance				
	25,000 Hours	**50,000 Hours**	**60,000 Hours TM-21 Rating**	**100,000 Hours**	**Theoretical L70 (Hours) Per TM-21 Data**
C1 Lumen Package					
25°C	> 96%	> 95%	> 95%	> 93%	> 500,000
40°C	> 96%	> 94%	> 94%	> 93%	> 500,000
50°C	> 95%	> 94%	> 93%	> 93%	> 400,000
C2 Lumen Package					
25°C	> 96%	> 95%	> 95%	> 93%	> 500,000
40°C	> 95%	> 94%	> 93%	> 91%	> 500,000
50°C	> 95%	> 93%	> 92%	> 90%	> 400,000
C3 Lumen Package					
25°C	> 96%	> 93%	> 93%	> 89%	> 300,000
40°C	> 95%	> 91%	> 90%	> 85%	> 240,000
50°C	> 95%	> 90%	> 89%	> 83%	> 200,000
C4 Lumen Package					
25°C	> 96%	> 95%	> 95%	> 93%	> 500,000
40°C	> 95%	> 92%	> 92%	> 88%	> 300,000
50°C	> 94%	> 91%	> 90%	> 85%	> 250,000
C5 Lumen Package					
25°C	> 96%	> 93%	> 92%	> 88%	> 300,000
40°C	> 94%	> 90%	> 89%	> 83%	> 200,000
C6 Lumen Package					
25°C	> 95%	> 92%	> 90%	> 86%	> 250,000
40°C	> 95%	> 92%	> 91%	> 86%	> 250,000

FAT•N
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POWER AND LUMENS

Lumen Package [1]			C1	C2	C3	C4	C5	C6
Power (Wattage)			28	34	45	58	77	108
Current @ 120V (A)			0.26	0.31	0.41	0.52	0.69	0.95
Current @ 277V (A)			0.13	0.14	0.19	0.24	0.30	0.41
3000K CCT	5CQ Concentrated	Lumens	3,293	3,997	5,256	5,486	7,107	9,084
		Lumens per Watt	118	118	117	95	92	84
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1
	5MQ Medium	Lumens	3,357	4,074	5,357	5,591	7,243	9,259
		Lumens per Watt	120	120	119	96	94	86
		BUG Rating	B2-U0-G1	B2-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2
	5WQ Wide	Lumens	3,101	3,764	4,949	5,165	6,691	8,554
		Lumens per Watt	111	111	110	89	87	79
		BUG Rating	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3
	RW Rectangular Wide	Lumens	2,726	3,308	4,350	4,540	5,882	7,519
		Lumens per Watt	97	97	97	78	76	70
		BUG Rating	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3
	T4 / Type 4 [2]	Lumens	2,440	2,938	4,152	--	--	--
		Lumens per Watt	73	71	62	--	--	--
		BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	--	--	--
4000K CCT	5CQ Concentrated	Lumens	3,848	4,670	6,141	7,273	9,423	12,046
		Lumens per Watt	137	137	136	126	123	111
		BUG Rating	B2-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2
	5MQ Medium	Lumens	3,922	4,760	6,259	7,413	9,604	12,277
		Lumens per Watt	140	140	139	128	125	114
		BUG Rating	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3
	5WQ Wide	Lumens	3,623	4,397	5,782	6,848	8,872	11,342
		Lumens per Watt	129	129	128	118	115	105
		BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B4-U0-G3
	RW Rectangular Wide	Lumens	3,185	3,865	5,082	6,019	7,799	9,969
		Lumens per Watt	114	114	113	104	101	92
		BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3
	T4 / Type 4 [2]	Lumens	3,235	3,895	5,506	--	--	--
		Lumens per Watt	98	95	83	--	--	--
		BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	--	--	--
5000K CCT	5CQ Concentrated	Lumens	3,645	4,424	5,817	7,204	9,334	11,932
		Lumens per Watt	130	130	130	124	121	110
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2
	5MQ Medium	Lumens	3,716	4,509	5,929	7,343	9,513	12,161
		Lumens per Watt	133	133	132	127	124	113
		BUG Rating	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3
	5WQ Wide	Lumens	3,433	4,166	5,478	6,783	8,788	11,235
		Lumens per Watt	123	123	122	117	114	104
		BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3
	RW Rectangular Wide	Lumens	3,017	3,662	4,815	5,962	7,725	9,875
		Lumens per Watt	108	108	107	103	100	91
		BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3
	T4 / Type 4 [2]	Lumens	3,205	3,858	5,454	--	--	--
		Lumens per Watt	96	93	82	--	--	--
		BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	--	--	--

NOTES:
1. Nominal data with 70 CRI for 4000K and 5000K, 80 CRI for 3000K. For configurations that include the glass or sensor options, refer to the specific IES files for BUG rating and lumen output data.
2. Wattage with T4 optic is 33W for C1, 41W for C2, and 67W for C3.

CONTROL OPTIONS

0-10V
This fixture is offered standard with 0-10V dimming driver(s). External 0-10V dimming wire leads are provided for use with a lighting control panel or other control methods except when PER7, 5LTD, MS/DIM or LWR is specified.
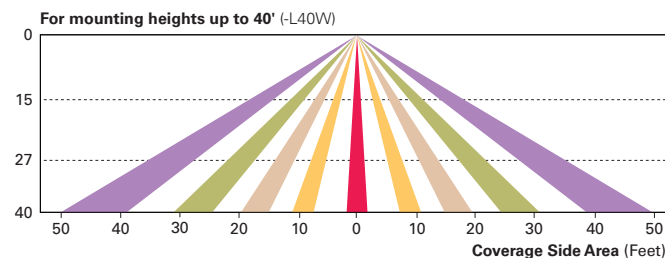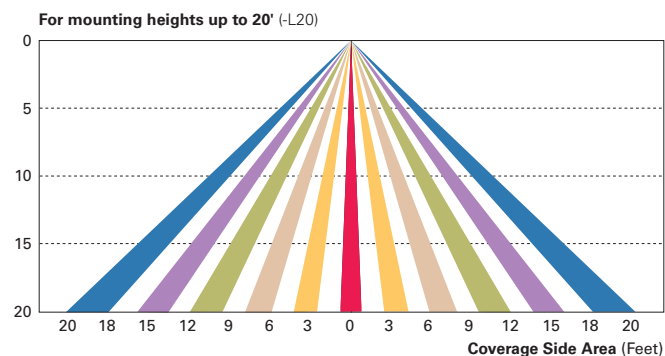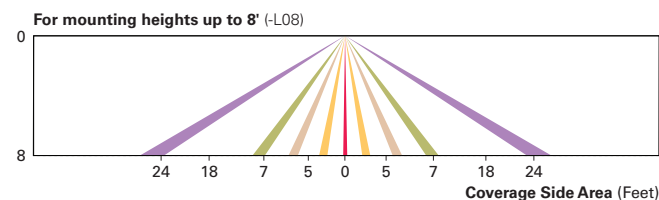
Photocontrol (P, R and PER7)
Optional button-type photocontrol (P) and photocontrol receptacles (R and PER7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

Dimming Occupancy Sensor (MS/DIM-LXX)
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes.

These occupancy sensors include an integral photocell that can be activated with the FSIR-100 accessory for "dusk-to-dawn" control or daylight harvesting. The factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.
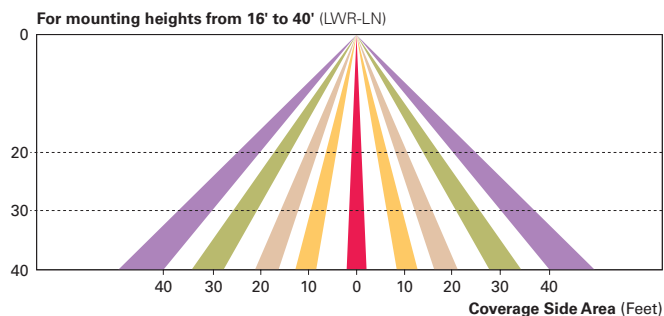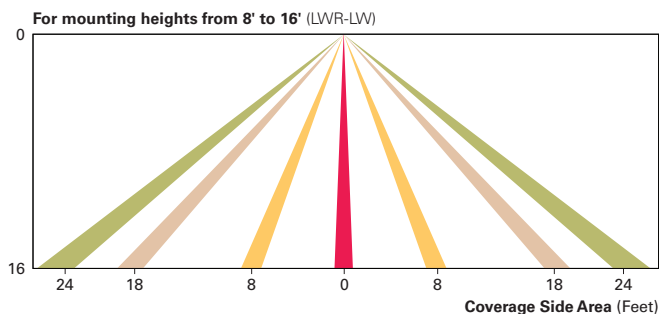
A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 8'-40'.

For mounting heights up to 8' (-L08)

Coverage Side Area (Feet)

For mounting heights up to 20' (-L20)

Coverage Side Area (Feet)

For mounting heights up to 40' (-L40W)

Coverage Side Area (Feet)

LumaWatt Pro Wireless Control and Monitoring System (LWR-LW and LWR-LN)
The LumaWatt Pro system is a peer-to-peer wireless network of luminaire-integral sensors for any sized project. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication. The end-user can securely create and manage sensor profiles with browser-based management software. The software will automatically broadcast to the sensors via wireless gateways for zone-based and individual luminaire control. The LumaWatt Pro software provides smart building solutions by utilizing the sensor to provide easy-to-use dashboard and analytic capabilities such as improved energy savings, traffic flow analysis, building management software integration and more.

For additional details, refer to the LumaWatt Pro product guides.

For mounting heights from 8' to 16' (LWR-LW)

Coverage Side Area (Feet)

For mounting heights from 16' to 40' (LWR-LN)

Coverage Side Area (Feet)

ORDERING INFORMATION

Sample Number: TT-C2-LED-E1-5WQ-PM-GM

Product Family	Lumen Package	Lamp Type	Voltage	Distribution	Mounting	Color
TT=TopTier [1]	**C1**=Nominal 3,500 Lumens **C2**=Nominal 4,500 Lumens **C3**=Nominal 6,000 Lumens **C4**=Nominal 7,500 Lumens **C5**=Nominal 9,500 Lumens **C6**=Nominal 12,000 Lumens	**LED**=Solid State Light Emitting Diodes	**E1**=Electrical (120-277V) **347**=347V **480**=480V [2]	**5CQ**=Type 5, Concentrated **5MQ**=Type 5, Medium **5WQ**=Type 5, Wide **RW**=Rectangular Wide **T4**= Type 4 [3]	**PM**=Pole Mount	**[BLANK]**=White **AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic

Options (Add as Suffix)	Accessories (Order Separately)
8030=80 CRI / 3000K **7050**=70 CRI / 5000K **7060**=70 CRI / 6000K **P**=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) [4] **PER7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [4] **R**=NEMA Twistlock Photocontrol Receptacle [4] **HA**=50°C High Ambient [5] **CG**=Clear Glass [6] **SG**=Solite® Glass [7] **TR**=Tamper Resistant Hardware **X**=Driver Surge Protection Only **5LTD**=Fifth Light DALI Drivers [8] **MS/DIM-L08**=Dimming Occupancy Sensor (<9' Mounting) [9, 10] **MS/DIM-L20**=Dimming Occupancy Sensor (9' - 20' Mounting) [9, 10] **MS/DIM-L40W**=Dimming Occupancy Sensor (21' - 40' Mounting) [9, 10] **LWR-LW**=LumaWatt Pro Wireless Sensor, Wide Lens 8' - 16' Mounting Height [10, 11] **LWR-LN**=LumaWatt Pro Wireless Sensor, Narrow Lens 16' - 40' Mounting Height [10, 11]	**FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [9] **TT/WG**=Wire Guard **OA/RA1016**=NEMA Photocontrol Multi-Tap - 105-285V **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=120V Photocontrol **MA1252**=10kV Surge Module Replacement **MA1036-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon **MA1037-XX**=2@180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1197-XX**=3@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1188-XX**=4@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1189-XX**=2@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1190-XX**=3@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1191-XX**=2@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1038-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1039-XX**=2@180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1192-XX**=3@120° Tenon Adapter for 3-1/2" O.D. Tenon **MA1193-XX**=4@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1194-XX**=2@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1195-XX**=3@90° Tenon Adapter for 3-1/2" O.D. Tenon

NOTES:
1. Product family has been submitted for qualification to utility rebate programs.
2. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
3. C1-C3 lumen packages only.
4. Not available with 5LTD, MS/DIM or LWR.
5. HA not available with C5 and C6 lumen packages or 5LTD option.
6. Not available with 5CQ.
7. Standard with 5CQ, option available with 5WQ and RW.
8. Replace E1 with specific voltage (120, 208, 240, 277V available). Not available with C6 lumen package, HA or sensor options. Multiply published IES file by .95 when used with the C5 lumen package.
9. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
10. Includes integral photocell.
11. LumaWatt Pro wireless sensors are factory installed only requiring network components in appropriate quantities. See www.eaton.com/lighting for LumaWatt Pro application information.