

# AREA & ROADWAY LIGHTING



## Luminaire

Heavy cast low copper aluminum assembly (A356 alloy, <0.2% copper). Housing attaches to pole via a one piece, extruded aluminum arm with centering guides for internal draw bolts. Housing/pole junction is gasketed. All exposed hardware is stainless steel. Internal protected hardware is electro-zinc plated.

## PLED™ Optics

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded optical acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard and specialized street, site, and area distributions. All distributions are Zero Uplight (U0), Full-Cutoff dark sky friendly. Panels are field replaceable and field rotatable in 90° increments.

## LED Emitters

High Power White LED's are driven between 350mA and 1050mA for a maximum output of 3 Watts nominal each. LED's are available in standard Neutral White (4000K), Cool White (5000K), or Warm White (2700K & 3000K). All Standard LED's have a minimum of 70 CRI. Consult Factory for other LED options. Lumen Maintenance of L94 at 60,000 hours (TM-21 calculated at 6x Test Time).

**True Amber LED's** TRA-True Amber LED's emit light in the amber spectral bandwidth centered on 585-590nm. True Amber has negligible blue light and is suitable for wildlife.

## LED Driver

Constant current electronic with a power factor of >0.90, THD less than 10% and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz. 0-10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field installation.

## Finish

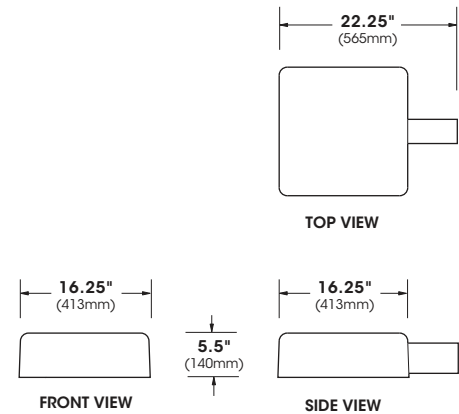
Polyester powder coat incorporates four step iron phosphate process to pretreat metal surface for maximum adhesion. Top coat is baked at 400°F for maximum hardness and exterior durability.

PROJECT NAME: \_\_\_\_\_

PROJECT TYPE: \_\_\_\_\_



**LUM PLED**

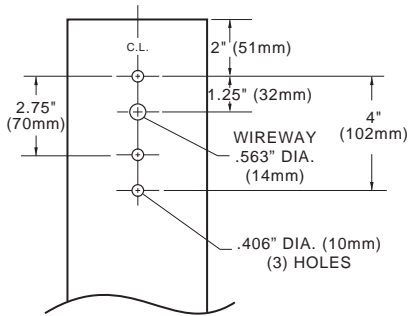


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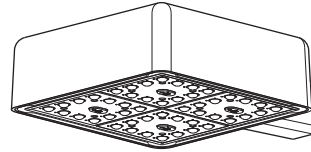
# LUM SERIES - LED

## SPECIFICATIONS

### POLE DRILLING TEMPLATE

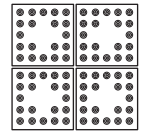


### EPA & WEIGHT

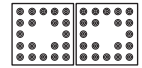


**LUM**  
 Max Weight = 35 lbs  
 Max EPA = 1.12  
 80 LED Max

### PLED™ MODULES



80 LED Module



40 LED Module

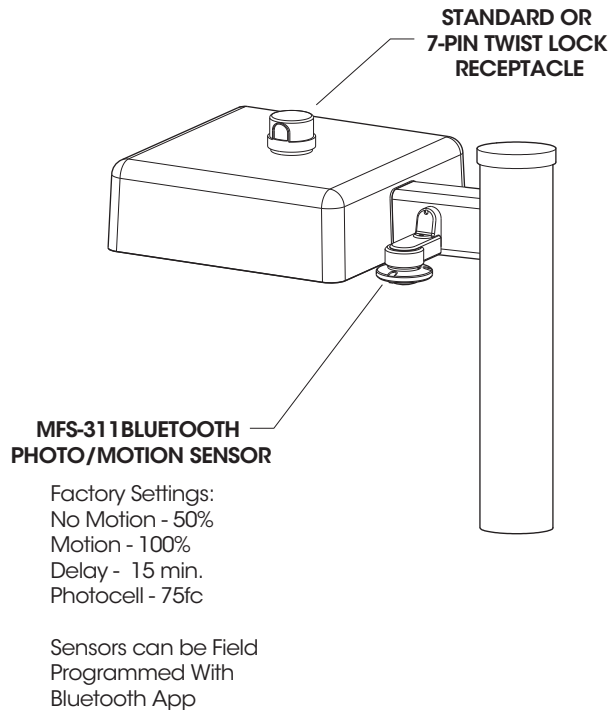
## ORDERING INFORMATION

Spec/Order Example: LUM/PLED-II-ML/80LED-700mA/40K/347/4-90/RAL-8019-S

Luminaire	Optics	LED Mode	Voltage	Mounting	Finish	Options
<b>Luminaire</b>	<b>Optics</b>	<b>LED</b>	<b>Voltage</b>	<b>Mounting</b>	<b>Finish</b>	<b>Options</b>
<input type="checkbox"/> LUM	<b>PLED™</b> Distribution Type <input type="checkbox"/> Type II <b>PLED-II</b> <input type="checkbox"/> Type II Front Row <b>PLED-II-FR</b> <input type="checkbox"/> Type III Median Illuminator <b>PLED-III-ML</b> <input type="checkbox"/> Type III Med. <b>PLED-III-M</b> <input type="checkbox"/> Type III Wide <b>PLED-III-W</b> <input type="checkbox"/> Type IV <b>PLED-IV</b> <input type="checkbox"/> Type IV <b>PLED-IV-FT</b> <input type="checkbox"/> Type V Narrow <b>PLED-VSQ-N</b> <input type="checkbox"/> Type V Med. <b>PLED-V-SQ-M</b> <input type="checkbox"/> Type V Wide <b>PLED-V-SQ-W</b>	# of LEDs <input type="checkbox"/> 80LED <input type="checkbox"/> 40LED Drive Current <input type="checkbox"/> 1050mA <sup>1</sup> <input type="checkbox"/> 875mA <sup>1</sup> <input type="checkbox"/> 700mA <input type="checkbox"/> 525mA <input type="checkbox"/> 350mA Color Temp - CCT <input type="checkbox"/> 27K (2700K) <input type="checkbox"/> 30K (3000K) <input type="checkbox"/> 40K (4000K) <input type="checkbox"/> 50K (5000K) <input type="checkbox"/> TRA <sup>2</sup> True Amber Consult Factory for Other LED Color, CCT, & CRI Options NOTES: 1 - 1050mA and 875mA for use with 40LED only 2 - TRA available in 350mA and 525mA Drive Currents only Consult Factory for Other Drive Currents	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	<b>Arm Mount</b> <input type="checkbox"/> 1 <input type="checkbox"/> 2-180 <input type="checkbox"/> 2-90 <input type="checkbox"/> 3-90 <input type="checkbox"/> 3-120 <input type="checkbox"/> 4-90 <input type="checkbox"/> Universal Pole Adaptor <b>UPA</b> <b>Wall Mount</b> <input type="checkbox"/> WM	<b>Standard Textured Finish</b> <input type="checkbox"/> Black <b>RAL-9005-T</b> <input type="checkbox"/> White <b>RAL-9003-T</b> <input type="checkbox"/> Grey <b>RAL-7004-T</b> <input type="checkbox"/> Dark Bronze <b>RAL-8019-T</b> <input type="checkbox"/> Green <b>RAL-6005-T</b> For smooth finish replace suffix "T" with suffix "S" (Example: RAL-9500-S) Consult factor for custom colors	<input type="checkbox"/> Internal House Side Shield inc. LED Count (Example: HS-PLED/48) <b>HS-PLED</b> <input type="checkbox"/> External Glare Shield 4 Sided <b>EGS4</b> <input type="checkbox"/> External Glare Shield 3 Sided Rear Wedge <b>EGS3W</b> <input type="checkbox"/> Twist Lock Receptacle Only <b>TPR</b> <input type="checkbox"/> 7-Pin Twist Lock Receptacle Only <b>TPR7</b> <input type="checkbox"/> High-Low Dimming for Switch by Others/Select Levels 50/100 or 25/100 (Example: HLSW/25) <b>HLSW</b> <input type="checkbox"/> Photo Cell + Voltage (Example: PC120V) <b>PC+V</b> <input type="checkbox"/> Single Fuse (120V, 277V) <b>SF</b> <input type="checkbox"/> Double Fuse (208V, 240V) <b>DF</b> <input type="checkbox"/> Blue-Tooth Programmable Photo/Motion Sensor (Factory - Motion 50/100; Photo 75fc) <b>MS-F311</b>

# LUM SERIES - LED

## OPTIONS



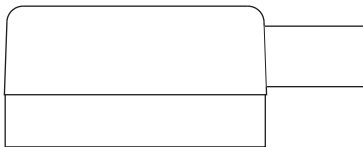
### High Low Dimming For Switches (HLSW)

The HLSW is a Small Electronic Switch which Provides High Low Dimming Control Through the LED Driver's 0-10V Control. Switching is Done by Adding a Secondary AC Switched Hot Trigger Line to the HLSW in Addition to the Normal AC Power Line. When the Secondary Trigger Line is Powered, the Fixture will go to 100% Dimming. With no Power to the Trigger, the Fixture will operate at 50% or 25% Dimming. Switches for the Trigger Line can be a Normal AC Switch/Breaker or Timed Switch/Breaker.

### Wireless and Other Fixture Controls

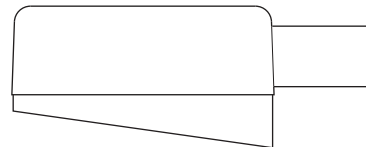
Contact Factory for Wireless and Other Fixture Controls and Recommendations. Most Controls Can be Integrated and Factory Installed.

### EXTERNAL GLARE SHIELDS



#### EGS4 - 4 Sided Shield

Minimum Cutoff = 12°  
Average Cutoff = 23°



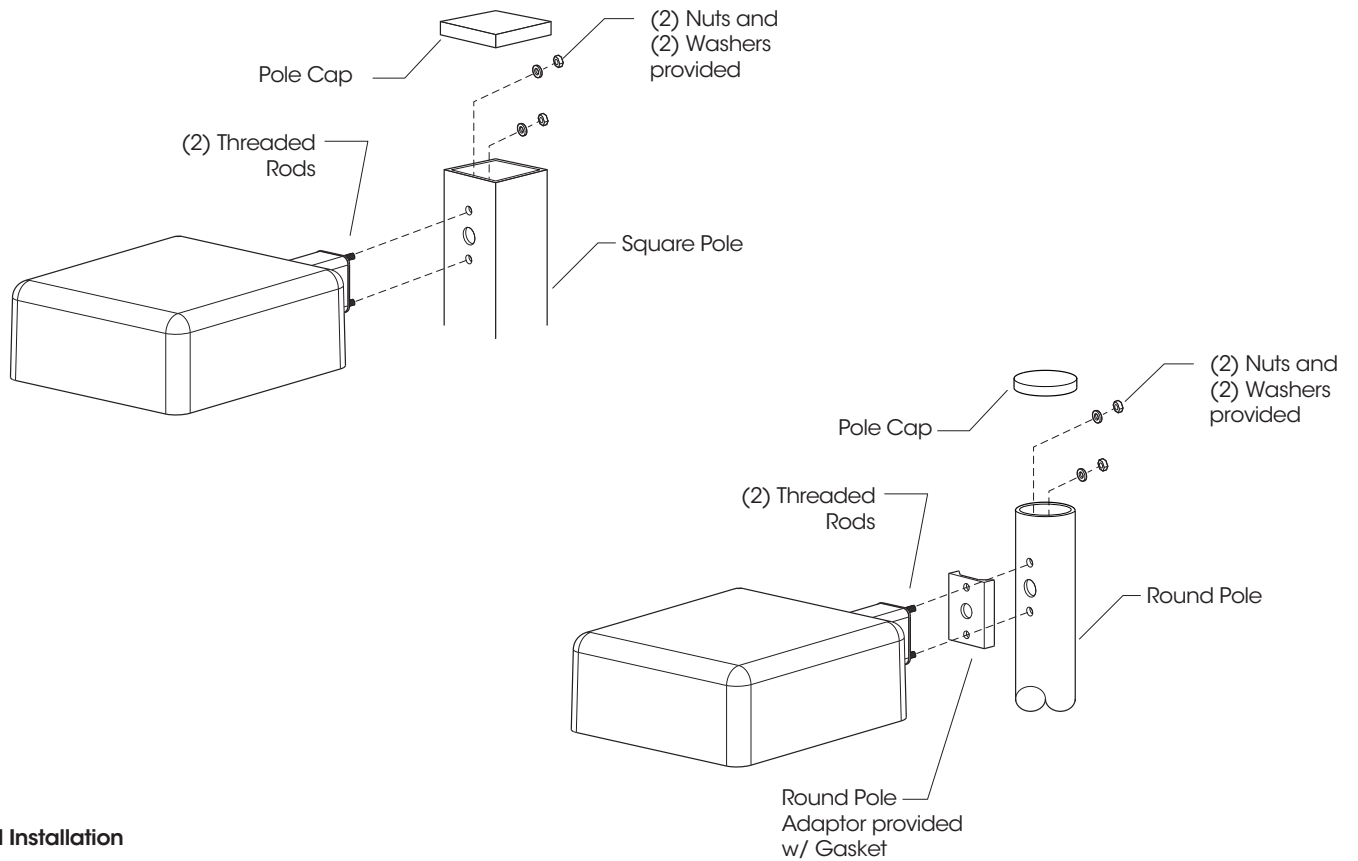
#### EGS3W - 3 Sided Shield

Minimum Rear Cutoff = 12°  
Average Rear Cutoff = 23°  
Minimum Side Cutoff = 4°  
Average Side Cutoff = 16°

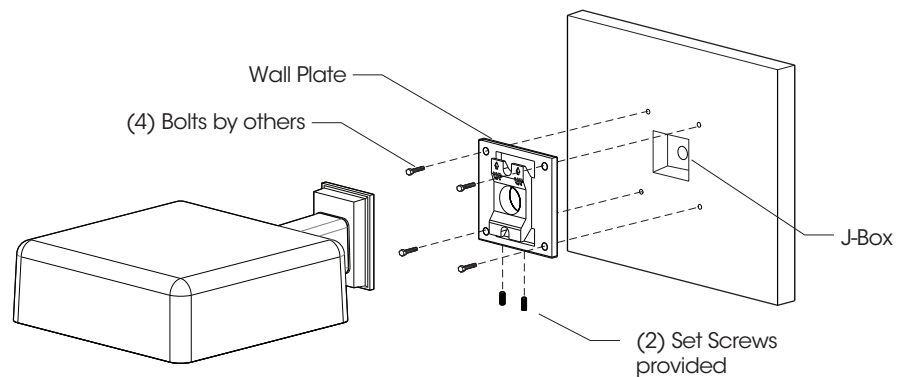
Glare Shields are rotatable. Consult factory for custom applications.

# LUM SERIES - LED

## INSTALLATION DETAIL



LUM Installation



LUM-WM Installation

# LUM SERIES - PLED

## PHOTOMETRIC DATA GUIDE - LM80 LUMENS MAINTENANCE

LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000 (10x Test Time Calculated)	L94	0.94x
100,000 (Theoretical Calculated)	L92	0.92x
150,000 (Theoretical Calculated)	L89	0.89x

Lumen Depreciation Calculations Done in Accordance With IESNA TM-21 & LM-80 (25°C Ambient)  
TM-21 6x Test Time Dictates that L94 > 60,000 Hour

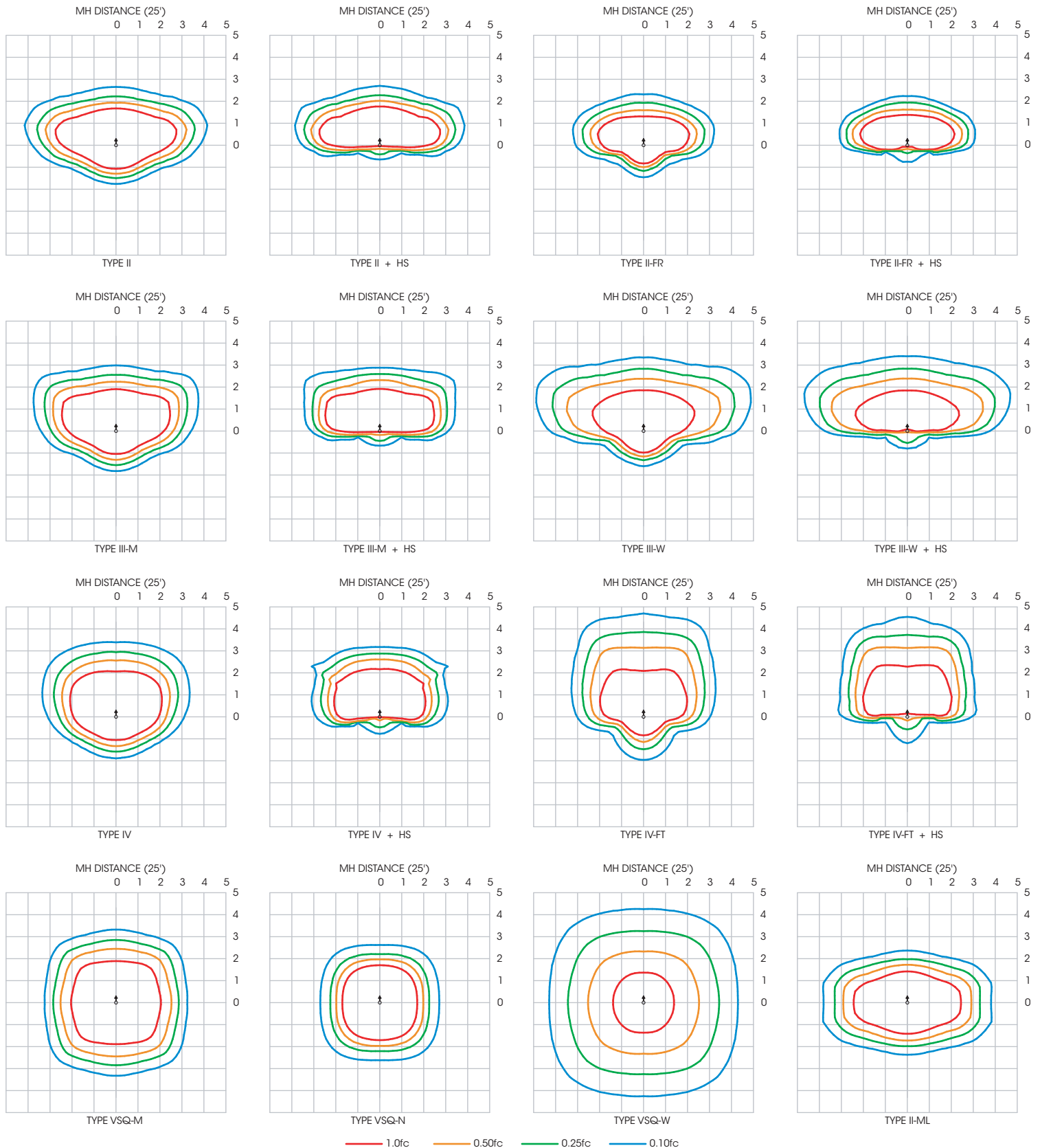
## ELECTRICAL DATA GUIDE - AMPERAGE CHARTS

# of LEDs	mA	System Watts	120V	208V	277V	347V	480V
40	350	43	0.36	0.21	0.15	0.12	0.09
40	525	65	0.54	0.31	0.23	0.19	0.13
40	700	87	0.72	0.42	0.31	0.25	0.18
40	875	108	0.90	0.52	0.39	0.31	0.23
40	1050	128	1.07	0.62	0.46	0.37	0.27
80	350	85	0.71	0.41	0.31	0.25	0.18
80	525	129	1.08	0.62	0.47	0.37	0.27
80	700	174	1.45	0.83	0.63	0.50	0.36

# LUM SERIES - PLED

## PHOTOMETRIC DATA GUIDE - ISOFOOTCANDLE PLOTS

### LUM-PLED-80LED-700mA-40K - 25' Pole Height



IES File downloads for this product can be found at [www.usaltg.com/downloads/asr.html](http://www.usaltg.com/downloads/asr.html)



# LUM SERIES - PLED

## PHOTOMETRIC DATA GUIDE - LUMEN TABLES

LUM-PLED																							
LED Count	Drive Current (mA)	System Watts	Dist'n Type	27K (2700K - 70CRI)			30K (3000K - 70CRI)			40K (4000K - 70CRI)			50K (5000K - 70CRI)			System Watts	TRA (590nm)						
				LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING		LUMENS	LPW	BUG RATING				
80	350	85.4	II	10600	124	B2-U0-G2	11443	134	B2-U0-G2	12046	141	B2-U0-G2	12648	148	B2-U0-G2	67.0	4207	63	B1-U0-G1				
			II-FR	10671	125	B2-U0-G1	11520	135	B3-U0-G1	12126	142	B3-U0-G1	12733	149	B3-U0-G1		4234	63	B1-U0-G1				
			II-ML	10600	124	B3-U0-G3	11444	134	B3-U0-G3	12046	141	B3-U0-G3	12648	148	B3-U0-G3		4207	63	B2-U0-G2				
			III-M	10785	126	B2-U0-G2	11643	136	B2-U0-G2	12256	144	B2-U0-G2	12869	151	B2-U0-G2		4280	64	B1-U0-G1				
			III-W	10014	117	B2-U0-G3	10811	127	B2-U0-G3	11380	133	B2-U0-G3	11949	140	B2-U0-G3		3974	59	B1-U0-G2				
			IV	10705	125	B2-U0-G2	11556	135	B2-U0-G2	12164	142	B2-U0-G2	12772	150	B2-U0-G2		4247	63	B1-U0-G1				
			IV-FT	9751	114	B2-U0-G3	10527	123	B2-U0-G3	11081	130	B2-U0-G3	11635	136	B2-U0-G3		3870	58	B1-U0-G1				
			VSQ-N	11188	131	B3-U0-G1	12078	141	B3-U0-G1	12714	149	B3-U0-G1	13350	156	B3-U0-G1		4440	66	B2-U0-G1				
			VSQ-M	10971	128	B4-U0-G2	11844	139	B4-U0-G2	12467	146	B4-U0-G2	13091	153	B4-U0-G2		4353	65	B3-U0-G1				
			VSQ-W	10709	125	B4-U0-G3	11561	135	B4-U0-G3	12169	142	B4-U0-G3	12778	150	B4-U0-G3		4249	63	B3-U0-G2				
			II-HS	7752	91	B1-U0-G2	8369	98	B1-U0-G2	8809	103	B1-U0-G2	9250	108	B1-U0-G2		3076	46	B0-U0-G1				
			II-FR-HS	7886	92	B1-U0-G1	8513	100	B1-U0-G1	8961	105	B1-U0-G1	9409	110	B1-U0-G1		3129	47	B0-U0-G0				
			III-M-HS	7843	92	B1-U0-G2	8467	99	B1-U0-G2	8913	104	B1-U0-G2	9358	110	B1-U0-G2		3113	46	B0-U0-G1				
			III-W-HS	7677	90	B0-U0-G2	8288	97	B1-U0-G2	8724	102	B1-U0-G2	9160	107	B1-U0-G2		3046	45	B0-U0-G1				
			IV-HS	8101	95	B1-U0-G2	8745	102	B1-U0-G2	9206	108	B1-U0-G2	9666	113	B1-U0-G2		3215	48	B0-U0-G1				
			IV-FT-HS	7656	90	B1-U0-G3	8265	97	B1-U0-G3	8700	102	B1-U0-G3	9135	107	B1-U0-G3		3038	45	B0-U0-G1				
			80	525	129.4	II	15265	118	B3-U0-G2	16479	127	B3-U0-G3	17347	134	B3-U0-G3		18214	141	B3-U0-G3	101.0	4936	49	B1-U0-G1
						II-FR	15367	119	B3-U0-G2	16589	128	B3-U0-G2	17462	135	B3-U0-G2		18335	142	B3-U0-G2		4968	49	B1-U0-G1
II-ML	15265	118				B4-U0-G4	16480	127	B4-U0-G4	17347	134	B4-U0-G4	18214	141	B4-U0-G4	4936	49	B2-U0-G2					
III-M	15532	120				B3-U0-G2	16767	130	B3-U0-G3	17649	136	B3-U0-G3	18532	143	B3-U0-G3	5022	50	B1-U0-G1					
III-W	14421	111				B2-U0-G3	15568	120	B2-U0-G3	16387	127	B3-U0-G3	17206	133	B3-U0-G3	4663	46	B1-U0-G2					
IV	15414	119				B3-U0-G2	16640	129	B3-U0-G3	17516	135	B3-U0-G3	18392	142	B3-U0-G3	4984	49	B1-U0-G1					
IV-FT	14042	109				B2-U0-G3	15159	117	B3-U0-G3	15957	123	B3-U0-G4	16754	129	B3-U0-G4	4541	45	B1-U0-G2					
VSQ-N	16112	125				B4-U0-G1	17394	134	B4-U0-G2	18309	141	B4-U0-G2	19224	149	B4-U0-G2	5210	52	B2-U0-G1					
VSQ-M	15799	122				B4-U0-G2	17055	132	B4-U0-G2	17952	139	B4-U0-G2	18850	146	B4-U0-G2	5108	51	B3-U0-G1					
VSQ-W	15422	119				B4-U0-G3	16648	129	B4-U0-G3	17525	135	B5-U0-G3	18401	142	B5-U0-G3	4986	49	B3-U0-G2					
II-HS	11164	86				B1-U0-G2	12052	93	B1-U0-G2	12687	98	B1-U0-G2	13321	103	B1-U0-G3	3610	36	B0-U0-G1					
II-FR-HS	11356	88				B1-U0-G2	12259	95	B1-U0-G2	12905	100	B1-U0-G2	13550	105	B1-U0-G2	3672	36	B0-U0-G1					
III-M-HS	11295	87				B1-U0-G2	12193	94	B1-U0-G3	12835	99	B1-U0-G3	13477	104	B1-U0-G3	3652	36	B0-U0-G1					
III-W-HS	11054	85				B1-U0-G3	11934	92	B1-U0-G3	12562	97	B1-U0-G3	13190	102	B1-U0-G3	3575	35	B0-U0-G2					
IV-HS	11666	90				B1-U0-G2	12594	97	B1-U0-G2	13257	102	B1-U0-G3	13920	108	B1-U0-G3	3772	37	B0-U0-G1					
IV-FT-HS	11025	85				B1-U0-G3	11902	92	B1-U0-G3	12529	97	B1-U0-G3	13155	102	B1-U0-G3	3565	35	B0-U0-G2					
80	700	173.6				II	19359	112	B3-U0-G3	20898	120	B3-U0-G3	21998	127	B3-U0-G3	23098	133	B3-U0-G3	N/A		N/A		
						II-FR	19487	112	B3-U0-G2	21038	121	B3-U0-G2	22145	128	B3-U0-G2	23252	134	B3-U0-G2					
			II-ML	19359	112	B4-U0-G4	20899	120	B4-U0-G4	21999	127	B4-U0-G4	23099	133	B4-U0-G4								
			III-M	19697	113	B3-U0-G3	21264	122	B3-U0-G3	22383	129	B3-U0-G3	23502	135	B3-U0-G3								
			III-W	18289	105	B3-U0-G3	19743	114	B3-U0-G4	20782	120	B3-U0-G4	21821	126	B3-U0-G4								
			IV	19549	113	B3-U0-G3	21104	122	B3-U0-G3	22215	128	B3-U0-G3	23325	134	B3-U0-G3								
			IV-FT	17808	103	B3-U0-G4	19224	111	B3-U0-G4	20236	117	B3-U0-G4	21248	122	B3-U0-G4								
			VSQ-N	20432	118	B4-U0-G2	22058	127	B4-U0-G2	23219	134	B4-U0-G2	24380	140	B4-U0-G2								
			VSQ-M	20035	115	B4-U0-G2	21629	125	B5-U0-G3	22767	131	B5-U0-G3	23906	138	B5-U0-G3								
			VSQ-W	19558	113	B5-U0-G3	21113	122	B5-U0-G4	22225	128	B5-U0-G4	23336	134	B5-U0-G4								
			II-HS	14158	82	B1-U0-G3	15284	88	B1-U0-G3	16088	93	B1-U0-G3	16893	97	B1-U0-G3								
			II-FR-HS	14401	83	B1-U0-G2	15547	90	B1-U0-G2	16365	94	B1-U0-G2	17183	99	B1-U0-G2								
			III-M-HS	14323	83	B1-U0-G3	15463	89	B1-U0-G3	16276	94	B1-U0-G3	17090	98	B1-U0-G3								
			III-W-HS	14020	81	B1-U0-G3	15135	87	B1-U0-G4	15932	92	B1-U0-G4	16728	96	B1-U0-G4								
			IV-HS	14795	85	B1-U0-G3	15972	92	B1-U0-G3	16812	97	B1-U0-G3	17653	102	B1-U0-G3								
			IV-FT-HS	13982	81	B1-U0-G4	15094	87	B1-U0-G4	15889	92	B1-U0-G4	16683	96	B1-U0-G4								

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