

Project		Catalog #		Type	
Prepared by		Notes		Date	



Invue

MSA MESA

Solar-Enabled Decorative Area Luminaire

Product Features



Interactive Menu

- Order Information [page 2](#)
- Product Specifications [page 2](#)
- Optical Distributions [page 3](#)
- Energy & Performance data [page 4](#)

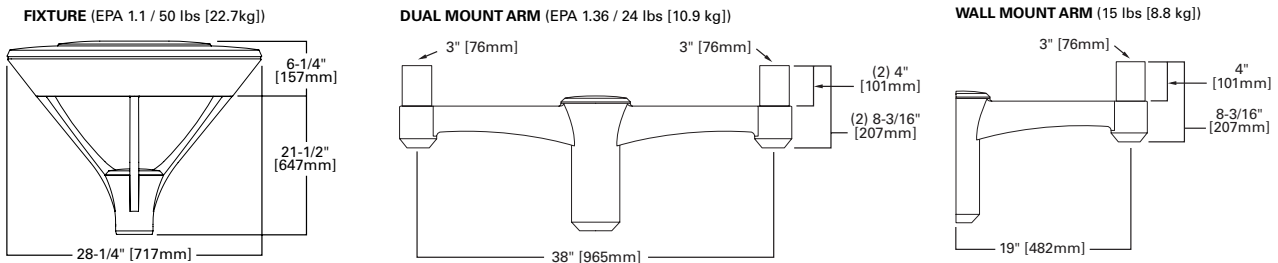
Product Certifications



Quick Facts

- Die-cast aluminum housing and door
- Lumens packages ranging from 3,400 - 14,500 lumens
- Choice of 13 high-efficiency, patented AccuLED Optics™
- Base casting slip fits over a standard 3" O.D. tenon
- Wall, single and dual-mount configurations available
- LED fixture features a five-year warranty

Dimensional and Mounting Details



NOTES:
 1. IP66 Optic enclosure rated.
 2. IDA Certified for 3000K CCT and warmer only.

Ordering Information

SAMPLE NUMBER: **MSA-SA2B-740-24VDC-T3-GM**

Product Family ¹	Light Engine		Color Temperature	DC Solar Input Voltage	Distribution	Finish ²
MSA =Mesa BAA-MSA =Mesa Buy American Act ^{7,8} TAA-MSA =Mesa Trade Agreement Act Compliant ^{7,8}	Configuration SA1 =1 Square SA2 =2 Squares	Drive Current A =615mA B =800mA C =1050mA(1A) D =1200mA(1.2A)	722 =70CRI, 2200K 727 =70CRI, 2700K 730 =70CRI, 3000K 735 =70CRI, 3500K 740 =70CRI, 4000K 750 =70CRI, 5000K 760 =70CRI, 6000K 827 =80CRI, 2700K 830 =80CRI, 3000K 835 =80CRI, 3500K 840 =80CRI, 4000K	24VDC =24V DC	T2 =Type II T3 =Type III T4FT =Type IV Forward Throw T4W =Type IV Wide SL2 =Type II w/Spill Control SL3 =Type III w/Spill Control SL4 =Type IV w/Spill Control SLL =90 Spill Light Eliminator Left SLR =90 Spill Light Eliminator Right RW =Rectangular Wide Type I 5NQ =Type V Square Narrow 5MQ =Type V Square Medium 5WQ =Type V Square Wide	AP =Grey BK =Black BZ =Bronze DP =Dark Platinum GM =Graphite Metallic WH =White RALxxxx =RAL custom color
Options (Add as Suffix)				Accessories (Order Separately) ⁷		
CC =Coastal Construction ³ HSS =House Side Shield ⁴ GRSBK =Factory Installed Glare Shield, BK ⁹ GRSWH =Factory Installed Glare Shield, WH ⁹ G3 =3G Vibration Rated IH =Internal Dome Hinge ⁷ LCF =Light Square Trim Plate Painted to Match Housing				SA6028-XX =Dual Mount Arm ¹ SA6029-XX =Wall Mount Arm ¹ LS/HSS =House Side Shield ^{4,6} LS/GRSBK-2PK =Glare Shield, Black ^{9,10} LS/GRSWH-2PK =Glare Shield, White ^{9,10}		
NOTES: 1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information. 2. Custom and RAL color matching available upon request. Consult your lighting representative at Cooper Lighting Solutions for more information. 3. Salt spray tested to 5,000hrs per ASTM B117. Scribe rating of 9 per ASTM D1654. 4. House side shield not for use with 5NQ, 5MQ, 5WQ, or RW distributions. The Light Square trim plate is painted black when the HSS option is selected. 5. Replace XX with paint color. 6. Must order one per light square when ordering as a field-installable accessory. 7. 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 DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. 8. Extended lead times may apply. 9. Not for use with T4FT, T4W or SL4 optics. 10. One required for each light square.						

Product Specifications

Construction

- Die-cast aluminum main housing and permanent mold spider mount base maintain a minimum Ø.125" wall thickness.
- Integral aluminum heat sink provides superior thermal -30°C to +40°C ambient
- Standard 1.5G vibration, 3G optional.
- Top mounted door assembly, heavy wall, diecast aluminum door maintains a nominal Ø.125 thickness
- Door includes a 4.5" stainless steel safety tether standard or an optional self-retaining interior hinge.
- Continuous silicone gasket provided to seal housing door assembly and optic tray
- Downlight lens is LED board integrated acrylic over optics, each individually sealed for IP66 rating.
- Four inset fasteners on underside of housing provide access to luminaire interior.

Optics

- Choice of thirteen patented, high efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing.
- AccuLED Optic technology creates consistent distributions with the scalability to meet customized application requirements
- Offered in multiple CCTs. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical

- LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life.
- Lightsquares feature an IP66 enclosure rating.
- DC drivers feature electronic greater than 0.9 power factor and less than 20% total harmonic distortion
- With three-position tunnel type compression terminal block marked for positive (+), negative (-), and ground wiring

Mounting

- Fitter assembly mounts over 3" O.D. Tenon via four concealed, steel set screws and jam-setscrews.

Finish

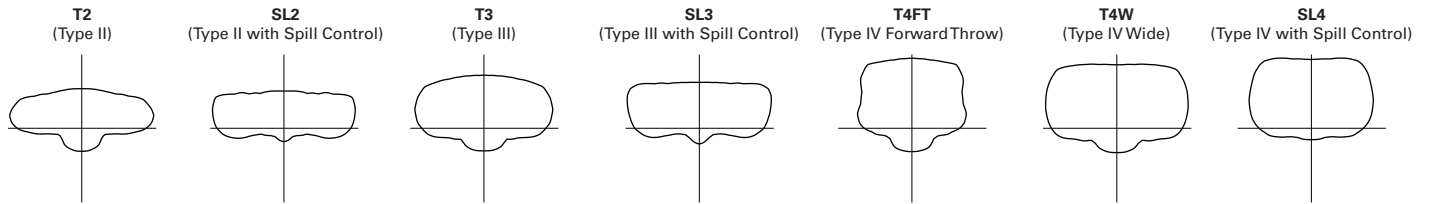
- Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.
- Lightsquares cover plates are standard white and may be specified to match finish of luminaire housing.
- Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.
- Available in Coastal Construction, salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.

Warranty

- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

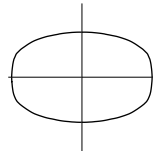
Optical Distributions

Asymmetric Area Distributions



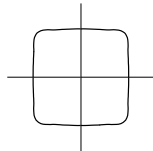
Asymmetric Roadway Distributions

RW (Rectangular Wide Type I)

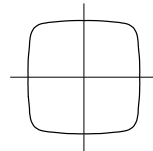


Symmetric Distributions

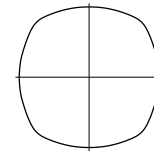
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

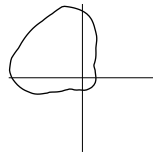


5WQ (Type V Square Wide)

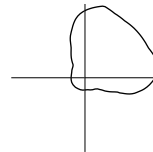


Specialized Distributions

SLL (90° Spill Light Eliminator Left)



SLR (90° Spill Light Eliminator Right)



Lumen Maintenance

Ambient Temperature	25,000 hours	50,000 hours	60,000 hours	100,000 hours	L70 (20,000)
25C	99%	94%	92%	85%	>120,000 hrs
40C	99%	94%	92%	85%	>120,000 hrs

Note: ANSI/IES TM-21-21

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99

LED Color Multipliers

CRI	CCT					
	2200	2700	3000	3500	4000	5000
Lumen Multiplier*						
70	0.74	0.84	0.91	0.93	1.00	1.00
80	--	0.75	--	--	--	--

Note: * Estimates, refer to IES files for accuracy.

[View MSA Mesa IES files](#)

Energy and Performance Data

Power and Lumens (1.2A)

Number of Light Squares		1	2
Nominal Power (Watts)		61	123
Input Current @ 24Vdc (A)		2.56	5.11
Optics			
T2	4000K/5000K Lumens	6,840	13,452
	4000K/5000K Lumens Per Watt	112	110
	3000K Lumens	6,229	12,251
	3000K Lumens Per Watt	102	100
	BUG Rating	B1-U0-G2	B2-U0-G2
T3	4000K/5000K Lumens	6,848	13,468
	4000K/5000K Lumens Per Watt	112	110
	3000K Lumens	6,236	12,266
	3000K Lumens Per Watt	102	100
	BUG Rating	B1-U0-G2	B2-U0-G2
T4FT	4000K/5000K Lumens	6,873	13,519
	4000K/5000K Lumens Per Watt	112	110
	3000K Lumens	6,260	12,312
	3000K Lumens Per Watt	102	100
	BUG Rating	B1-U0-G2	B2-U0-G3
T4W	4000K/5000K Lumens	6,953	13,675
	4000K/5000K Lumens Per Watt	113	111
	3000K Lumens	6,332	12,454
	3000K Lumens Per Watt	103	102
	BUG Rating	B1-U0-G2	B2-U0-G3
SL2	4000K/5000K Lumens	6,812	13,399
	4000K/5000K Lumens Per Watt	111	109
	3000K Lumens	6,204	12,202
	3000K Lumens Per Watt	101	99
	BUG Rating	B1-U0-G2	B2-U0-G3
SL3	4000K/5000K Lumens	6,729	13,234
	4000K/5000K Lumens Per Watt	110	108
	3000K Lumens	6,128	12,053
	3000K Lumens Per Watt	100	98
	BUG Rating	B1-U0-G2	B2-U0-G3

1.2A continued on next page

Power and Lumens (1.2A)

Number of Light Squares		1	2
Nominal Power (Watts)		61	123
Input Current @ 24Vdc (A)		2.56	5.11
Optics			
SL4	4000K/5000K Lumens	6,680	13,138
	4000K/5000K Lumens Per Watt	109	107
	3000K Lumens	6,083	11,965
	3000K Lumens Per Watt	99	98
	BUG Rating	B1-U0-G2	B1-U0-G3
5NQ	4000K/5000K Lumens	7,017	13,801
	4000K/5000K Lumens Per Watt	114	113
	3000K Lumens	6,390	12,569
	3000K Lumens Per Watt	104	102
	BUG Rating	B3-U0-G1	B3-U0-G2
5MQ	4000K/5000K Lumens	7,386	14,527
	4000K/5000K Lumens Per Watt	120	118
	3000K Lumens	6,727	13,230
	3000K Lumens Per Watt	110	108
	BUG Rating	B3-U0-G1	B4-U0-G2
5WQ	4000K/5000K Lumens	7,356	14,469
	4000K/5000K Lumens Per Watt	120	118
	3000K Lumens	6,699	13,177
	3000K Lumens Per Watt	109	107
	BUG Rating	B3-U0-G2	B4-U0-G2
SLL/SLR	4000K/5000K Lumens	5,874	11,554
	4000K/5000K Lumens Per Watt	96	94
	3000K Lumens	5,350	10,522
	3000K Lumens Per Watt	87	86
	BUG Rating	B1-U0-G2	B2-U0-G3
RW	4000K/5000K Lumens	7,042	13,851
	4000K/5000K Lumens Per Watt	115	113
	3000K Lumens	6,414	12,614
	3000K Lumens Per Watt	105	103
	BUG Rating	B3-U0-G1	B3-U0-G2

Power and Lumens (1A)

Number of Light Squares		1	2
Nominal Power (Watts)		54	107
Input Current @ 24Vdc (A)		2.24	4.47
Optics			
T2	4000K/5000K Lumens	6,256	12,304
	4000K/5000K Lumens Per Watt	117	115
	3000K Lumens	5,697	11,205
	3000K Lumens Per Watt	106	104
	BUG Rating	B1-U0-G2	B2-U0-G2
T3	4000K/5000K Lumens	6,263	12,318
	4000K/5000K Lumens Per Watt	117	115
	3000K Lumens	5704	11219
	3000K Lumens Per Watt	106	105
	BUG Rating	B1-U0-G2	B2-U0-G2
T4FT	4000K/5000K Lumens	6,287	12,365
	4000K/5000K Lumens Per Watt	117	115
	3000K Lumens	5,725	11,261
	3000K Lumens Per Watt	107	105
	BUG Rating	B1-U0-G2	B2-U0-G3
T4W	4000K/5000K Lumens	6,359	12,508
	4000K/5000K Lumens Per Watt	118	117
	3000K Lumens	5,792	11,391
	3000K Lumens Per Watt	108	106
	BUG Rating	B1-U0-G2	B2-U0-G3
SL2	4000K/5000K Lumens	6,231	12,255
	4000K/5000K Lumens Per Watt	116	114
	3000K Lumens	5,674	11,161
	3000K Lumens Per Watt	106	104
	BUG Rating	B1-U0-G2	B2-U0-G3
SL3	4000K/5000K Lumens	6,154	12,104
	4000K/5000K Lumens Per Watt	115	113
	3000K Lumens	5,605	11,024
	3000K Lumens Per Watt	104	103
	BUG Rating	B1-U0-G2	B2-U0-G3

1A continued on next page

Power and Lumens (1A)

Number of Light Squares		1	2
Nominal Power (Watts)		54	107
Input Curren @ 24Vdc (A)		2.24	4.47
Optics			
SL4	4000K/5000K Lumens	6,109	12,016
	4000K/5000K Lumens Per Watt	114	112
	3000K Lumens	5,564	10,943
	3000K Lumens Per Watt	104	102
	BUG Rating	B1-U0-G2	B1-U0-G3
5NQ	4000K/5000K Lumens	6,418	12,623
	4000K/5000K Lumens Per Watt	120	118
	3000K Lumens	5,845	11,496
	3000K Lumens Per Watt	109	107
	BUG Rating	B2-U0-G1	B3-U0-G2
5MQ	4000K/5000K Lumens	6,756	13,287
	4000K/5000K Lumens Per Watt	126	124
	3000K Lumens	6,152	12,101
	3000K Lumens Per Watt	115	113
	BUG Rating	B3-U0-G1	B4-U0-G2
5WQ	4000K/5000K Lumens	5,728	13,233
	4000K/5000K Lumens Per Watt	107	123
	3000K Lumens	6,127	12,052
	3000K Lumens Per Watt	114	112
	BUG Rating	B3-U0-G2	B4-U0-G2
SLL/ SLR	4000K/5000K Lumens	5,373	10,568
	4000K/5000K Lumens Per Watt	100	98
	3000K Lumens	4,893	9,624
	3000K Lumens Per Watt	91	90
	BUG Rating	B1-U0-G2	B1-U0-G3
RW	4000K/5000K Lumens	6,441	12,669
	4000K/5000K Lumens Per Watt	120	118
	3000K Lumens	5,866	11,538
	3000K Lumens Per Watt	109	108
	BUG Rating	B3-U0-G1	B3-U0-G2

Power and Lumens (800mA)

Number of Light Squares		1	2
Nominal Power (Watts)		41	82
Input Current @ 24Vdc (A)		1.70	3.41
Optics			
T2	4000K/5000K Lumens	5,051	9,935
	4000K/5000K Lumens Per Watt	124	121
	3000K Lumens	4,600	9,048
	3000K Lumens Per Watt	112	111
	BUG Rating	B1-U0-G1	B2-U0-G2
T3	4000K/5000K Lumens	5,057	9,947
	4000K/5000K Lumens Per Watt	124	122
	3000K Lumens	4,606	9,059
	3000K Lumens Per Watt	113	111
	BUG Rating	B1-U0-G1	B2-U0-G2
T4FT	4000K/5000K Lumens	5,076	9,984
	4000K/5000K Lumens Per Watt	124	122
	3000K Lumens	4,623	9,093
	3000K Lumens Per Watt	113	111
	BUG Rating	B1-U0-G2	B1-U0-G2
T4W	4000K/5000K Lumens	5,135	10,100
	4000K/5000K Lumens Per Watt	126	124
	3000K Lumens	4,676	9,198
	3000K Lumens Per Watt	114	112
	BUG Rating	B1-U0-G2	B2-U0-G2
SL2	4000K/5000K Lumens	5,031	9,895
	4000K/5000K Lumens Per Watt	123	121
	3000K Lumens	4,582	9,012
	3000K Lumens Per Watt	112	110
	BUG Rating	B1-U0-G1	B2-U0-G2
SL3	4000K/5000K Lumens	4,969	9,774
	4000K/5000K Lumens Per Watt	122	120
	3000K Lumens	4,526	8,901
	3000K Lumens Per Watt	111	109
	BUG Rating	B1-U0-G2	B1-U0-G2
SL4	4000K/5000K Lumens	4,933	9,703
	4000K/5000K Lumens Per Watt	121	119
	3000K Lumens	4,493	8,836
	3000K Lumens Per Watt	110	108
	BUG Rating	B1-U0-G2	B1-U0-G3

800mA continued on next page

Power and Lumens (800mA)

Number of Light Squares		1	2
Nominal Power (Watts)		41	82
Input Current @ 24Vdc (A)		1.70	3.41
Optics			
5NQ	4000K/5000K Lumens	5,182	10,193
	4000K/5000K Lumens Per Watt	127	125
	3000K Lumens	4,720	9,283
	3000K Lumens Per Watt	115	114
	BUG Rating	B2-U0-G1	B3-U0-G1
5MQ	4000K/5000K Lumens	5,455	10,729
	4000K/5000K Lumens Per Watt	133	131
	3000K Lumens	4,968	9,771
	3000K Lumens Per Watt	121	119
	BUG Rating	B3-U0-G1	B3-U0-G2
5WQ	4000K/5000K Lumens	5,433	10,685
	4000K/5000K Lumens Per Watt	133	131
	3000K Lumens	4,948	9,731
	3000K Lumens Per Watt	121	119
	BUG Rating	B3-U0-G1	B4-U0-G2
SLL/SLR	4000K/5000K Lumens	4,338	8,533
	4000K/5000K Lumens Per Watt	106	104
	3000K Lumens	3,951	7,771
	3000K Lumens Per Watt	97	95
	BUG Rating	B1-U0-G2	B1-U0-G2
RW	4000K/5000K Lumens	5,201	10,229
	4000K/5000K Lumens Per Watt	127	125
	3000K Lumens	4,737	9,316
	3000K Lumens Per Watt	116	114
	BUG Rating	B2-U0-G1	B3-U0-G1

Power and Lumens (600mA)

Number of Light Squares		1	2
Nominal Power (Watts)		31	61
Input Current @ 24Vdc (A)		1.28	2.56
Optics			
T2	4000K/5000K Lumens	4,031	7,928
	4000K/5000K Lumens Per Watt	131	129
	3000K Lumens	3,671	7,220
	3000K Lumens Per Watt	120	118
	BUG Rating	B1-U0-G1	B1-U0-G2
T3	4000K/5000K Lumens	4,035	7,937
	4000K/5000K Lumens Per Watt	132	129
	3000K Lumens	2,675	7,228
	3000K Lumens Per Watt	87	118
	BUG Rating	B1-U0-G1	B1-U0-G2
T4FT	4000K/5000K Lumens	4,051	7,967
	4000K/5000K Lumens Per Watt	132	130
	3000K Lumens	3,689	7,255
	3000K Lumens Per Watt	120	118
	BUG Rating	B1-U0-G1	B1-U0-G2
T4W	4000K/5000K Lumens	4,097	8,059
	4000K/5000K Lumens Per Watt	134	131
	3000K Lumens	3,732	7,340
	3000K Lumens Per Watt	122	120
	BUG Rating	B1-U0-G1	B2-U0-G2
SL2	4000K/5000K Lumens	4,015	7,896
	4000K/5000K Lumens Per Watt	131	129
	3000K Lumens	3,656	7,191
	3000K Lumens Per Watt	119	117
	BUG Rating	B1-U0-G1	B1-U0-G2
SL3	4000K/5000K Lumens	3,965	7,799
	4000K/5000K Lumens Per Watt	129	127
	3000K Lumens	3,611	7,103
	3000K Lumens Per Watt	118	116
	BUG Rating	B1-U0-G1	B1-U0-G2
SL4	4000K/5000K Lumens	3,936	7,742
	4000K/5000K Lumens Per Watt	128	126
	3000K Lumens	3,585	7,051
	3000K Lumens Per Watt	117	115
	BUG Rating	B1-U0-G2	B1-U0-G2

600mA continued on next page

Power and Lumens (600mA)

Number of Light Squares		1	2
Nominal Power (Watts)		31	61
Input Current @ 24Vdc (A)		1.28	2.56
Optics			
5NQ	4000K/5000K Lumens	4,135	8,133
	4000K/5000K Lumens Per Watt	135	133
	3000K Lumens	3,766	7,407
	3000K Lumens Per Watt	123	121
	BUG Rating	B2-U0-G1	B3-U0-G1
5MQ	4000K/5000K Lumens	4,353	8,561
	4000K/5000K Lumens Per Watt	142	140
	3000K Lumens	3,964	7,797
	3000K Lumens Per Watt	129	127
	BUG Rating	B3-U0-G1	B3-U0-G2
5WQ	4000K/5000K Lumens	4,335	8,526
	4000K/5000K Lumens Per Watt	141	139
	3000K Lumens	3,948	7,765
	3000K Lumens Per Watt	129	127
	BUG Rating	B3-U0-G1	B3-U0-G2
SLL/SLR	4000K/5000K Lumens	3,462	6,809
	4000K/5000K Lumens Per Watt	113	111
	3000K Lumens	3,153	6,201
	3000K Lumens Per Watt	103	101
	BUG Rating	B1-U0-G1	B1-U0-G2
RW	4000K/5000K Lumens	4,150	8,163
	4000K/5000K Lumens Per Watt	135	133
	3000K Lumens	3,780	7,434
	3000K Lumens Per Watt	123	121
	BUG Rating	B2-U0-G1	B3-U0-G1