

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: SURE-LITES

Report Number:

Luminaire Tested: **029-15**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number:  
Test Lab:  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SURE-LITES  
Catalog Number: 029-15  
Description: SURE-LITES EMERGENCY  
EFFICIENCY 98.1  
Light Source: 12PAR36 12 WATTS 208 LUMENS Quartz Halogen (Low Voltage)  
6 V PAR36 HALOGEN SEALED BEAM  
ANSI# H7553  
Ballast/Driver: -

**Summary**

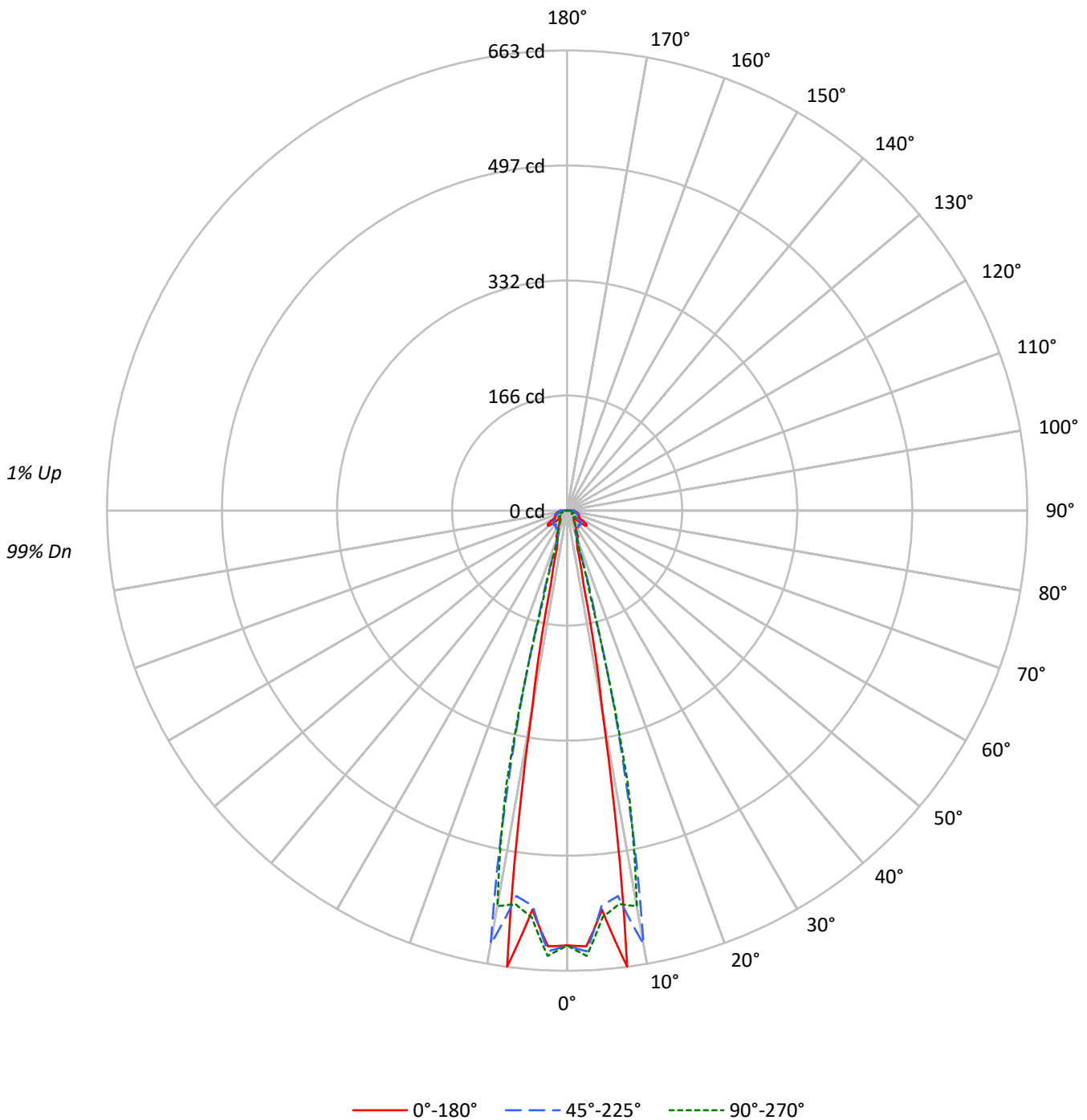
Lumens per Lamp: 208 (1 lamp)  
Luminaire Lumens: 205.1 lumens  
Efficiency: 98.6%  
Efficacy: 17.1 lumens/watt  
Spacing Criteria (0/90/45): 0.34 / 0.47 / 0.37  
Luminous Opening: (L: 0 ' x W: -0.38 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	114	114	114	114	109	109	109	104	104	104	100	100	100	98
1	108	103	99	96	105	101	97	94	97	94	91	93	90	88	89	87	85	83
2	100	93	88	83	98	92	86	82	88	84	80	85	81	78	82	79	76	74
3	94	86	79	74	92	84	78	73	81	76	72	79	74	71	76	73	69	68
4	89	80	73	67	87	78	72	67	76	71	66	74	69	65	72	68	64	63
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	68	64	60	59
6	81	71	64	59	79	70	63	59	68	62	58	67	62	58	65	61	57	56
7	77	67	61	56	76	66	60	56	65	59	55	64	59	55	63	58	55	53
8	74	64	58	53	73	64	57	53	62	57	53	61	56	53	60	56	52	51
9	72	62	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	48

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	55.1	26.9	26.5	0°	626	626	626	626	626	
10°-20°	45.2	22.1	21.7	5°	577	570	571	589	588	53
20°-30°	14.4	7.0	6.9	15°	56	57	156	154	136	24
30°-40°	13.8	6.7	6.6	25°	31	38	26	30	27	15
40°-50°	16.4	8.0	7.9	35°	17	22	29	18	18	11
50°-60°	17.3	8.4	8.3	45°	19	20	28	18	14	16
60°-70°	14.9	7.3	7.2	55°	34	18	15	23	9	27
70°-80°	15.4	7.5	7.4	65°	19	15	15	15	8	18
80°-90°	11.3	5.5	5.4	75°	16	20	13	17	5	17
90°-100°	1.2	0.6	0.6	85°	9	12	11	11	5	9
100°-110°	0.0	0.0	0.0	90°	10	9	11	8	4	4
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	114.8	56.0	55.2	165°	0	0	0	0	0	0
0°-40°	128.6	62.7	61.8	175°	0	0	0	0	0	0
0°-60°	162.3	79.1	78.0	180°	0	0	0	0	0	0
0°-90°	203.9	99.4	98.0							
90°-120°	1.2	0.6	0.6							
90°-150°	1.2	0.6	0.6							
90°-180°	1.0	0.5	0.5							
0°-180°	205.1	100.0	98.6							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	626.5	626.5	626.5	626.5	626.5
2.5°	628.4	630.2	635.7	638.0	642.3
5°	577.0	569.6	571.3	589.0	587.9
7.5°	662.8	686.7	560.0	540.9	571.7
10°	291.2	350.7	634.4	558.1	578.7
12.5°	108.8	130.5	373.0	438.3	404.0
15°	56.2	56.6	156.3	153.6	136.1
17.5°	45.8	42.3	59.6	58.3	56.1
20°	42.0	35.9	35.8	40.6	38.9
22.5°	41.3	38.6	28.5	36.0	35.2
25°	30.6	38.2	26.2	30.5	27.3
27.5°	27.7	33.2	27.3	26.2	25.6
30°	22.0	26.5	30.5	22.0	22.3
32.5°	18.5	22.3	29.6	19.4	20.1
35°	16.9	22.1	28.9	18.3	17.8
37.5°	15.4	23.4	26.5	18.4	14.8
40°	15.7	25.2	26.2	18.1	14.3
42.5°	15.9	20.6	28.2	18.1	13.5
45°	18.6	19.6	28.1	17.7	13.7
47.5°	23.9	22.5	27.5	18.1	14.6
50°	34.0	21.2	27.0	18.3	14.8
52.5°	35.4	19.9	21.7	20.2	15.6
55°	34.1	18.3	15.2	23.2	9.2
57.5°	24.6	16.5	13.4	23.1	7.9
60°	19.5	14.2	13.7	17.3	8.2
62.5°	19.3	15.5	14.4	15.1	8.3
65°	18.7	15.4	14.9	15.1	8.3
67.5°	18.1	15.3	15.8	15.5	9.8
70°	15.2	17.7	18.5	15.2	9.9
72.5°	18.0	17.6	15.5	17.0	7.1
75°	15.8	19.5	13.2	17.0	5.4
77.5°	15.0	18.0	12.7	13.9	5.4
80°	13.9	15.4	11.7	11.2	5.3
82.5°	13.5	12.8	10.9	10.8	6.2
85°	9.3	11.8	10.6	10.7	5.0
87.5°	9.2	10.9	11.1	11.5	4.4
90°	10.1	8.9	10.6	8.0	4.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)