

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: **029-16**

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: 029-16  
Description: SURE-LITES EMERGENCY  
EFFICIENCY 100.1  
Light Source: 8PAR36 8 WATTS 167 LUMENS Quartz Halogen (Low Voltage)  
12 V PAR36 HALOGEN SEALED BEAM  
ANSI# H7555  
Ballast/Driver: -

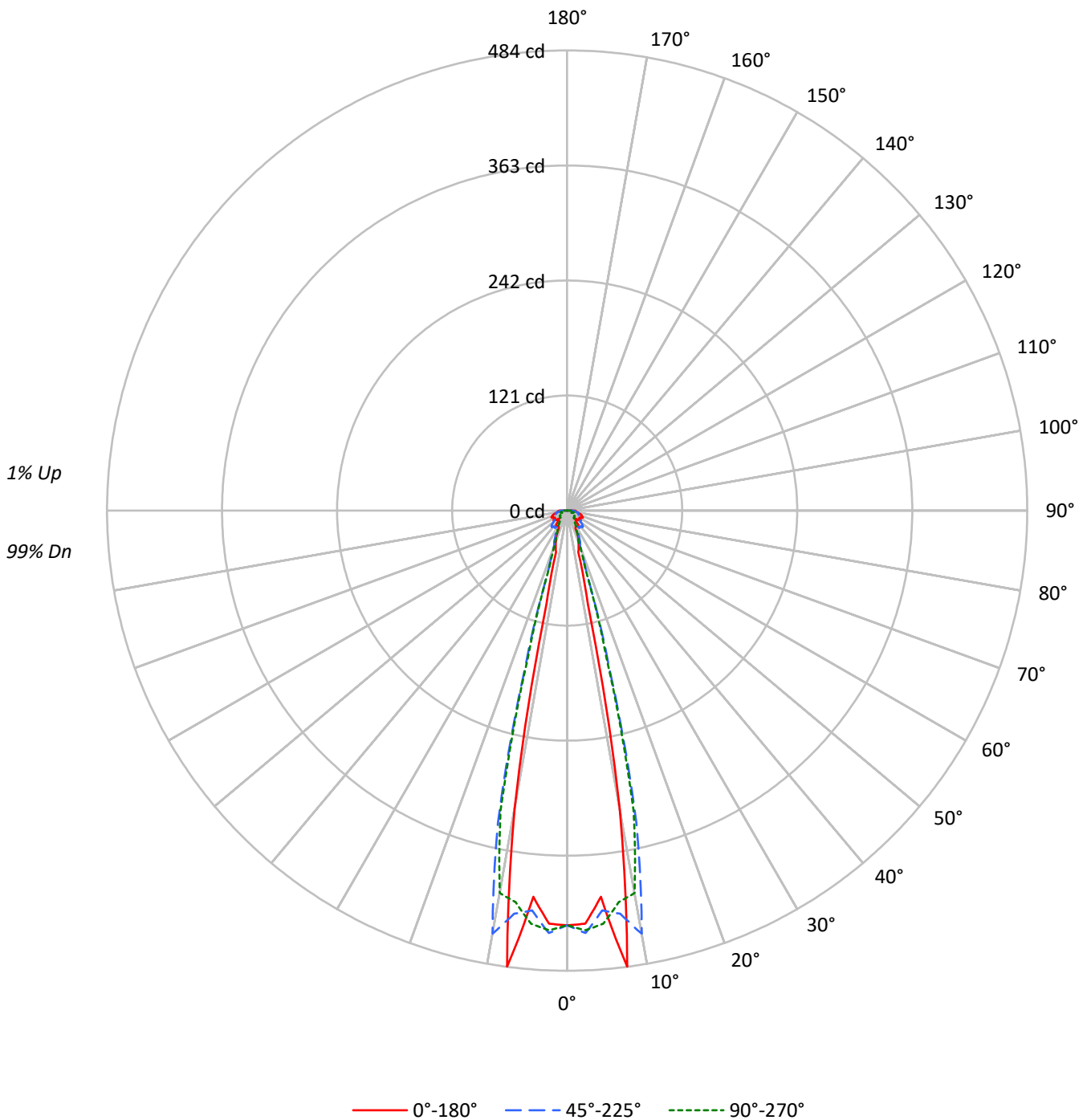
**Summary**

Lumens per Lamp: 167 (1 lamp)  
Luminaire Lumens: 167.9 lumens  
Efficiency: 100.5%  
Efficacy: 21.0 lumens/watt  
Spacing Criteria (0/90/45): 0.39 / 0.49 / 0.41  
Luminous Opening: (L: 0 ' x W: -0.38 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 8  
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

TEST NUMBER:  
CATALOG NUMBER: 029-16

### 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	120	120	120	120	117	117	117	117	111	111	111		107	107	107		102	102	102	100
1	110	106	101	98	107	103	100	96	99	96	93		95	92	90		91	89	87	85
2	102	95	90	85	100	93	88	84	90	85	82		87	83	80		84	81	78	76
3	96	88	81	75	94	86	80	75	83	78	73		80	76	72		78	74	71	69
4	91	81	74	69	89	80	73	68	78	72	67		75	71	67		73	69	66	64
5	86	76	69	64	84	75	68	64	73	67	63		71	66	62		70	65	62	60
6	82	72	65	60	81	71	64	60	69	64	59		68	63	59		66	62	58	57
7	79	68	62	57	77	68	61	57	66	60	56		65	60	56		64	59	56	54
8	76	65	59	54	74	65	58	54	63	58	54		62	57	53		61	57	53	52
9	73	62	56	52	72	62	56	52	61	55	52		60	55	51		59	54	51	50
10	70	60	54	50	69	60	54	50	59	53	50		58	53	50		57	53	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°	40.7	24.2	24.4	0°	436	436	436	436	436	
10°-20°	42.1	25.1	25.2	5°	408	409	422	436	436	40
20°-30°	12.4	7.4	7.4	15°	46	54	170	209	160	23
30°-40°	11.9	7.1	7.1	25°	21	25	29	26	24	11
40°-50°	12.6	7.5	7.6	35°	20	24	22	15	13	12
50°-60°	13.4	8.0	8.0	45°	12	15	23	15	10	10
60°-70°	12.9	7.7	7.7	55°	18	15	16	17	9	14
70°-80°	12.4	7.4	7.4	65°	18	16	12	14	5	17
80°-90°	8.7	5.2	5.2	75°	14	13	12	12	8	15
90°-100°	0.9	0.5	0.5	85°	10	9	8	8	4	8
100°-110°	0.0	0.0	0.0	90°	8	6	7	6	4	3
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°	95.1	56.7	57.0	165°	0	0	0	0	0	0
0°-40°	107.0	63.7	64.1	175°	0	0	0	0	0	0
0°-60°	133.0	79.2	79.7	180°	0	0	0	0	0	0
0°-90°	167.0	99.5	100.0							
90°-120°	0.9	0.5	0.5							
90°-150°	0.9	0.5	0.5							
90°-180°	1.0	0.6	0.6							
0°-180°	167.9	100.0	100.5							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	436.1	436.1	436.1	436.1	436.1
2.5°	434.9	436.5	444.8	444.9	441.8
5°	407.8	408.9	422.2	435.8	436.2
7.5°	483.8	473.2	427.6	423.4	415.3
10°	318.3	351.9	451.9	395.4	408.4
12.5°	100.6	152.1	336.5	358.1	323.4
15°	45.5	54.0	169.7	208.9	159.7
17.5°	39.9	36.3	64.8	77.6	62.7
20°	34.6	38.6	40.3	40.9	37.0
22.5°	30.7	29.1	35.4	30.7	29.4
25°	20.6	25.0	29.0	26.5	23.8
27.5°	18.8	23.0	25.3	21.5	21.7
30°	18.8	21.6	22.4	18.1	18.0
32.5°	19.1	22.1	19.6	16.0	14.8
35°	19.7	23.9	22.3	15.2	12.9
37.5°	19.4	22.1	21.9	15.5	12.7
40°	14.9	19.0	21.7	15.3	11.6
42.5°	12.6	17.2	23.8	14.6	10.4
45°	11.9	14.7	23.4	15.3	9.8
47.5°	13.4	15.5	21.4	15.7	10.5
50°	15.7	16.0	18.3	14.9	9.9
52.5°	15.3	15.5	17.1	16.8	9.6
55°	17.7	15.0	15.9	17.0	9.1
57.5°	15.9	14.7	15.3	15.8	8.0
60°	14.7	15.0	13.1	15.5	6.2
62.5°	15.8	14.4	11.9	13.3	5.1
65°	17.8	15.6	11.9	13.7	5.1
67.5°	18.1	15.9	11.8	12.5	5.8
70°	16.4	15.4	13.2	11.6	6.6
72.5°	15.5	14.0	12.5	12.3	6.2
75°	14.1	13.0	12.3	11.5	7.5
77.5°	12.5	13.3	11.8	11.1	5.2
80°	10.7	11.7	10.6	10.3	4.5
82.5°	9.7	9.9	8.8	8.7	5.1
85°	9.7	8.6	8.0	7.9	4.4
87.5°	8.5	7.2	7.2	7.0	4.2
90°	8.5	6.5	6.9	6.4	3.8
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



TEST NUMBER:

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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)