

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: H27017

Luminaire Tested: **029-66**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: H27017
Test Lab:
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SURE-LITES
Catalog Number: 029-66
Description: SURE-LITES 4" DIA EMERGENCY HEAD
SPECULAR REFLECTOR WITH GLASS LENS, EFFICIENCY 86.5
Light Source: T 2 1/4 12 WATTS 240 LUMENS Quartz Halogen (Low Voltage)
6V BI-PIN HALOGEN
Ballast/Driver: -

Summary

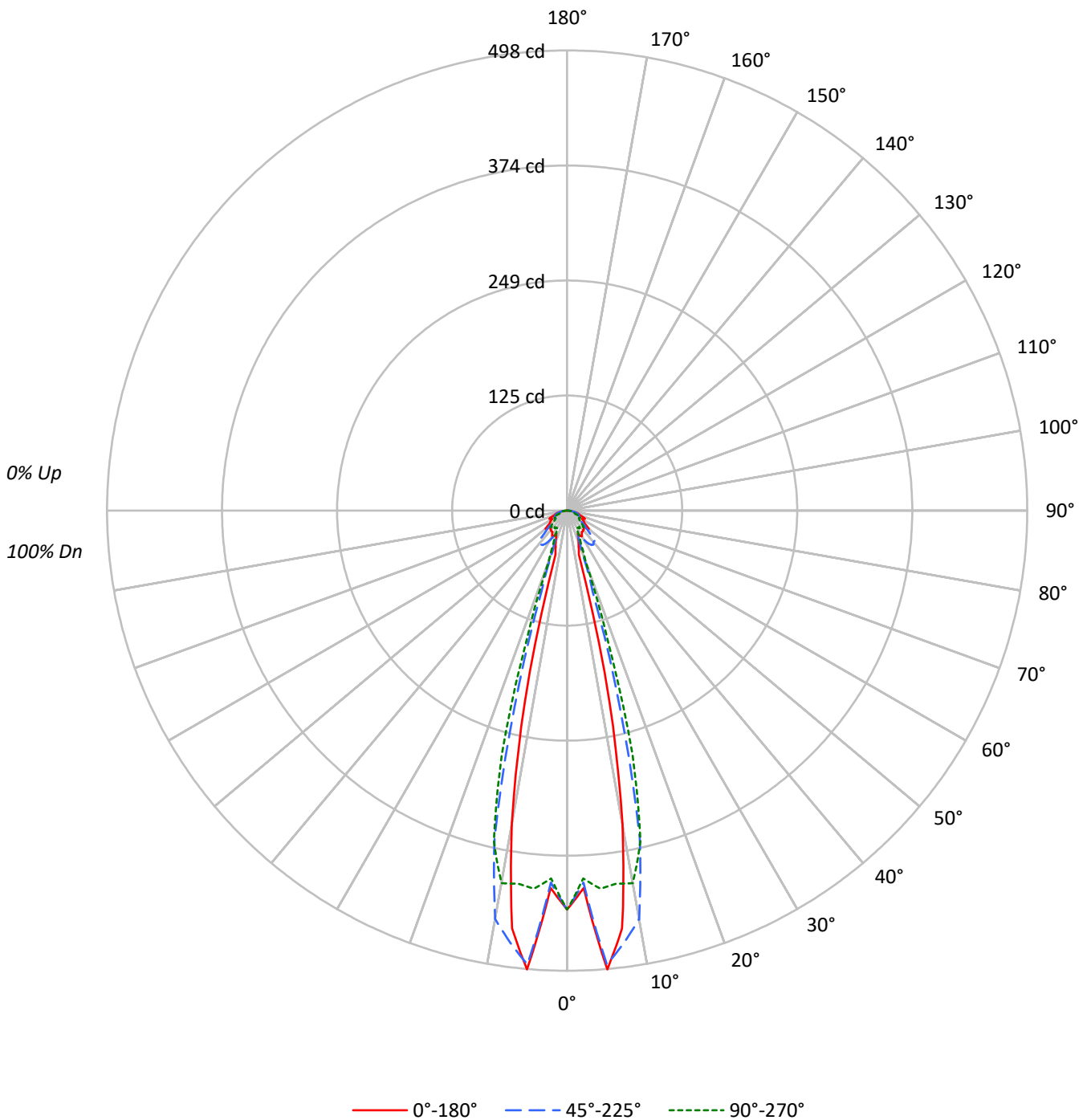
Lumens per Lamp: 240 (1 lamp)
Luminaire Lumens: 208.2 lumens
Efficiency: 86.8%
Efficacy: 17.4 lumens/watt
Spacing Criteria (0/90/45): 0.43 / 0.56 / 0.43
Luminous Opening: (L: 0 ' x W: -0.33 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 12
Input Voltage (V): NR
Input Current (Ain): 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	103	103	103	103	101	101	101	101	96	96	96		92	92	92		88	88	88	87
1	96	93	90	87	94	91	88	86	87	85	83		84	82	80		81	79	78	76
2	90	84	79	75	88	82	78	74	80	76	73		77	74	71		74	72	70	68
3	84	77	71	67	82	76	70	66	73	69	65		71	67	64		69	66	63	61
4	79	71	65	60	77	70	64	60	68	63	59		66	62	59		64	61	58	56
5	75	66	60	56	73	65	60	55	64	59	55		62	58	54		61	57	54	52
6	71	62	56	52	70	61	56	51	60	55	51		59	54	51		57	53	50	49
7	68	59	53	48	66	58	52	48	57	52	48		56	51	48		55	51	47	46
8	65	56	50	46	64	55	50	46	54	49	45		53	49	45		52	48	45	44
9	62	53	47	44	61	52	47	43	52	47	43		51	46	43		50	46	43	42
10	60	51	45	42	59	50	45	42	49	45	41		49	44	41		48	44	41	40

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°	42.6	20.5	17.7	0°	432	432	432	432	432	
10°-20°	54.2	26.0	22.6	5°	498	501	493	439	411	42
20°-30°	15.8	7.6	6.6	15°	49	87	220	290	273	30
30°-40°	21.0	10.1	8.8	25°	28	37	29	26	32	14
40°-50°	22.9	11.0	9.5	35°	28	41	45	26	24	18
50°-60°	19.9	9.6	8.3	45°	26	22	35	36	25	20
60°-70°	16.7	8.0	7.0	55°	22	23	15	30	16	21
70°-80°	11.0	5.3	4.6	65°	21	16	15	22	15	19
80°-90°	3.9	1.9	1.6	75°	12	12	11	9	8	12
90°-100°	0.1	0.1	0.1	85°	2	3	4	4	3	3
100°-110°	0.0	0.0	0.0	90°	0	1	2	1	1	0
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°	112.6	54.1	46.9	165°	0	0	0	0	0	0
0°-40°	133.6	64.2	55.7	175°	0	0	0	0	0	0
0°-60°	176.5	84.8	73.5	180°	0	0	0	0	0	0
0°-90°	208.1	99.9	86.7							
90°-120°	0.1	0.1	0.1							
90°-150°	0.1	0.1	0.1							
90°-180°	0.0	0.0	0.0							
0°-180°	208.2	100.0	86.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	431.7	431.7	431.7	431.7	431.7
2.5°	408.8	407.2	403.1	400.6	398.6
5°	498.5	501.1	493.1	439.4	410.7
7.5°	455.9	458.8	471.8	476.4	407.3
10°	344.6	382.4	448.7	472.1	409.4
12.5°	211.8	282.5	363.2	409.5	366.4
15°	49.2	87.1	219.6	289.9	273.4
17.5°	41.4	43.9	92.5	135.0	140.8
20°	36.4	38.7	45.4	63.3	58.2
22.5°	30.9	39.1	31.5	36.4	38.6
25°	27.5	37.2	28.9	25.7	31.8
27.5°	31.4	41.7	31.4	25.7	22.1
30°	32.2	43.2	36.5	23.7	21.9
32.5°	30.0	41.2	41.9	25.0	21.7
35°	28.0	41.1	45.4	25.6	23.5
37.5°	28.2	36.4	46.6	27.4	21.8
40°	27.2	27.7	44.2	30.7	22.2
42.5°	26.8	24.2	44.1	32.2	23.9
45°	25.6	22.5	34.9	35.5	25.2
47.5°	24.5	21.6	27.4	38.6	21.8
50°	30.7	22.1	23.7	41.0	19.1
52.5°	25.3	23.3	18.6	37.3	17.0
55°	22.3	22.8	15.2	29.7	16.1
57.5°	21.6	20.1	16.2	23.5	15.0
60°	18.9	18.5	15.2	21.2	15.6
62.5°	18.7	17.1	14.9	21.0	16.4
65°	21.4	16.5	14.7	21.6	15.2
67.5°	18.8	17.0	13.3	19.6	9.9
70°	14.3	16.1	12.9	14.7	8.3
72.5°	13.3	13.2	12.2	10.7	8.3
75°	12.2	12.3	10.9	9.4	7.7
77.5°	10.1	9.7	8.9	9.2	6.7
80°	7.5	7.1	7.6	7.1	4.4
82.5°	5.3	5.1	5.2	5.4	3.5
85°	1.8	2.6	4.2	4.3	3.3
87.5°	1.0	1.2	2.7	2.3	2.3
90°	0.5	0.6	1.6	0.8	0.8
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



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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)