

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: H27019

Luminaire Tested: **029-40**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: H27019
Test Lab:
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SURE-LITES
Catalog Number: 029-40
Description: SURE-LITES 4" DIA EMERGENCY HEAD
SPECULAR REFLECTOR WITH GLASS LENS, EFFICIENCY 86.5
Light Source: T 2 1/4 10 WATTS 201 LUMENS Quartz Halogen (Low Voltage)
6V BI-PIN HALOGEN
ANSI# 787
Ballast/Driver: -

Summary

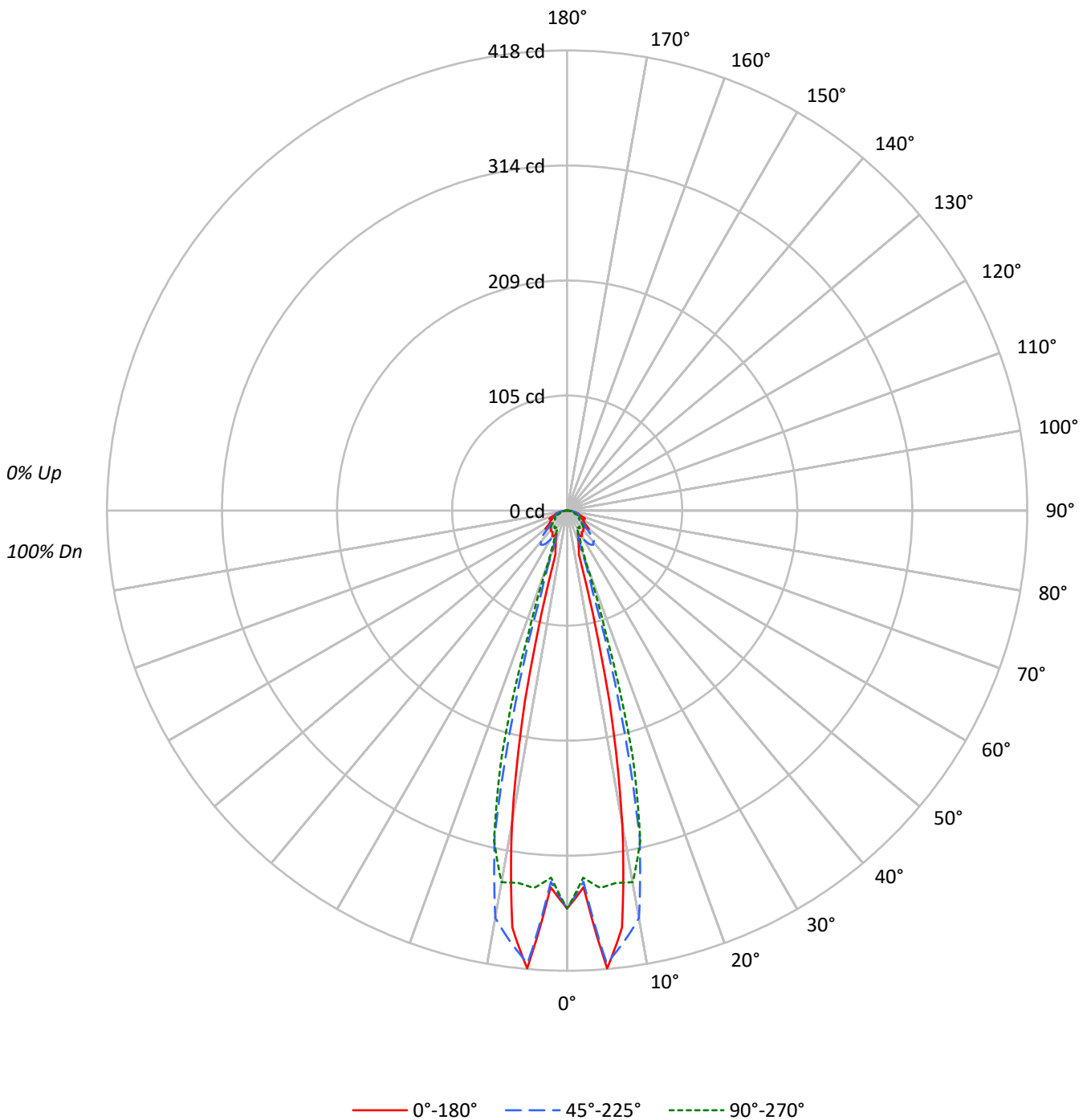
Lumens per Lamp: 201 (1 lamp)
Luminaire Lumens: 174.4 lumens
Efficiency: 86.8%
Efficacy: 17.4 lumens/watt
Spacing Criteria (0/90/45): 0.43 / 0.56 / 0.43
Luminous Opening: (L: 0 ' x W: -0.33 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 10
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°	35.7	20.5	17.7	0°	362	362	362	362	362	
10°-20°	45.4	26.0	22.6	5°	418	420	413	368	344	35
20°-30°	13.2	7.6	6.6	15°	41	73	184	243	229	25
30°-40°	17.6	10.1	8.8	25°	23	31	24	22	27	12
40°-50°	19.2	11.0	9.5	35°	24	34	38	22	20	15
50°-60°	16.7	9.6	8.3	45°	21	19	29	30	21	17
60°-70°	14.0	8.0	6.9	55°	19	19	13	25	14	18
70°-80°	9.2	5.3	4.6	65°	18	14	12	18	13	16
80°-90°	3.3	1.9	1.6	75°	10	10	9	8	6	10
90°-100°	0.1	0.1	0.1	85°	2	2	4	4	3	3
100°-110°	0.0	0.0	0.0	90°	0	0	1	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°	94.3	54.1	46.9	165°	0	0	0	0	0	0
0°-40°	111.9	64.2	55.7	175°	0	0	0	0	0	0
0°-60°	147.8	84.7	73.5	180°	0	0	0	0	0	0
0°-90°	174.3	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°	174.4	100.0	86.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	361.5	361.5	361.5	361.5	361.5
2.5°	342.4	341.0	337.6	335.5	333.8
5°	417.5	419.7	413.0	368.0	344.0
7.5°	381.8	384.2	395.1	398.9	341.1
10°	288.6	320.3	375.8	395.4	342.8
12.5°	177.4	236.6	304.2	343.0	306.9
15°	41.2	73.0	183.9	242.8	229.0
17.5°	34.7	36.8	77.5	113.1	117.9
20°	30.5	32.4	38.0	53.0	48.7
22.5°	25.9	32.7	26.4	30.5	32.3
25°	23.0	31.1	24.2	21.5	26.6
27.5°	26.3	35.0	26.3	21.5	18.5
30°	26.9	36.2	30.5	19.8	18.3
32.5°	25.1	34.5	35.1	20.9	18.2
35°	23.5	34.4	38.0	21.5	19.7
37.5°	23.6	30.5	39.1	23.0	18.3
40°	22.8	23.2	37.0	25.7	18.6
42.5°	22.4	20.3	36.9	27.0	20.0
45°	21.4	18.8	29.2	29.7	21.1
47.5°	20.5	18.1	23.0	32.4	18.3
50°	25.7	18.5	19.9	34.4	16.0
52.5°	21.2	19.5	15.6	31.2	14.2
55°	18.6	19.1	12.7	24.9	13.5
57.5°	18.1	16.9	13.6	19.7	12.6
60°	15.8	15.5	12.7	17.7	13.1
62.5°	15.6	14.3	12.5	17.6	13.7
65°	17.9	13.8	12.3	18.1	12.7
67.5°	15.7	14.2	11.1	16.4	8.3
70°	12.0	13.5	10.8	12.3	6.9
72.5°	11.1	11.1	10.2	9.0	6.9
75°	10.3	10.3	9.2	7.9	6.4
77.5°	8.5	8.2	7.5	7.7	5.6
80°	6.3	5.9	6.4	6.0	3.7
82.5°	4.4	4.3	4.4	4.6	2.9
85°	1.5	2.2	3.5	3.6	2.8
87.5°	0.8	1.0	2.3	1.9	1.9
90°	0.4	0.5	1.4	0.7	0.7
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)