

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: P21503

Luminaire Tested: **AEL2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P21503
Test Lab: INNOVATION CENTER P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SURE-LITES
Catalog Number: AEL2
Description: SURE-LITES LED ARCHITECTURAL EMERGENCY LIGHT WITH SPECULAR REFLECTOR, CLEAR PRISMATIC LENS AND HIGH LIGHT OUTPUT. BATTERY PACK UNPLUGGED ON THIS TEST. ---ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING A 500 WATT, NIST TRACEABLE, AND OMNI-DIRECTIONAL LAB LUMEN STANDARD IN THE GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET----
Light Source: (10) SMT LEDS 5000K
SAMSUNG 5000K LED
Ballast/Driver: (1) DIGITAL ELECTRONIC DRIVER
051-1524

Summary

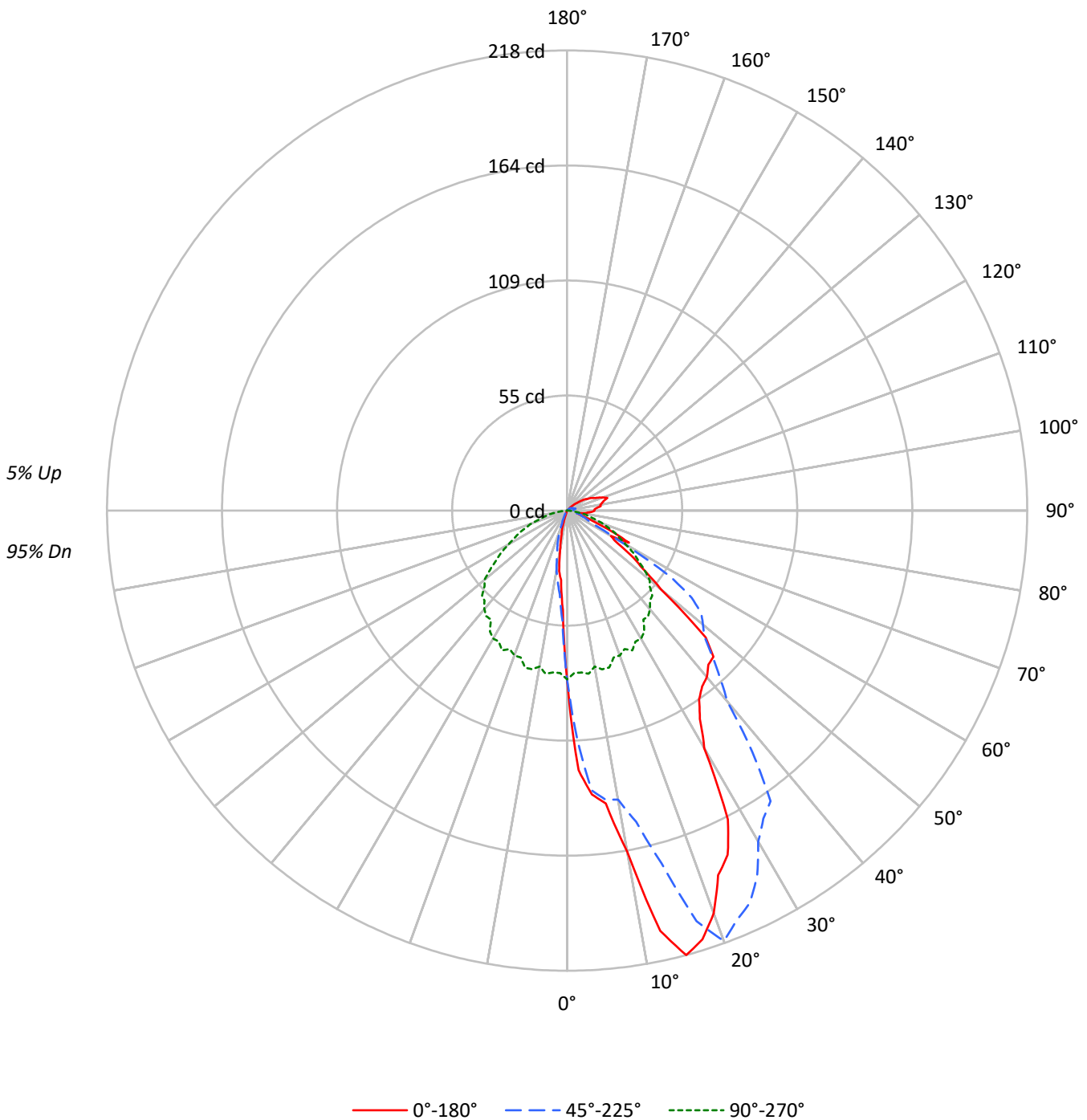
Lumens per Lamp: N/A
Luminaire Lumens: 224.6 lumens
Efficiency: N/A
Efficacy: 45.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.29 / 1.34
Luminous Opening: Rectangular (W 0.67' x L: 0.27' x H: 0')
CIE Type: Direct

Input Watts (W): 4.9
Input Voltage (V): NR
Input Current (Ain): 0.0800
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 2 HR
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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	95
1	110	106	102	99	106	103	100	97	98	95	93	93	91	89	89	87	86	84
2	101	94	88	83	98	92	87	82	88	83	79	84	80	77	80	77	75	72
3	93	84	77	71	91	82	76	70	79	73	69	75	71	67	72	69	65	63
4	86	76	68	62	84	74	67	61	71	65	60	68	63	59	66	61	57	55
5	80	68	60	54	77	67	59	54	64	58	53	62	56	52	60	55	51	49
6	74	62	54	48	72	61	53	47	58	52	47	56	51	46	55	49	45	43
7	69	56	48	43	67	55	48	42	53	47	42	52	46	41	50	45	41	39
8	64	52	44	38	62	51	43	38	49	42	38	48	42	37	46	41	37	35
9	60	48	40	35	58	47	39	34	45	39	34	44	38	34	43	37	33	32
10	56	44	37	32	55	43	36	31	42	36	31	41	35	31	40	34	30	29

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4769	4769	4769
5°	8079	4608	1975
10°	9928	4540	1150
15°	13455	4752	555
20°	12879	4631	63
25°	11840	4802	66
30°	8949	4819	0
35°	7933	4585	0
40°	8016	4747	0
45°	8262	4806	0
50°	5379	4730	0
55°	3846	4261	0
60°	2862	3815	0
65°	3244	3527	0
70°	1569	3137	0
75°	1152	2534	0
80°	2403	2060	0
85°	6840	1368	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.0	3.6
10°-20°	27.0	12.0
20°-30°	41.8	18.6
30°-40°	45.7	20.4
40°-50°	42.4	18.9
50°-60°	28.3	12.6
60°-70°	14.0	6.2
70°-80°	4.6	2.0
80°-90°	2.4	1.1
90°-100°	2.7	1.2
100°-110°	3.3	1.5
110°-120°	2.7	1.2
120°-130°	1.4	0.6
130°-140°	0.4	0.2
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	76.8	34.2
0°-40°	122.5	54.6
0°-60°	193.2	86.0
0°-90°	214.2	95.3
90°-120°	8.7	3.9
90°-150°	10.5	4.7
90°-180°	10.0	4.5
0°-180°	224.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	80	80	80	80	80	
5°	135	133	77	40	33	13
15°	218	173	77	18	9	58
25°	180	205	73	4	1	80
35°	109	168	63	1	0	70
45°	98	97	57	0	0	71
55°	37	72	41	0	0	33
65°	23	11	25	0	0	21
75°	5	4	11	0	0	7
85°	10	2	2	0	0	8
90°	13	3	0	0	0	7
95°	14	3	0	0	0	12
105°	18	3	0	0	0	19
115°	14	3	0	0	0	14
125°	8	2	0	0	0	7
135°	2	1	0	0	0	2
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	80	80	80	80	80	80	80	80	80
2.5°	123	118	108	95	77	62	52	47	47
5°	135	136	133	113	77	51	40	33	33
7.5°	140	143	138	126	78	43	34	30	29
10°	164	157	139	135	75	38	29	23	19
12.5°	204	190	151	135	77	37	22	16	13
15°	218	215	173	138	77	33	18	10	9
17.5°	213	213	204	137	73	28	14	7	5
20°	203	204	217	139	73	26	10	3	1
22.5°	187	198	210	143	71	20	6	1	1
25°	180	181	205	155	73	19	4	1	1
27.5°	165	178	195	165	70	15	3	1	0
30°	130	161	181	171	70	13	2	0	0
32.5°	117	132	173	171	68	11	1	0	0
35°	109	122	168	168	63	10	1	0	0
37.5°	105	116	144	169	63	8	1	0	0
40°	103	113	118	158	61	7	1	0	0
42.5°	99	109	107	140	58	6	0	0	0
45°	98	102	97	128	57	5	0	0	0
47.5°	89	97	88	126	53	4	0	0	0
50°	58	83	84	116	51	3	0	0	0
52.5°	45	52	80	99	46	2	0	0	0
55°	37	38	72	80	41	2	0	0	0
57.5°	27	28	57	67	37	1	0	0	0
60°	24	23	28	60	32	1	0	0	0
62.5°	33	22	15	53	28	1	0	0	0
65°	23	28	11	43	25	1	0	0	0
67.5°	14	13	9	37	21	1	0	0	0
70°	9	8	7	27	18	1	0	0	0
72.5°	6	6	7	14	14	1	0	0	0
75°	5	4	4	7	11	0	0	0	0
77.5°	6	4	3	4	9	0	0	0	0
80°	7	5	2	2	6	0	0	0	0
82.5°	9	6	2	1	3	0	0	0	0
85°	10	7	2	1	2	0	0	0	0
87.5°	12	7	3	1	1	0	0	0	0
90°	13	8	3	1	0	0	0	0	0
92.5°	13	8	3	1	0	0	0	0	0
95°	14	9	3	0	0	0	0	0	0
97.5°	16	10	3	0	0	0	0	0	0
100°	16	10	3	0	0	0	0	0	0
102.5°	17	12	4	0	0	0	0	0	0
105°	18	14	3	0	0	0	0	0	0
107.5°	20	14	3	0	0	0	0	0	0
110°	18	13	3	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	16	12	3	0	0	0	0	0	0
115°	14	12	3	0	0	0	0	0	0
117.5°	13	11	2	0	0	0	0	0	0
120°	11	10	2	0	0	0	0	0	0
122.5°	10	8	2	0	0	0	0	0	0
125°	8	7	2	0	0	0	0	0	0
127.5°	6	5	2	0	0	0	0	0	0
130°	5	4	1	0	0	0	0	0	0
132.5°	3	2	1	0	0	0	0	0	0
135°	2	2	1	0	0	0	0	0	0
137.5°	1	1	0	0	0	0	0	0	0
140°	1	1	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)