

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: ITL53255

Luminaire Tested: **SURE LITES LENSED LAMPHOLDER**

Issue Date: 03/03/2020



Test Information

Test Method: LM-79-08
Report Number: ITL53255
Test Lab:
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SURE-LITES
Catalog Number: SURE LITES LENSED LAMPHOLDER
Description: FORMED WHITE PAINTED METAL HOUSING, FORMED WHITE PAINTED METAL LAMPHOLDER WITH METAL RETAINING CLIP, CLEAR FLAT GLASS LENS.
Light Source: ONE 12-WATT FOSHAM 12V 12W 12 DEGREE MR16, VERTICAL BASE-UP POSITION.
Ballast/Driver: -

Summary

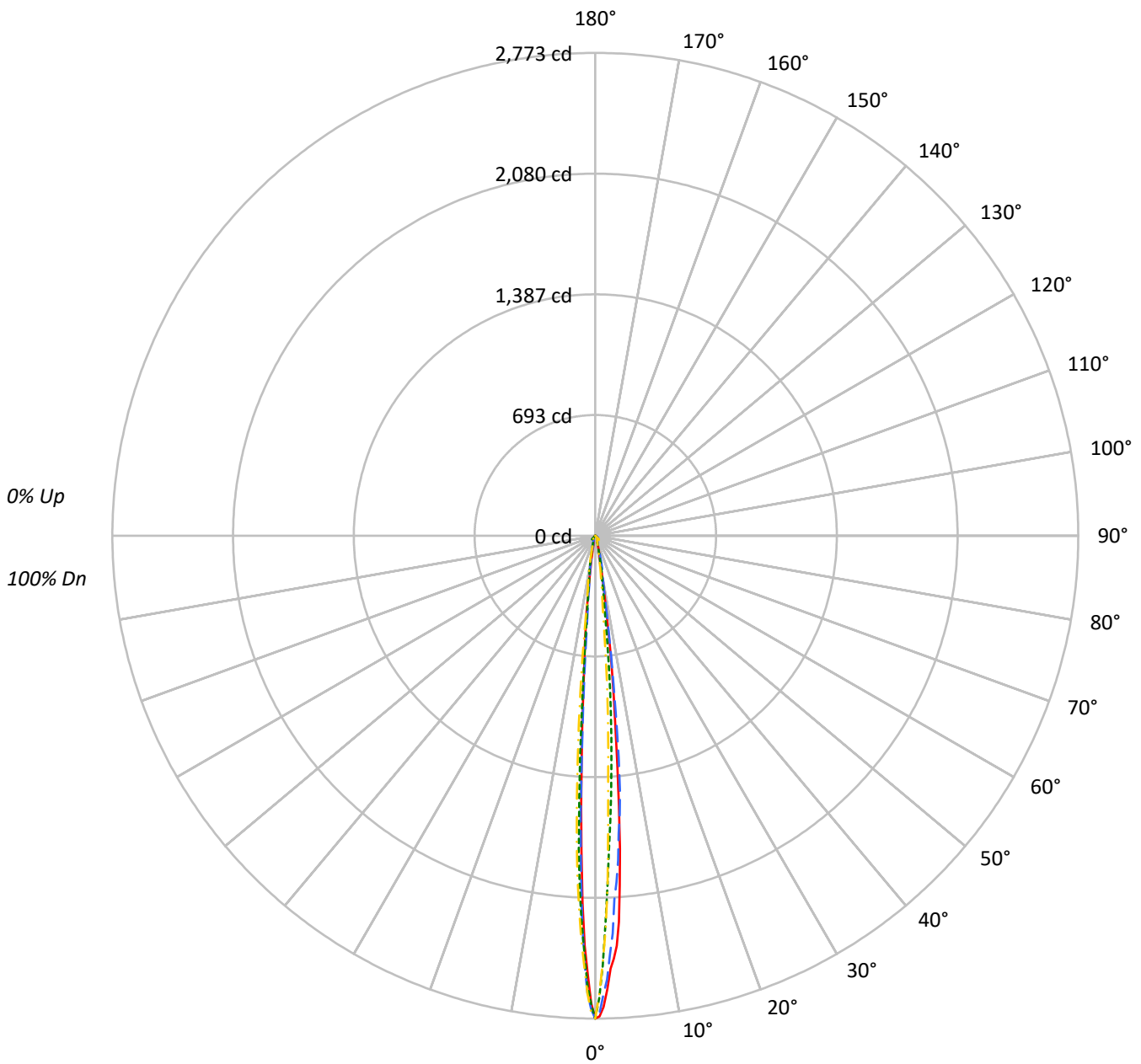
Lumens per Lamp: 140 (1 lamp)
Luminaire Lumens: 130.6 lumens
Efficiency: 93.3%
Efficacy: 10.9 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.13 / 0.15
Luminous Opening: (L: 0 ' x W: -0.14 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 12
Input Voltage (V): NR
Input Current (A_{in}): 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



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



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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	111	111	111	111	108	108	108	108	104	104	104	99	99	99	95	95	95	93
1	107	105	103	101	105	103	101	99	99	98	96	96	95	94	92	92	91	89
2	103	99	96	93	101	98	95	92	95	92	90	92	90	88	89	88	87	85
3	99	94	90	87	97	93	89	87	91	88	85	88	86	84	86	84	83	82
4	95	90	86	83	94	89	85	82	87	84	81	85	83	80	84	81	79	78
5	92	86	82	79	91	85	81	78	84	80	78	82	79	77	81	79	77	75
6	89	83	79	76	88	82	78	75	81	78	75	80	77	74	79	76	74	73
7	87	80	76	73	86	80	76	73	79	75	72	78	74	72	77	74	72	71
8	84	78	74	71	83	77	73	71	76	73	70	76	72	70	75	72	70	69
9	82	76	72	69	81	75	71	69	74	71	69	74	71	68	73	70	68	67
10	80	74	70	67	80	73	70	67	73	69	67	72	69	67	72	69	67	66

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
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°	90°	180°	270°	360°	Flux
0°-10°	69.2	53.0	49.4	0°	2773	2773	2773	2773	2773	
10°-20°	18.1	13.9	12.9	5°	1559	1015	720	758	1559	97
20°-30°	10.8	8.3	7.7	15°	58	51	34	64	58	19
30°-40°	12.9	9.9	9.2	25°	22	25	22	25	22	10
40°-50°	14.8	11.3	10.5	35°	19	19	24	14	19	12
50°-60°	3.3	2.5	2.4	45°	22	19	20	22	22	15
60°-70°	1.5	1.1	1.0	55°	3	3	3	3	3	5
70°-80°	0.0	0.0	0.0	65°	2	2	2	2	2	2
80°-90°	0.0	0.0	0.0	75°	0	0	0	0	0	0
90°-100°	0.0	0.0	0.0	85°	0	0	0	0	0	0
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	98.1	75.1	70.1							
0°-40°	111.0	85.0	79.3							
0°-60°	129.1	98.9	92.2							
0°-90°	130.6	100.0	93.3							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	130.6	100.0	93.3							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2773	2773	2773	2773	2773	2773	2773	2773	2773	2773	2773
0.5°	2761	2766	2744	2703	2656	2619	2637	2656	2683	2705	2719
1°	2707	2710	2639	2561	2468	2414	2454	2514	2514	2608	2624
1.5°	2605	2641	2549	2386	2231	2188	2254	2315	2356	2417	2432
2°	2488	2575	2403	2186	2000	1932	2003	2078	2110	2127	2186
2.5°	2432	2517	2286	1995	1805	1686	1678	1754	1810	1834	1895
3°	2358	2447	2093	1851	1642	1463	1415	1527	1554	1532	1614
3.5°	2222	2300	1993	1734	1493	1266	1217	1275	1278	1253	1290
4°	2014	2124	1871	1644	1324	1081	1032	1047	1085	1047	1003
4.5°	1803	1939	1715	1519	1169	934	854	817	851	827	793
5°	1559	1719	1603	1354	1015	800	668	614	720	678	607
5.5°	1317	1500	1478	1205	881	651	512	503	615	554	495
6°	1107	1290	1276	1054	736	500	412	415	527	453	403
6.5°	932	1042	1061	863	597	410	349	354	439	380	342
7°	776	842	861	703	483	342	293	298	336	315	285
7.5°	646	641	695	575	390	295	254	254	281	264	247
8°	512	475	541	454	324	258	231	214	231	231	227
8.5°	395	349	412	373	281	232	190	185	186	195	207
9°	308	271	320	314	244	198	163	161	154	169	181
9.5°	244	227	275	275	217	175	141	132	125	144	154
10°	200	192	244	246	200	156	129	105	105	119	127
10.5°	171	166	231	229	176	134	119	92	86	98	112
11°	146	153	219	214	151	115	102	76	71	80	103
11.5°	127	139	200	190	120	100	90	66	61	63	93
12°	114	129	183	166	100	90	85	61	51	53	85
12.5°	102	120	161	141	88	80	78	54	46	49	78
13°	93	108	136	114	78	75	71	49	42	46	66
13.5°	83	95	114	95	71	68	64	46	41	42	58
14°	75	81	93	81	64	63	58	42	37	39	53
14.5°	66	73	81	73	58	58	53	39	36	39	49
15°	58	63	73	66	51	53	51	39	34	37	47
17.5°	34	34	47	47	39	39	39	32	29	31	37
20°	27	31	37	34	31	29	32	25	25	25	27
22.5°	25	25	27	27	25	25	27	24	24	22	25
25°	22	22	25	25	25	25	24	20	22	20	22
27.5°	20	20	22	24	22	22	22	19	19	19	20
30°	19	19	20	22	19	19	19	17	19	19	19
32.5°	17	17	19	19	19	17	19	20	20	22	19
35°	19	17	17	19	19	19	25	22	24	22	22
37.5°	22	20	20	24	22	25	29	24	24	25	22
40°	20	22	24	27	25	25	29	25	22	24	25
42.5°	22	24	27	29	25	22	25	24	20	24	25
45°	22	25	25	24	19	19	20	20	20	22	24
50°	12	15	14	8	5	5	5	5	5	5	5
55°	3	3	3	3	3	3	3	3	3	3	2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
60°	3	3	3	2	2	2	2	2	2	2	2
65°	2	2	2	2	2	2	2	2	2	2	2
70°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2773	2773	2773	2773	2773	2773
0.5°	2695	2690	2715	2737	2756	2761
1°	2592	2578	2592	2627	2653	2707
1.5°	2437	2397	2412	2468	2520	2605
2°	2227	2229	2210	2315	2373	2488
2.5°	1985	2042	2049	2136	2246	2432
3°	1708	1819	1851	1954	2114	2358
3.5°	1420	1508	1639	1749	1900	2222
4°	1107	1264	1449	1519	1578	2014
4.5°	861	954	1217	1297	1408	1803
5°	671	758	1003	1098	1181	1559
5.5°	527	608	776	903	968	1317
6°	417	471	556	698	783	1107
6.5°	339	383	407	507	608	932
7°	292	322	337	414	490	776
7.5°	263	280	300	347	393	646
8°	237	249	275	310	327	512
8.5°	210	232	254	285	283	395
9°	188	215	237	259	253	308
9.5°	173	197	217	236	232	244
10°	153	178	200	215	205	200
10.5°	136	156	178	195	183	171
11°	120	134	159	168	161	146
11.5°	108	119	137	147	144	127
12°	98	107	114	129	122	114
12.5°	90	97	100	112	107	102
13°	83	88	92	100	95	93
13.5°	78	80	86	90	80	83
14°	71	75	81	80	68	75
14.5°	66	69	76	71	56	66
15°	63	64	68	64	49	58
17.5°	44	42	44	46	34	34
20°	31	36	34	32	27	27
22.5°	25	29	29	27	24	25
25°	24	25	25	24	22	22
27.5°	20	20	22	22	20	20
30°	19	19	19	25	19	19
32.5°	17	17	15	22	17	17
35°	19	14	14	17	15	19
37.5°	25	19	17	20	19	22
40°	27	25	25	25	20	20
42.5°	27	29	27	25	22	22
45°	24	22	22	24	22	22
50°	3	3	3	5	12	12
55°	3	3	3	3	3	3



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
60°	2	2	2	2	2	3
65°	0	2	2	2	2	2
70°	0	0	0	0	0	0
75°	0	0	0	0	0	0
80°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0

(END OF REPORT)