

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: FAIL-SAFE

Report Number: P557451

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-94-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P557451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-2STD-30-UNV-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEADS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

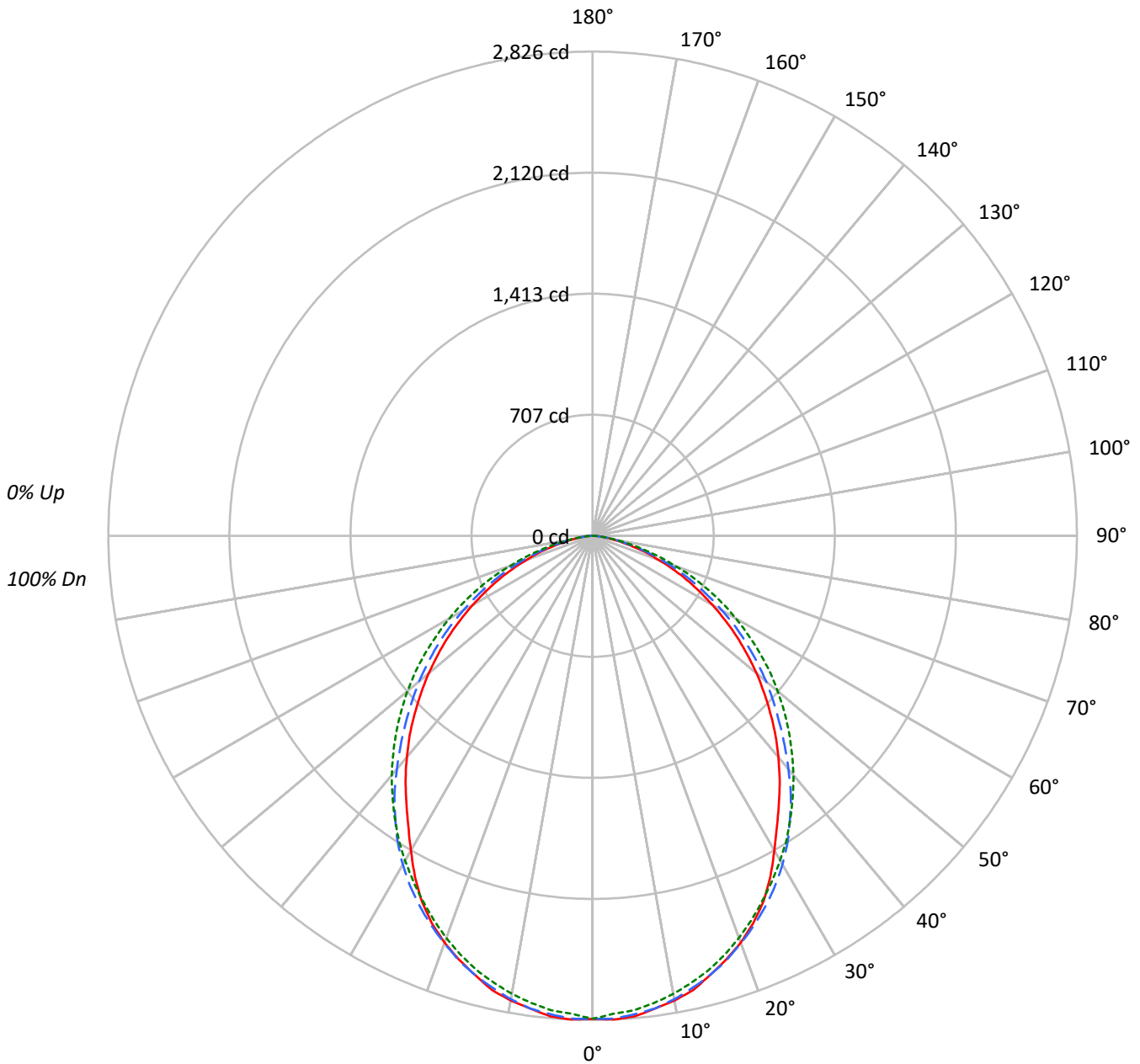
Lumens per Lamp: N/A
Luminaire Lumens: 6518.0 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7586	7586	7586
5°	7606	7574	7509
10°	7525	7504	7418
15°	7392	7392	7307
20°	7235	7244	7151
25°	6997	7084	6971
30°	6589	6885	6801
35°	6226	6599	6610
40°	5923	6243	6406
45°	5584	5864	6165
50°	5227	5526	5903
55°	4822	5142	5583
60°	4342	4692	5193
65°	3834	4172	4723
70°	3195	3553	4013
75°	2511	2837	3141
80°	1796	1998	2214
85°	1170	1170	1102



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.4	4.1
10°-20°	745.6	11.4
20°-30°	1089.6	16.7
30°-40°	1236.8	19.0
40°-50°	1193.9	18.3
50°-60°	984.9	15.1
60°-70°	655.9	10.1
70°-80°	293.5	4.5
80°-90°	52.5	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
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°	2100.6	32.2
0°-40°	3337.3	51.2
0°-60°	5516.2	84.6
0°-90°	6518.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6518.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2819	2819	2819	2819	2819	
5°	2816	2814	2804	2788	2780	266
15°	2653	2660	2653	2641	2623	748
25°	2356	2375	2386	2368	2348	1079
35°	1895	1921	2009	2020	2012	1187
45°	1467	1492	1541	1611	1620	1132
55°	1028	1045	1096	1157	1190	917
65°	602	618	655	702	742	597
75°	242	254	273	286	302	264
85°	38	38	38	36	36	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2818.9	2818.9	2818.9	2818.9	2818.9
2.5°	2826.4	2827.5	2821.0	2803.7	2792.9
5°	2815.6	2814.5	2803.7	2788.5	2779.9
7.5°	2784.2	2786.4	2783.1	2761.5	2749.6
10°	2753.9	2755.0	2746.3	2729.0	2714.9
12.5°	2714.9	2713.8	2701.9	2693.2	2670.5
15°	2653.2	2659.7	2653.2	2641.3	2622.9
17.5°	2593.6	2593.6	2597.9	2577.4	2563.3
20°	2526.5	2529.7	2529.7	2513.5	2497.2
22.5°	2448.5	2458.3	2461.5	2444.2	2424.7
25°	2356.5	2374.9	2385.7	2368.4	2347.8
27.5°	2244.9	2273.1	2305.6	2292.6	2269.8
30°	2120.4	2161.5	2215.7	2204.8	2188.6
32.5°	2002.3	2043.5	2118.2	2113.9	2105.2
35°	1895.1	1921.1	2008.8	2019.7	2012.1
37.5°	1793.3	1817.2	1899.5	1924.4	1917.9
40°	1686.1	1712.1	1777.1	1821.5	1823.7
42.5°	1580.0	1604.9	1658.0	1721.9	1721.9
45°	1467.4	1492.3	1541.0	1611.4	1620.1
47.5°	1356.9	1382.9	1430.6	1500.9	1515.0
50°	1248.6	1272.4	1320.1	1388.3	1410.0
52.5°	1136.0	1162.0	1208.5	1271.4	1302.8
55°	1027.7	1045.0	1095.9	1156.6	1190.1
57.5°	915.1	931.3	988.7	1040.7	1075.3
60°	806.8	827.4	871.8	924.8	964.9
62.5°	702.8	724.5	762.4	808.9	854.4
65°	602.1	618.4	655.2	701.7	741.8
67.5°	504.6	518.7	555.5	588.0	630.3
70°	406.1	424.5	451.6	483.0	510.1
72.5°	327.0	334.6	357.4	380.1	408.3
75°	241.5	254.5	272.9	285.9	302.1
77.5°	173.3	180.8	191.7	202.5	217.7
80°	115.9	119.1	128.9	131.0	142.9
82.5°	70.4	72.6	74.7	75.8	80.1
85°	37.9	37.9	37.9	35.7	35.7
87.5°	21.7	21.7	18.4	15.2	10.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







(END OF REPORT)