

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: P557601

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-93-84-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: P557601
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-40-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

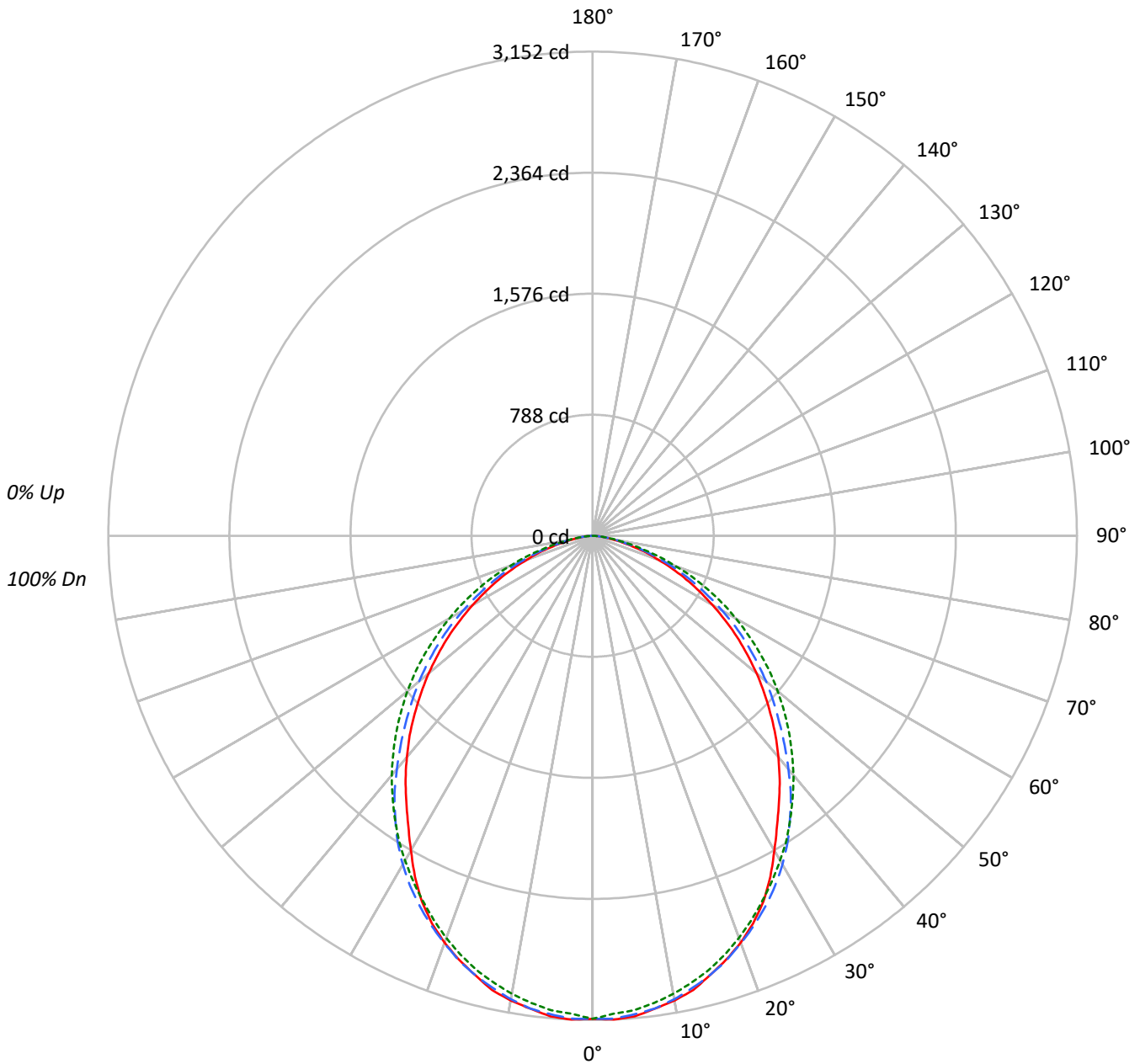
Lumens per Lamp: N/A
Luminaire Lumens: 7270.0 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8461	8461	8461
5°	8483	8447	8376
10°	8393	8370	8274
15°	8244	8244	8150
20°	8070	8080	7976
25°	7804	7901	7775
30°	7349	7679	7585
35°	6944	7361	7372
40°	6607	6963	7145
45°	6229	6541	6877
50°	5830	6164	6584
55°	5378	5735	6228
60°	4843	5233	5792
65°	4276	4653	5268
70°	3564	3963	4476
75°	2801	3165	3504
80°	2002	2227	2470
85°	1306	1306	1232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.0	4.1
10°-20°	831.6	11.4
20°-30°	1215.3	16.7
30°-40°	1379.5	19.0
40°-50°	1331.7	18.3
50°-60°	1098.5	15.1
60°-70°	731.5	10.1
70°-80°	327.4	4.5
80°-90°	58.6	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°	2342.9	32.2
0°-40°	3722.4	51.2
0°-60°	6152.6	84.6
0°-90°	7270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3144	3144	3144	3144	3144	
5°	3140	3139	3127	3110	3101	297
15°	2959	2966	2959	2946	2926	834
25°	2628	2649	2661	2642	2619	1204
35°	2114	2143	2241	2253	2244	1324
45°	1637	1664	1719	1797	1807	1263
55°	1146	1166	1222	1290	1327	1023
65°	672	690	731	783	827	666
75°	269	284	304	319	337	295
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3144.1	3144.1	3144.1	3144.1	3144.1
2.5°	3152.5	3153.8	3146.5	3127.2	3115.1
5°	3140.5	3139.3	3127.2	3110.3	3100.6
7.5°	3105.4	3107.9	3104.2	3080.1	3066.8
10°	3071.6	3072.8	3063.2	3043.8	3028.1
12.5°	3028.1	3026.9	3013.6	3004.0	2978.6
15°	2959.3	2966.5	2959.3	2946.0	2925.5
17.5°	2892.9	2892.9	2897.7	2874.7	2859.0
20°	2818.0	2821.6	2821.6	2803.5	2785.3
22.5°	2731.0	2741.9	2745.5	2726.2	2704.4
25°	2628.3	2648.9	2660.9	2641.6	2618.7
27.5°	2503.9	2535.3	2571.6	2557.1	2531.7
30°	2365.0	2410.9	2471.3	2459.2	2441.1
32.5°	2233.4	2279.3	2362.6	2357.8	2348.1
35°	2113.8	2142.8	2240.6	2252.7	2244.2
37.5°	2000.2	2026.8	2118.6	2146.4	2139.1
40°	1880.7	1909.6	1982.1	2031.6	2034.1
42.5°	1762.3	1790.1	1849.2	1920.5	1920.5
45°	1636.7	1664.4	1718.8	1797.3	1807.0
47.5°	1513.5	1542.5	1595.6	1674.1	1689.8
50°	1392.7	1419.2	1472.4	1548.5	1572.6
52.5°	1267.1	1296.0	1348.0	1418.0	1453.1
55°	1146.3	1165.6	1222.4	1290.0	1327.4
57.5°	1020.7	1038.8	1102.8	1160.8	1199.4
60°	899.9	922.8	972.3	1031.5	1076.2
62.5°	783.9	808.1	850.3	902.3	953.0
65°	671.6	689.7	730.8	782.7	827.4
67.5°	562.9	578.6	619.6	655.9	703.0
70°	453.0	473.5	503.7	538.7	568.9
72.5°	364.8	373.2	398.6	424.0	455.4
75°	269.4	283.8	304.4	318.9	337.0
77.5°	193.3	201.7	213.8	225.9	242.8
80°	129.2	132.9	143.7	146.2	159.4
82.5°	78.5	80.9	83.3	84.6	89.4
85°	42.3	42.3	42.3	39.9	39.9
87.5°	24.2	24.2	20.5	16.9	12.1
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)