

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: P557607

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-93-87-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: P557607
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-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

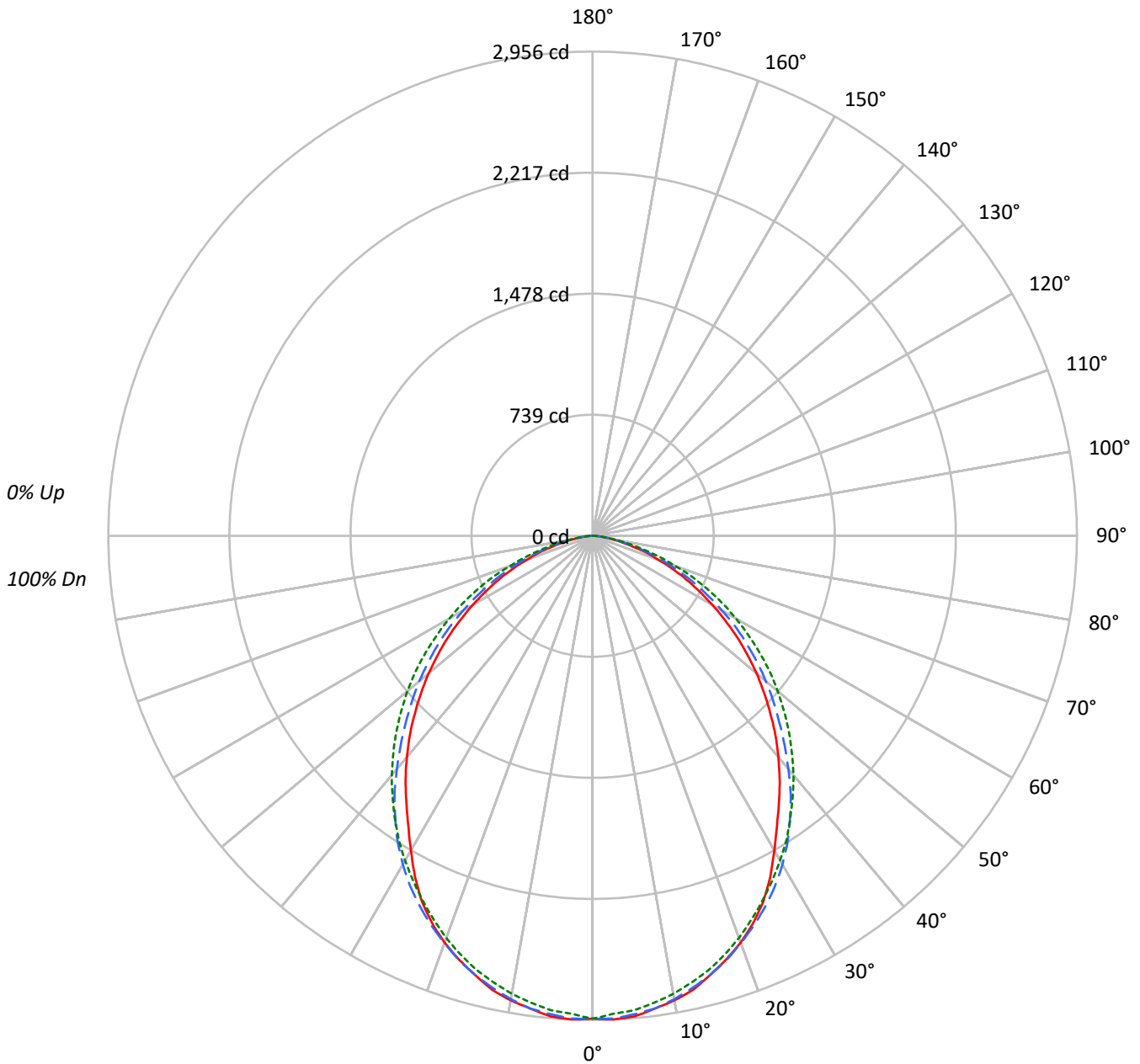
Lumens per Lamp: N/A
Luminaire Lumens: 6817.0 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7934	7934	7934
5°	7955	7921	7854
10°	7870	7849	7759
15°	7731	7731	7642
20°	7567	7577	7479
25°	7318	7408	7291
30°	6891	7200	7113
35°	6511	6902	6913
40°	6195	6529	6700
45°	5840	6134	6448
50°	5467	5780	6174
55°	5043	5377	5840
60°	4541	4907	5431
65°	4010	4363	4940
70°	3341	3716	4198
75°	2626	2967	3285
80°	1878	2089	2317
85°	1223	1223	1155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.6	4.1
10°-20°	779.8	11.4
20°-30°	1139.5	16.7
30°-40°	1293.5	19.0
40°-50°	1248.7	18.3
50°-60°	1030.1	15.1
60°-70°	685.9	10.1
70°-80°	307.0	4.5
80°-90°	54.9	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°	2196.9	32.2
0°-40°	3490.4	51.2
0°-60°	5769.2	84.6
0°-90°	6817.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6817.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2948	2948	2948	2948	2948	
5°	2945	2944	2932	2916	2907	279
15°	2775	2782	2775	2762	2743	782
25°	2465	2484	2495	2477	2456	1129
35°	1982	2009	2101	2112	2104	1242
45°	1535	1561	1612	1685	1694	1184
55°	1075	1093	1146	1210	1245	959
65°	630	647	685	734	776	624
75°	253	266	285	299	316	276
85°	40	40	40	37	37	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2948.2	2948.2	2948.2	2948.2	2948.2
2.5°	2956.1	2957.2	2950.4	2932.3	2921.0
5°	2944.8	2943.6	2932.3	2916.5	2907.4
7.5°	2911.9	2914.2	2910.8	2888.1	2875.7
10°	2880.2	2881.4	2872.3	2854.2	2839.4
12.5°	2839.4	2838.3	2825.9	2816.8	2793.0
15°	2774.9	2781.7	2774.9	2762.4	2743.2
17.5°	2712.6	2712.6	2717.1	2695.6	2680.9
20°	2642.4	2645.8	2645.8	2628.8	2611.8
22.5°	2560.8	2571.0	2574.4	2556.3	2535.9
25°	2464.6	2483.8	2495.1	2477.0	2455.5
27.5°	2347.9	2377.3	2411.3	2397.7	2373.9
30°	2217.6	2260.7	2317.3	2306.0	2289.0
32.5°	2094.2	2137.2	2215.4	2210.8	2201.8
35°	1982.1	2009.2	2101.0	2112.3	2104.4
37.5°	1875.6	1900.5	1986.6	2012.6	2005.8
40°	1763.5	1790.7	1858.6	1905.0	1907.3
42.5°	1652.5	1678.5	1734.0	1800.8	1800.8
45°	1534.7	1560.7	1611.7	1685.3	1694.4
47.5°	1419.2	1446.3	1496.2	1569.8	1584.5
50°	1305.9	1330.8	1380.6	1452.0	1474.7
52.5°	1188.1	1215.3	1264.0	1329.7	1362.5
55°	1074.8	1093.0	1146.2	1209.6	1244.7
57.5°	957.1	974.0	1034.1	1088.4	1124.7
60°	843.8	865.3	911.7	967.2	1009.2
62.5°	735.1	757.7	797.4	846.1	893.6
65°	629.7	646.7	685.2	733.9	775.8
67.5°	527.8	542.5	581.0	615.0	659.2
70°	424.7	444.0	472.3	505.1	533.5
72.5°	342.0	350.0	373.8	397.5	427.0
75°	252.6	266.2	285.4	299.0	316.0
77.5°	181.2	189.1	200.5	211.8	227.7
80°	121.2	124.6	134.8	137.0	149.5
82.5°	73.6	75.9	78.1	79.3	83.8
85°	39.6	39.6	39.6	37.4	37.4
87.5°	22.7	22.7	19.3	15.9	11.3
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)