

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: P557473

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-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: P557473
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-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

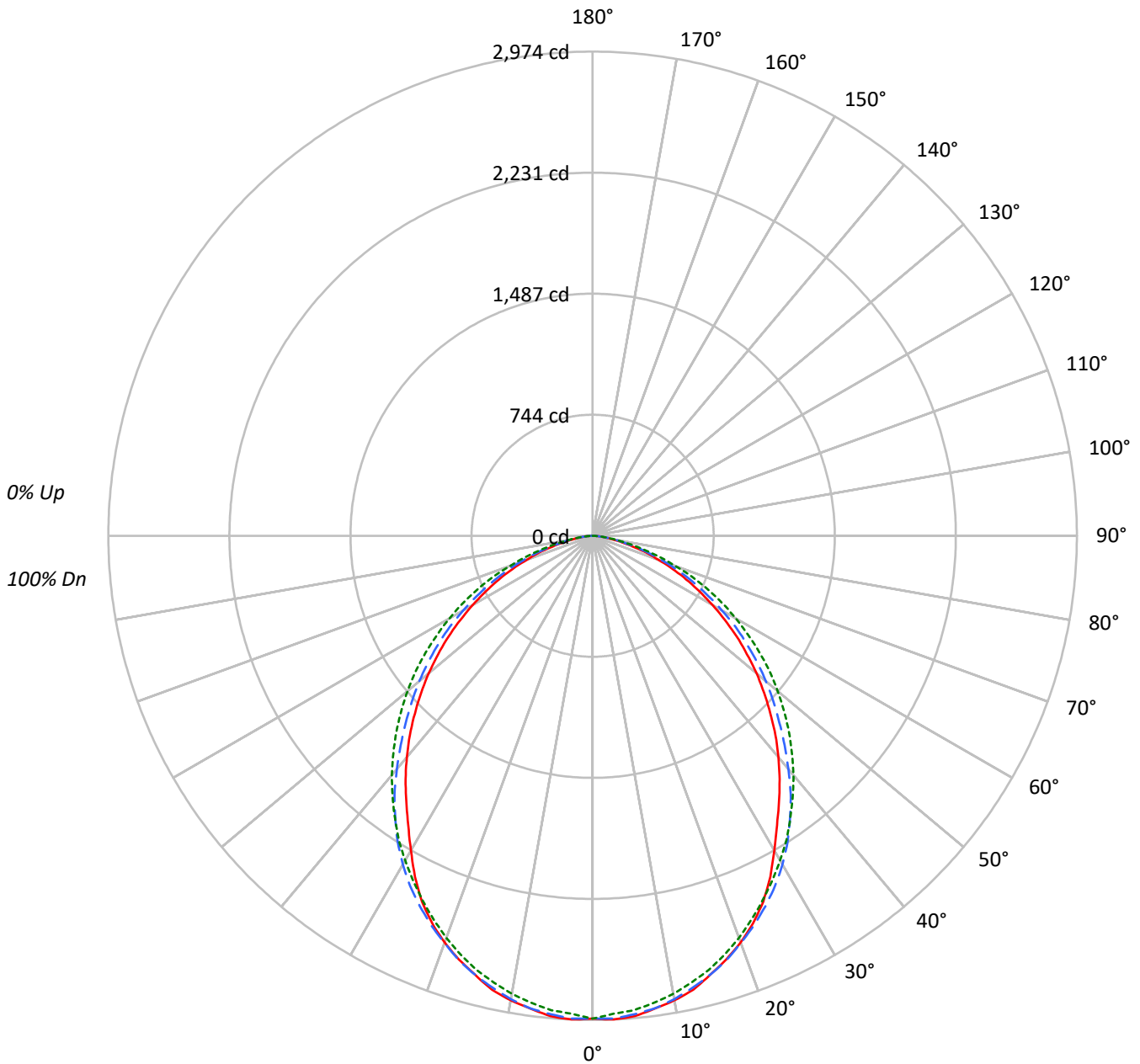
Lumens per Lamp: N/A
Luminaire Lumens: 6858.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7981	7981	7981
5°	8002	7969	7901
10°	7917	7896	7805
15°	7777	7777	7688
20°	7613	7622	7524
25°	7362	7453	7335
30°	6932	7244	7155
35°	6550	6943	6955
40°	6232	6568	6740
45°	5875	6170	6487
50°	5500	5815	6211
55°	5073	5410	5875
60°	4569	4936	5464
65°	4034	4389	4970
70°	3362	3738	4223
75°	2642	2985	3305
80°	1889	2101	2331
85°	1232	1232	1161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.2	4.1
10°-20°	784.5	11.4
20°-30°	1146.4	16.7
30°-40°	1301.3	19.0
40°-50°	1256.2	18.3
50°-60°	1036.3	15.1
60°-70°	690.1	10.1
70°-80°	308.8	4.5
80°-90°	55.3	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°	2210.1	32.2
0°-40°	3511.4	51.2
0°-60°	5803.9	84.6
0°-90°	6858.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6858.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2966	2966	2966	2966	2966	
5°	2962	2961	2950	2934	2925	280
15°	2792	2798	2792	2779	2760	787
25°	2479	2499	2510	2492	2470	1135
35°	1994	2021	2114	2125	2117	1249
45°	1544	1570	1621	1696	1705	1191
55°	1081	1100	1153	1217	1252	965
65°	634	651	689	738	780	628
75°	254	268	287	301	318	278
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2965.9	2965.9	2965.9	2965.9	2965.9
2.5°	2973.9	2975.0	2968.2	2950.0	2938.6
5°	2962.5	2961.4	2950.0	2934.0	2924.9
7.5°	2929.4	2931.7	2928.3	2905.5	2893.0
10°	2897.5	2898.7	2889.6	2871.3	2856.5
12.5°	2856.5	2855.4	2842.9	2833.7	2809.8
15°	2791.6	2798.4	2791.6	2779.0	2759.7
17.5°	2728.9	2728.9	2733.5	2711.8	2697.0
20°	2658.3	2661.7	2661.7	2644.6	2627.5
22.5°	2576.2	2586.5	2589.9	2571.7	2551.2
25°	2479.4	2498.7	2510.1	2491.9	2470.3
27.5°	2362.0	2391.6	2425.8	2412.2	2388.2
30°	2231.0	2274.3	2331.3	2319.9	2302.8
32.5°	2106.8	2150.1	2228.7	2224.1	2215.0
35°	1994.0	2021.3	2113.6	2125.0	2117.0
37.5°	1886.9	1911.9	1998.5	2024.7	2017.9
40°	1774.1	1801.4	1869.8	1916.5	1918.8
42.5°	1662.4	1688.6	1744.5	1811.7	1811.7
45°	1543.9	1570.1	1621.4	1695.5	1704.6
47.5°	1427.7	1455.0	1505.2	1579.2	1594.0
50°	1313.8	1338.8	1389.0	1460.7	1483.5
52.5°	1195.3	1222.6	1271.6	1337.7	1370.7
55°	1081.3	1099.5	1153.1	1216.9	1252.2
57.5°	962.8	979.9	1040.3	1095.0	1131.4
60°	848.9	870.5	917.2	973.1	1015.2
62.5°	739.5	762.3	802.2	851.1	899.0
65°	633.5	650.6	689.3	738.3	780.5
67.5°	531.0	545.8	584.5	618.7	663.1
70°	427.3	446.7	475.1	508.2	536.7
72.5°	344.1	352.1	376.0	399.9	429.6
75°	254.1	267.8	287.1	300.8	317.9
77.5°	182.3	190.3	201.7	213.1	229.0
80°	121.9	125.3	135.6	137.9	150.4
82.5°	74.1	76.3	78.6	79.8	84.3
85°	39.9	39.9	39.9	37.6	37.6
87.5°	22.8	22.8	19.4	16.0	11.4
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)