

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: P558328

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-88-EDD-90**

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: P558328
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-LD4-3STD-40-UNV-80-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

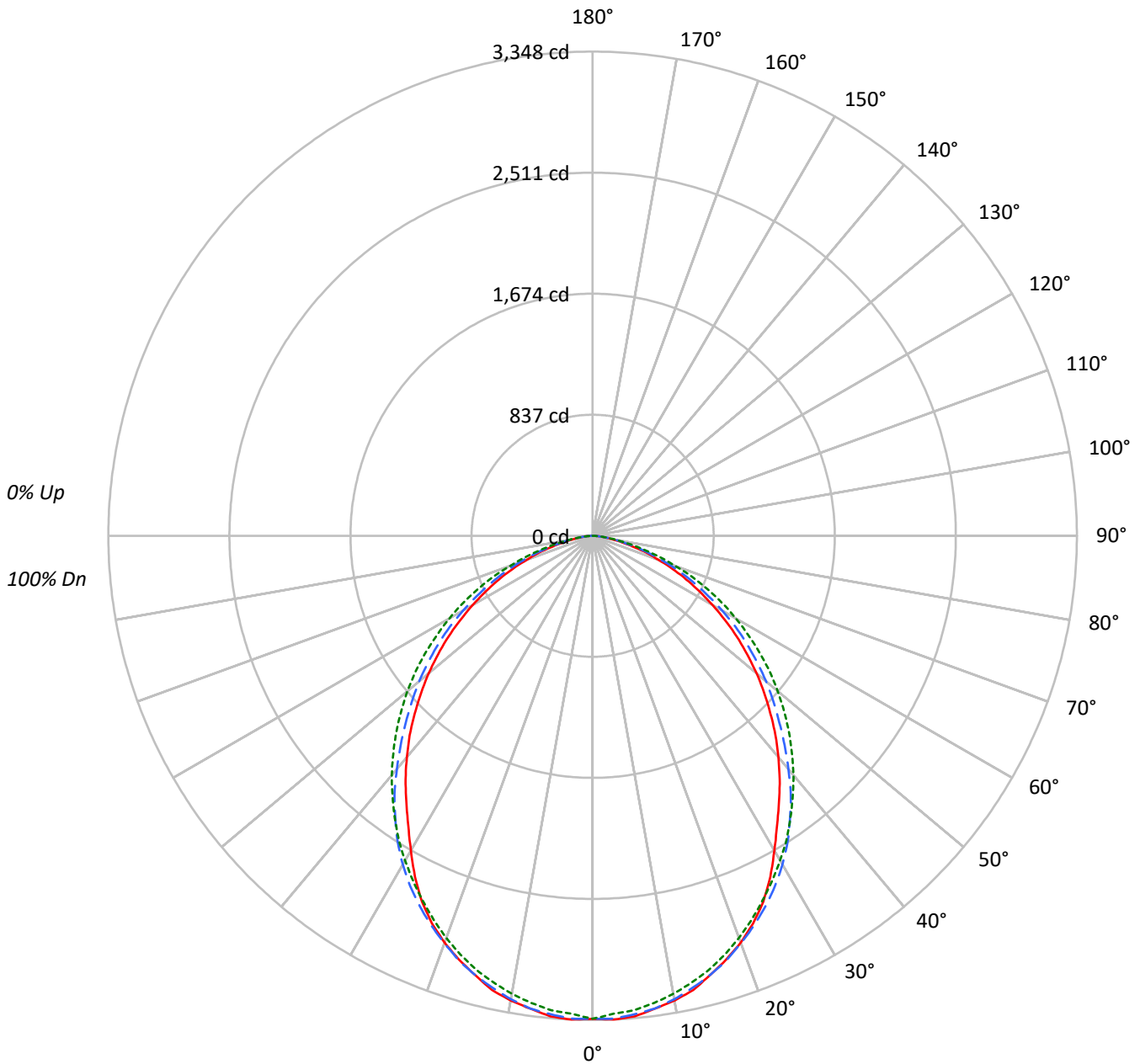
Lumens per Lamp: N/A
Luminaire Lumens: 7722.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (Ain): 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°	8987	8987	8987
5°	9011	8972	8896
10°	8915	8890	8789
15°	8757	8757	8657
20°	8572	8582	8472
25°	8289	8392	8259
30°	7806	8157	8057
35°	7376	7818	7831
40°	7017	7396	7589
45°	6616	6948	7304
50°	6193	6547	6993
55°	5712	6092	6615
60°	5144	5558	6152
65°	4542	4942	5596
70°	3785	4209	4755
75°	2975	3361	3721
80°	2128	2366	2625
85°	1386	1386	1306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.4	4.1
10°-20°	883.3	11.4
20°-30°	1290.8	16.7
30°-40°	1465.2	19.0
40°-50°	1414.5	18.3
50°-60°	1166.8	15.1
60°-70°	777.0	10.1
70°-80°	347.7	4.5
80°-90°	62.2	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°	2488.6	32.2
0°-40°	3953.8	51.2
0°-60°	6535.1	84.6
0°-90°	7722.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7722.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3340	3340	3340	3340	3340	
5°	3336	3334	3322	3304	3293	316
15°	3143	3151	3143	3129	3107	886
25°	2792	2814	2826	2806	2782	1278
35°	2245	2276	2380	2393	2384	1407
45°	1738	1768	1826	1909	1919	1341
55°	1218	1238	1298	1370	1410	1087
65°	713	733	776	831	879	707
75°	286	302	323	339	358	313
85°	45	45	45	42	42	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3339.6	3339.6	3339.6	3339.6	3339.6
2.5°	3348.5	3349.8	3342.1	3321.6	3308.8
5°	3335.7	3334.4	3321.6	3303.6	3293.4
7.5°	3298.5	3301.1	3297.2	3271.6	3257.5
10°	3262.6	3263.9	3253.6	3233.1	3216.4
12.5°	3216.4	3215.1	3201.0	3190.7	3163.8
15°	3143.3	3151.0	3143.3	3129.2	3107.3
17.5°	3072.7	3072.7	3077.8	3053.5	3036.8
20°	2993.2	2997.0	2997.0	2977.8	2958.5
22.5°	2900.8	2912.3	2916.2	2895.7	2872.6
25°	2791.7	2813.5	2826.4	2805.9	2781.5
27.5°	2659.6	2692.9	2731.4	2716.0	2689.1
30°	2512.1	2560.8	2625.0	2612.1	2592.9
32.5°	2372.2	2421.0	2509.5	2504.4	2494.1
35°	2245.2	2276.0	2379.9	2392.7	2383.8
37.5°	2124.6	2152.8	2250.3	2279.8	2272.1
40°	1997.6	2028.4	2105.4	2158.0	2160.5
42.5°	1871.9	1901.4	1964.2	2039.9	2039.9
45°	1738.4	1767.9	1825.7	1909.1	1919.3
47.5°	1607.6	1638.4	1694.8	1778.2	1794.9
50°	1479.3	1507.5	1563.9	1644.8	1670.4
52.5°	1345.8	1376.6	1431.8	1506.2	1543.4
55°	1217.5	1238.1	1298.4	1370.2	1410.0
57.5°	1084.1	1103.4	1171.3	1232.9	1274.0
60°	955.8	980.2	1032.8	1095.7	1143.1
62.5°	832.6	858.3	903.2	958.4	1012.3
65°	713.3	732.6	776.2	831.4	878.8
67.5°	597.9	614.5	658.2	696.7	746.7
70°	481.1	502.9	535.0	572.2	604.3
72.5°	387.5	396.4	423.4	450.3	483.7
75°	286.1	301.5	323.3	338.7	357.9
77.5°	205.3	214.3	227.1	239.9	257.9
80°	137.3	141.1	152.7	155.2	169.4
82.5°	83.4	86.0	88.5	89.8	94.9
85°	44.9	44.9	44.9	42.3	42.3
87.5°	25.7	25.7	21.8	18.0	12.8
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)