

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: P556990

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-80-97-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: P556990
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-LD4-2HI-35-UNV-80-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

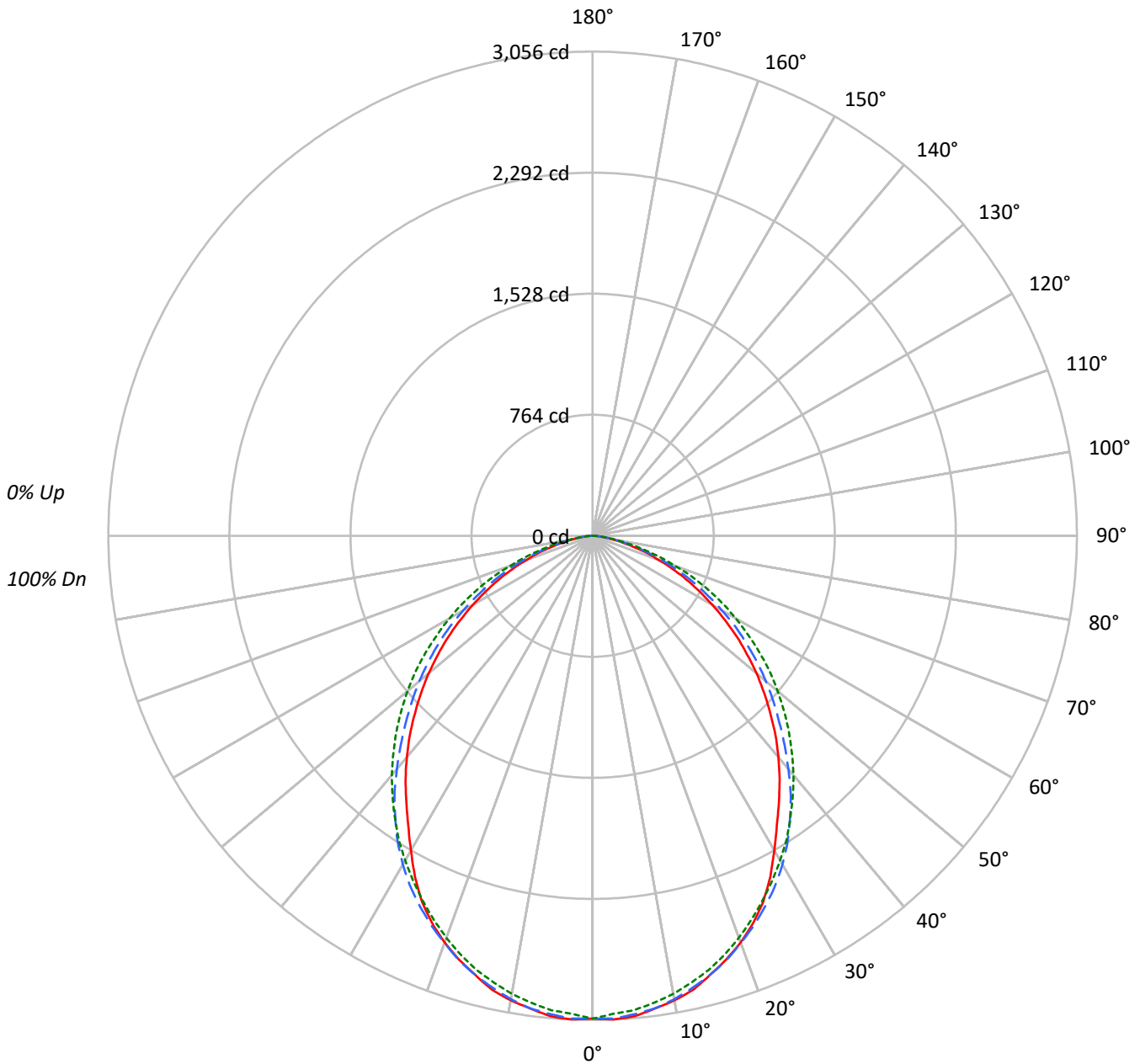
Lumens per Lamp: N/A
Luminaire Lumens: 7047.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8201	8201	8201
5°	8223	8188	8119
10°	8136	8113	8020
15°	7991	7991	7900
20°	7822	7832	7732
25°	7565	7658	7537
30°	7123	7443	7352
35°	6731	7135	7146
40°	6404	6749	6926
45°	6038	6341	6666
50°	5652	5975	6382
55°	5213	5559	6037
60°	4695	5072	5614
65°	4145	4510	5107
70°	3455	3841	4339
75°	2715	3067	3397
80°	1942	2159	2394
85°	1266	1266	1192



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.9	4.1
10°-20°	806.1	11.4
20°-30°	1178.0	16.7
30°-40°	1337.1	19.0
40°-50°	1290.8	18.3
50°-60°	1064.8	15.1
60°-70°	709.1	10.1
70°-80°	317.3	4.5
80°-90°	56.8	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°	2271.0	32.2
0°-40°	3608.2	51.2
0°-60°	5963.8	84.6
0°-90°	7047.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7047.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3048	3048	3048	3048	3048	
5°	3044	3043	3031	3015	3006	288
15°	2868	2876	2868	2856	2836	809
25°	2548	2568	2579	2561	2538	1167
35°	2049	2077	2172	2184	2175	1284
45°	1586	1613	1666	1742	1752	1224
55°	1111	1130	1185	1250	1287	992
65°	651	668	708	759	802	646
75°	261	275	295	309	327	285
85°	41	41	41	39	39	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3047.6	3047.6	3047.6	3047.6	3047.6
2.5°	3055.8	3057.0	3050.0	3031.3	3019.5
5°	3044.1	3043.0	3031.3	3014.9	3005.5
7.5°	3010.2	3012.5	3009.0	2985.6	2972.7
10°	2977.4	2978.6	2969.2	2950.5	2935.2
12.5°	2935.2	2934.1	2921.2	2911.8	2887.2
15°	2868.5	2875.5	2868.5	2855.6	2835.7
17.5°	2804.1	2804.1	2808.8	2786.6	2771.3
20°	2731.5	2735.0	2735.0	2717.5	2699.9
22.5°	2647.2	2657.8	2661.3	2642.5	2621.5
25°	2547.7	2567.6	2579.3	2560.6	2538.3
27.5°	2427.1	2457.6	2492.7	2478.6	2454.0
30°	2292.5	2337.0	2395.5	2383.8	2366.2
32.5°	2164.8	2209.3	2290.1	2285.4	2276.1
35°	2048.9	2077.0	2171.9	2183.6	2175.4
37.5°	1938.9	1964.6	2053.6	2080.5	2073.5
40°	1823.0	1851.1	1921.3	1969.3	1971.7
42.5°	1708.2	1735.2	1792.5	1861.6	1861.6
45°	1586.5	1613.4	1666.1	1742.2	1751.5
47.5°	1467.0	1495.1	1546.7	1622.8	1638.0
50°	1350.0	1375.7	1427.2	1501.0	1524.4
52.5°	1228.2	1256.3	1306.6	1374.5	1408.5
55°	1111.1	1129.8	1184.9	1250.4	1286.7
57.5°	989.3	1006.9	1069.0	1125.2	1162.6
60°	872.3	894.5	942.5	999.9	1043.2
62.5°	759.9	783.3	824.3	874.6	923.8
65°	651.0	668.5	708.3	758.7	802.0
67.5°	545.6	560.8	600.6	635.8	681.4
70°	439.1	459.0	488.2	522.2	551.5
72.5°	353.6	361.8	386.4	411.0	441.4
75°	261.1	275.1	295.0	309.1	326.7
77.5°	187.3	195.5	207.2	218.9	235.3
80°	125.3	128.8	139.3	141.7	154.5
82.5°	76.1	78.4	80.8	82.0	86.6
85°	41.0	41.0	41.0	38.6	38.6
87.5°	23.4	23.4	19.9	16.4	11.7
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)