

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: P557605

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-93-86-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: P557605
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-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

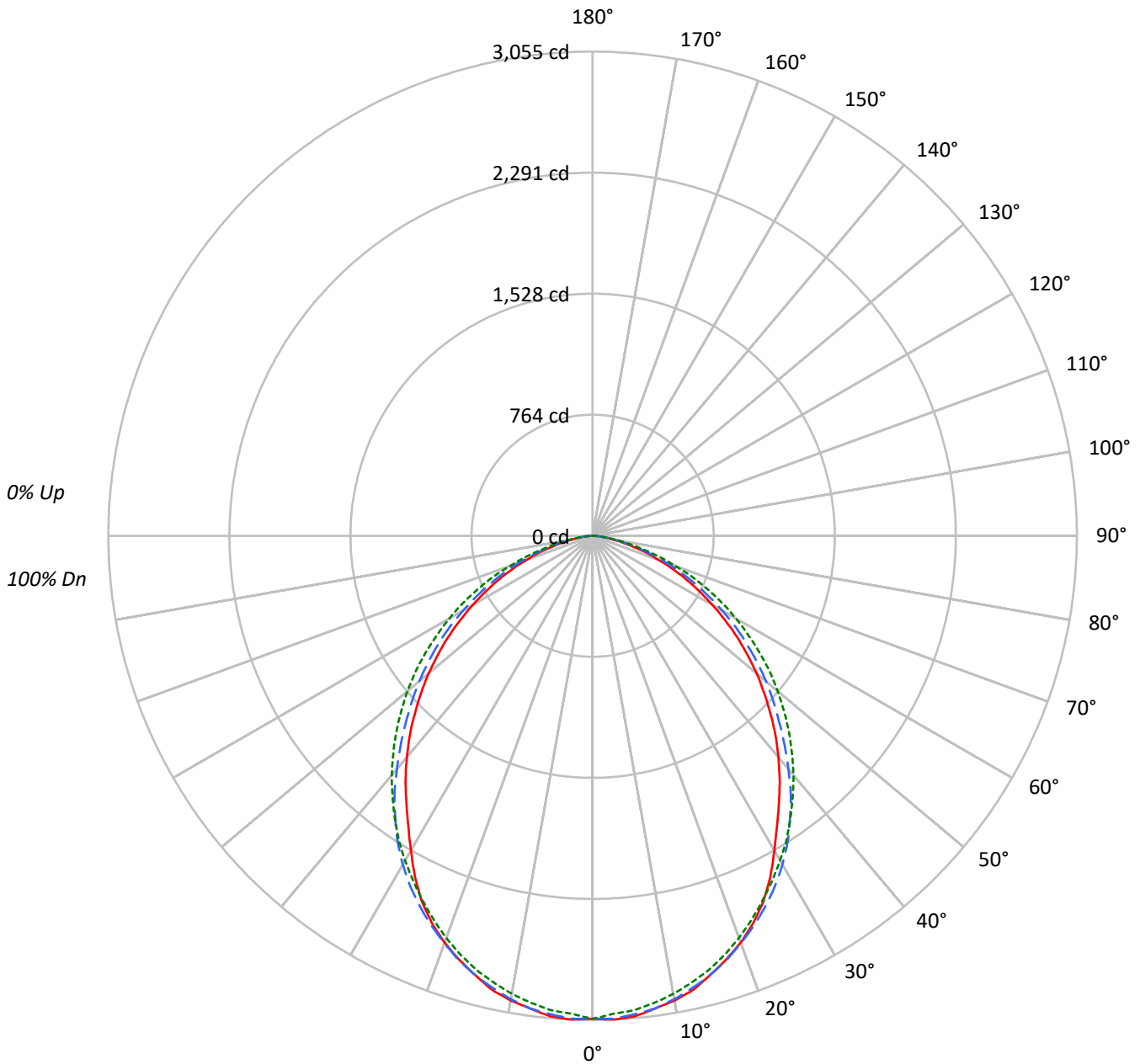
Lumens per Lamp: N/A
Luminaire Lumens: 7046.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8200	8200	8200
5°	8222	8187	8118
10°	8135	8112	8019
15°	7990	7990	7899
20°	7821	7831	7731
25°	7563	7657	7536
30°	7122	7443	7352
35°	6730	7134	7145
40°	6403	6748	6925
45°	6036	6339	6665
50°	5651	5974	6381
55°	5212	5558	6036
60°	4694	5072	5614
65°	4145	4509	5106
70°	3454	3841	4338
75°	2715	3067	3396
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°	806.0	11.4
20°-30°	1177.8	16.7
30°-40°	1337.0	19.0
40°-50°	1290.6	18.3
50°-60°	1064.7	15.1
60°-70°	709.0	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°	2270.7	32.2
0°-40°	3607.7	51.2
0°-60°	5963.0	84.6
0°-90°	7046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7046.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3047	3047	3047	3047	3047	
5°	3044	3042	3031	3014	3005	288
15°	2868	2875	2868	2855	2835	809
25°	2547	2567	2579	2560	2538	1167
35°	2049	2077	2172	2183	2175	1284
45°	1586	1613	1666	1742	1751	1224
55°	1111	1130	1185	1250	1286	992
65°	651	668	708	759	802	645
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°	3047.2	3047.2	3047.2	3047.2	3047.2
2.5°	3055.4	3056.6	3049.6	3030.8	3019.1
5°	3043.7	3042.5	3030.8	3014.4	3005.1
7.5°	3009.8	3012.1	3008.6	2985.2	2972.3
10°	2977.0	2978.1	2968.8	2950.0	2934.8
12.5°	2934.8	2933.7	2920.8	2911.4	2886.8
15°	2868.1	2875.1	2868.1	2855.2	2835.3
17.5°	2803.7	2803.7	2808.4	2786.2	2770.9
20°	2731.1	2734.6	2734.6	2717.1	2699.5
22.5°	2646.8	2657.4	2660.9	2642.2	2621.1
25°	2547.3	2567.2	2579.0	2560.2	2538.0
27.5°	2426.8	2457.2	2492.3	2478.3	2453.7
30°	2292.1	2336.6	2395.2	2383.5	2365.9
32.5°	2164.5	2209.0	2289.8	2285.1	2275.8
35°	2048.6	2076.7	2171.6	2183.3	2175.1
37.5°	1938.6	1964.4	2053.3	2080.3	2073.2
40°	1822.7	1850.8	1921.0	1969.0	1971.4
42.5°	1708.0	1734.9	1792.3	1861.3	1861.3
45°	1586.2	1613.2	1665.8	1741.9	1751.3
47.5°	1466.8	1494.9	1546.4	1622.5	1637.7
50°	1349.8	1375.5	1427.0	1500.8	1524.2
52.5°	1228.0	1256.1	1306.5	1374.3	1408.3
55°	1111.0	1129.7	1184.7	1250.3	1286.5
57.5°	989.2	1006.8	1068.8	1125.0	1162.5
60°	872.1	894.4	942.4	999.7	1043.1
62.5°	759.8	783.2	824.1	874.5	923.6
65°	650.9	668.4	708.2	758.6	801.9
67.5°	545.5	560.7	600.5	635.7	681.3
70°	439.0	458.9	488.2	522.1	551.4
72.5°	353.5	361.7	386.3	410.9	441.3
75°	261.1	275.1	295.0	309.1	326.6
77.5°	187.3	195.5	207.2	218.9	235.3
80°	125.3	128.8	139.3	141.6	154.5
82.5°	76.1	78.4	80.8	81.9	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)