

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: P557539

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-93-85-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: P557539
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-35-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

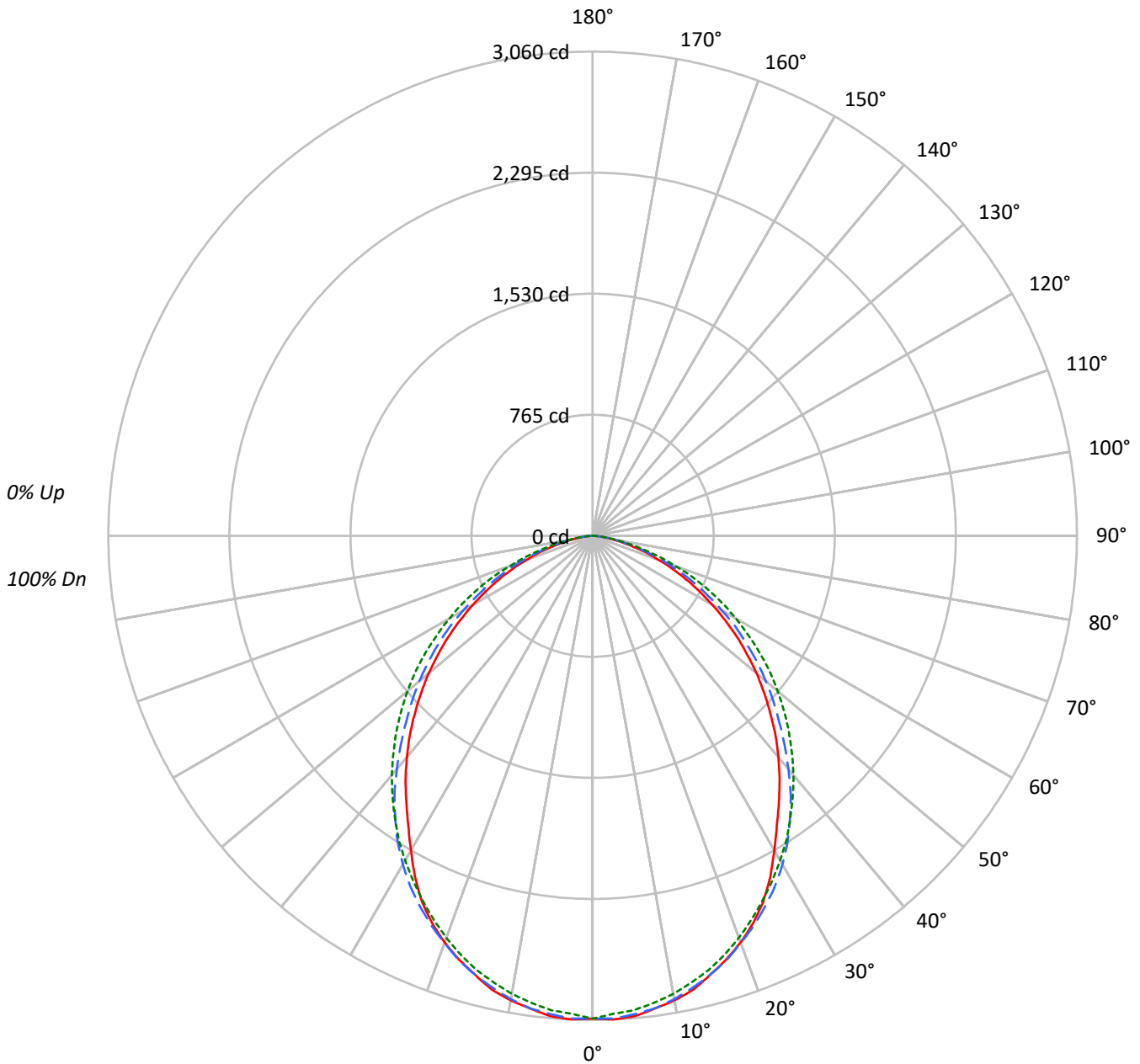
Lumens per Lamp: N/A
Luminaire Lumens: 7056.0 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8212	8212	8212
5°	8233	8199	8129
10°	8146	8124	8031
15°	8002	8002	7910
20°	7832	7842	7742
25°	7574	7668	7546
30°	7132	7453	7362
35°	6740	7144	7156
40°	6412	6758	6935
45°	6045	6349	6674
50°	5659	5983	6390
55°	5219	5566	6045
60°	4701	5079	5621
65°	4150	4516	5113
70°	3459	3847	4345
75°	2718	3071	3401
80°	1943	2162	2397
85°	1266	1266	1195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.3	4.1
10°-20°	807.1	11.4
20°-30°	1179.5	16.7
30°-40°	1338.9	19.0
40°-50°	1292.5	18.3
50°-60°	1066.2	15.1
60°-70°	710.0	10.1
70°-80°	317.7	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°	2273.9	32.2
0°-40°	3612.8	51.2
0°-60°	5971.5	84.6
0°-90°	7056.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7056.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3052	3052	3052	3052	3052	
5°	3048	3047	3035	3019	3009	288
15°	2872	2879	2872	2859	2839	810
25°	2551	2571	2583	2564	2542	1168
35°	2052	2080	2175	2186	2178	1285
45°	1588	1616	1668	1744	1754	1226
55°	1112	1131	1186	1252	1288	993
65°	652	669	709	760	803	646
75°	261	276	295	310	327	286
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°	3051.5	3051.5	3051.5	3051.5	3051.5
2.5°	3059.7	3060.9	3053.9	3035.1	3023.4
5°	3048.0	3046.8	3035.1	3018.7	3009.3
7.5°	3014.0	3016.4	3012.9	2989.4	2976.5
10°	2981.2	2982.4	2973.0	2954.2	2939.0
12.5°	2939.0	2937.8	2924.9	2915.5	2890.9
15°	2872.2	2879.2	2872.2	2859.3	2839.3
17.5°	2807.7	2807.7	2812.4	2790.1	2774.9
20°	2735.0	2738.5	2738.5	2720.9	2703.4
22.5°	2650.6	2661.2	2664.7	2645.9	2624.8
25°	2551.0	2570.9	2582.6	2563.9	2541.6
27.5°	2430.2	2460.7	2495.9	2481.8	2457.2
30°	2295.4	2339.9	2398.6	2386.8	2369.3
32.5°	2167.6	2212.2	2293.0	2288.4	2279.0
35°	2051.6	2079.7	2174.6	2186.4	2178.2
37.5°	1941.4	1967.1	2056.2	2083.2	2076.2
40°	1825.3	1853.4	1923.8	1971.8	1974.2
42.5°	1710.4	1737.4	1794.8	1864.0	1864.0
45°	1588.5	1615.5	1668.2	1744.4	1753.8
47.5°	1468.9	1497.0	1548.6	1624.8	1640.1
50°	1351.7	1377.5	1429.1	1502.9	1526.4
52.5°	1229.8	1257.9	1308.3	1376.3	1410.3
55°	1112.5	1131.3	1186.4	1252.0	1288.4
57.5°	990.6	1008.2	1070.3	1126.6	1164.1
60°	873.4	895.6	943.7	1001.2	1044.5
62.5°	760.8	784.3	825.3	875.7	925.0
65°	651.8	669.4	709.3	759.7	803.0
67.5°	546.3	561.5	601.4	636.6	682.3
70°	439.6	459.5	488.9	522.9	552.2
72.5°	354.0	362.2	386.9	411.5	442.0
75°	261.4	275.5	295.4	309.5	327.1
77.5°	187.6	195.8	207.5	219.2	235.6
80°	125.4	129.0	139.5	141.9	154.7
82.5°	76.2	78.5	80.9	82.1	86.8
85°	41.0	41.0	41.0	38.7	38.7
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)