

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: P557666

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-93-85-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: P557666
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-50-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

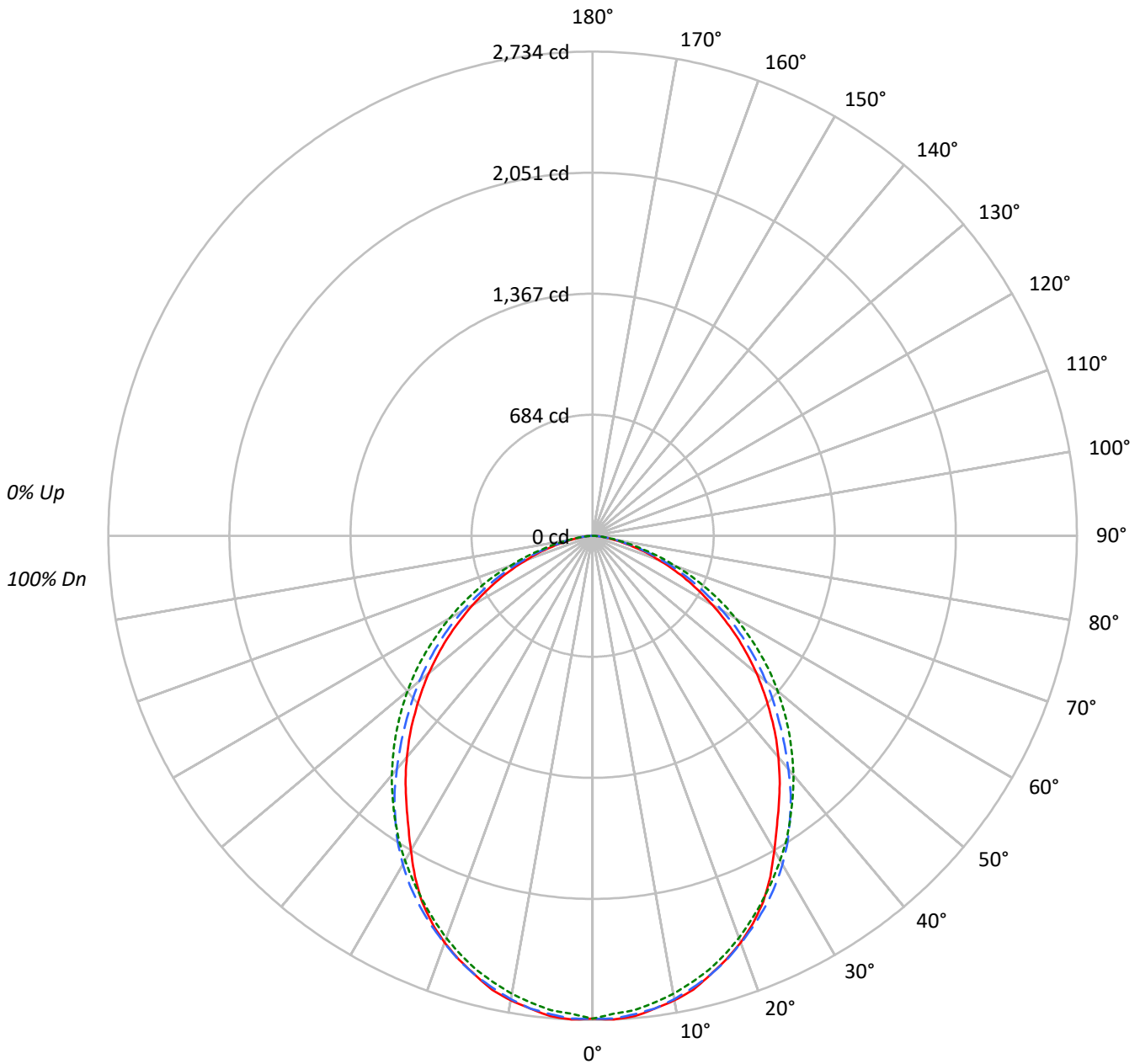
Lumens per Lamp: N/A
Luminaire Lumens: 6305.0 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7337	7337	7337
5°	7357	7326	7264
10°	7279	7259	7176
15°	7150	7150	7068
20°	6999	7008	6918
25°	6768	6852	6743
30°	6373	6660	6578
35°	6022	6384	6394
40°	5729	6039	6197
45°	5402	5673	5964
50°	5056	5346	5710
55°	4664	4974	5401
60°	4200	4539	5024
65°	3708	4036	4569
70°	3091	3437	3882
75°	2429	2745	3039
80°	1737	1932	2143
85°	1133	1133	1068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.7	4.1
10°-20°	721.2	11.4
20°-30°	1054.0	16.7
30°-40°	1196.4	19.0
40°-50°	1154.9	18.3
50°-60°	952.7	15.1
60°-70°	634.4	10.1
70°-80°	283.9	4.5
80°-90°	50.8	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°	2031.9	32.2
0°-40°	3228.3	51.2
0°-60°	5335.9	84.6
0°-90°	6305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6305.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2727	2727	2727	2727	2727	
5°	2724	2723	2712	2697	2689	258
15°	2566	2573	2566	2555	2537	724
25°	2279	2297	2308	2291	2271	1044
35°	1833	1858	1943	1954	1946	1149
45°	1419	1444	1491	1559	1567	1095
55°	994	1011	1060	1119	1151	887
65°	582	598	634	679	718	578
75°	234	246	264	277	292	255
85°	37	37	37	35	35	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2726.7	2726.7	2726.7	2726.7	2726.7
2.5°	2734.1	2735.1	2728.8	2712.1	2701.6
5°	2723.6	2722.6	2712.1	2697.4	2689.0
7.5°	2693.2	2695.3	2692.2	2671.2	2659.7
10°	2663.9	2664.9	2656.6	2639.8	2626.2
12.5°	2626.2	2625.1	2613.6	2605.2	2583.2
15°	2566.5	2572.8	2566.5	2555.0	2537.1
17.5°	2508.9	2508.9	2513.1	2493.1	2479.5
20°	2443.9	2447.1	2447.1	2431.3	2415.6
22.5°	2368.5	2377.9	2381.1	2364.3	2345.4
25°	2279.4	2297.3	2307.7	2291.0	2271.1
27.5°	2171.6	2198.8	2230.2	2217.6	2195.6
30°	2051.1	2090.9	2143.3	2132.8	2117.1
32.5°	1936.9	1976.7	2049.0	2044.8	2036.4
35°	1833.2	1858.3	1943.2	1953.7	1946.3
37.5°	1734.7	1757.8	1837.4	1861.5	1855.2
40°	1631.0	1656.2	1719.0	1762.0	1764.1
42.5°	1528.4	1552.5	1603.8	1665.6	1665.6
45°	1419.4	1443.5	1490.7	1558.7	1567.1
47.5°	1312.6	1337.7	1383.8	1451.9	1465.5
50°	1207.8	1230.9	1277.0	1342.9	1363.9
52.5°	1098.9	1124.0	1169.1	1229.8	1260.2
55°	994.1	1010.9	1060.1	1118.8	1151.2
57.5°	885.2	900.9	956.4	1006.7	1040.2
60°	780.4	800.3	843.3	894.6	933.4
62.5°	679.9	700.8	737.5	782.5	826.5
65°	582.4	598.1	633.8	678.8	717.6
67.5°	488.2	501.8	537.4	568.8	609.7
70°	392.8	410.6	436.8	467.2	493.4
72.5°	316.4	323.7	345.7	367.7	394.9
75°	233.6	246.2	264.0	276.6	292.3
77.5°	167.6	174.9	185.4	195.9	210.6
80°	112.1	115.2	124.7	126.8	138.3
82.5°	68.1	70.2	72.3	73.3	77.5
85°	36.7	36.7	36.7	34.6	34.6
87.5°	21.0	21.0	17.8	14.7	10.5
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)