

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: P558382

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-93-97-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: P558382
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

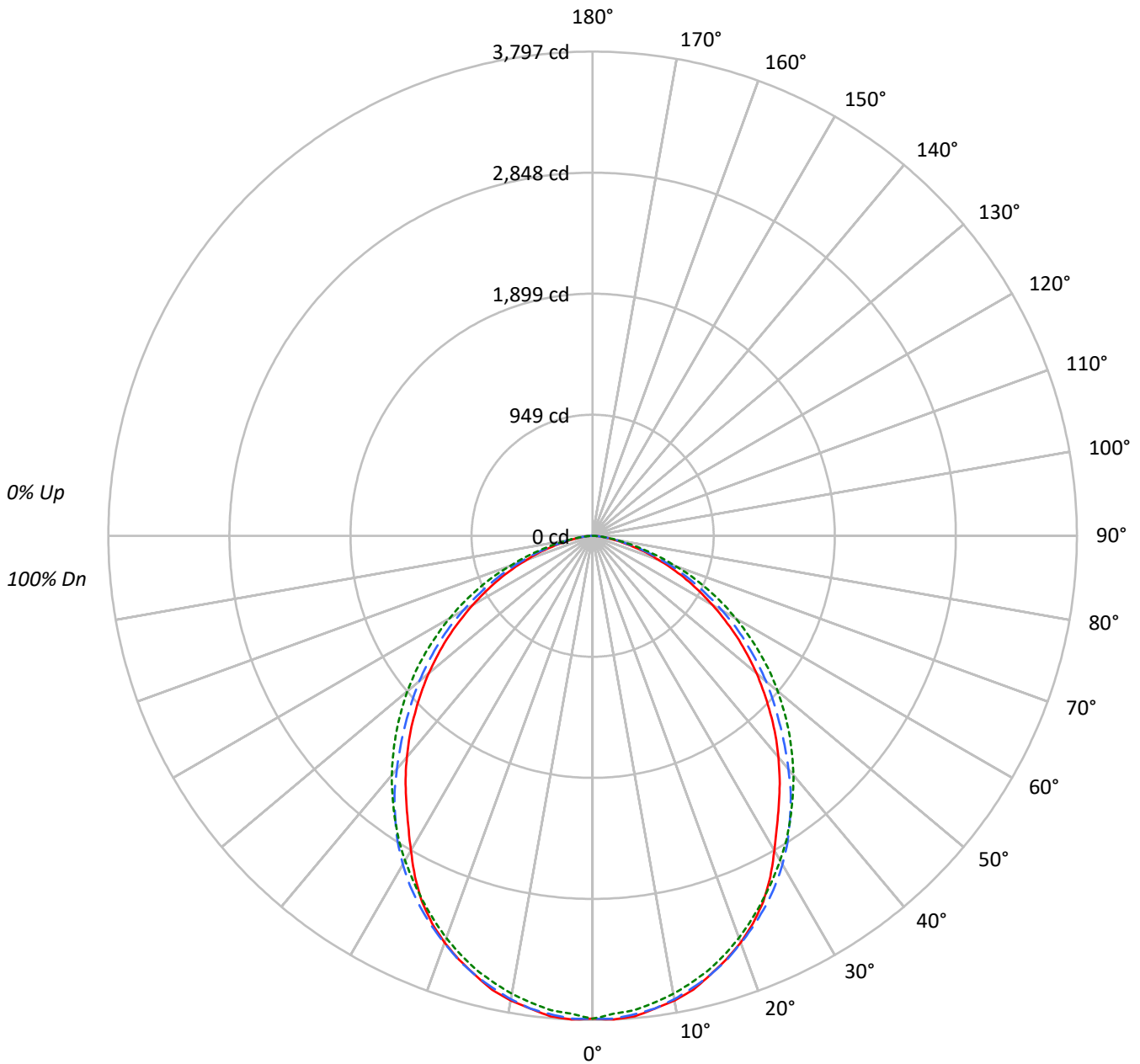
Lumens per Lamp: N/A
Luminaire Lumens: 8757.0 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10191	10191	10191
5°	10218	10175	10089
10°	10110	10082	9967
15°	9931	9931	9817
20°	9720	9733	9608
25°	9400	9517	9366
30°	8852	9250	9137
35°	8364	8866	8881
40°	7958	8387	8607
45°	7502	7879	8283
50°	7023	7425	7930
55°	6478	6908	7502
60°	5834	6303	6977
65°	5151	5605	6346
70°	4293	4773	5392
75°	3373	3812	4220
80°	2413	2682	2977
85°	1572	1572	1482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.6	4.1
10°-20°	1001.7	11.4
20°-30°	1463.8	16.7
30°-40°	1661.6	19.0
40°-50°	1604.0	18.3
50°-60°	1323.2	15.1
60°-70°	881.1	10.1
70°-80°	394.3	4.5
80°-90°	70.5	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°	2822.1	32.2
0°-40°	4483.7	51.2
0°-60°	7411.0	84.6
0°-90°	8757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3787	3787	3787	3787	3787	
5°	3783	3781	3767	3746	3735	358
15°	3565	3573	3565	3549	3524	1005
25°	3166	3191	3205	3182	3154	1450
35°	2546	2581	2699	2713	2703	1595
45°	1971	2005	2070	2165	2177	1521
55°	1381	1404	1472	1554	1599	1232
65°	809	831	880	943	997	802
75°	324	342	367	384	406	355
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3787.2	3787.2	3787.2	3787.2	3787.2
2.5°	3797.4	3798.8	3790.1	3766.8	3752.3
5°	3782.8	3781.4	3766.8	3746.4	3734.8
7.5°	3740.6	3743.5	3739.2	3710.1	3694.1
10°	3699.9	3701.3	3689.7	3666.4	3647.5
12.5°	3647.5	3646.0	3630.0	3618.4	3587.9
15°	3564.6	3573.3	3564.6	3548.6	3523.8
17.5°	3484.6	3484.6	3490.4	3462.7	3443.8
20°	3394.3	3398.7	3398.7	3376.9	3355.1
22.5°	3289.6	3302.7	3307.1	3283.8	3257.6
25°	3165.9	3190.7	3205.2	3181.9	3154.3
27.5°	3016.1	3053.9	3097.5	3080.1	3049.5
30°	2848.7	2904.0	2976.8	2962.2	2940.4
32.5°	2690.2	2745.4	2845.8	2840.0	2828.4
35°	2546.1	2581.0	2698.9	2713.4	2703.3
37.5°	2409.4	2441.4	2551.9	2585.4	2576.7
40°	2265.3	2300.2	2387.5	2447.2	2450.1
42.5°	2122.7	2156.2	2227.5	2313.3	2313.3
45°	1971.4	2004.9	2070.4	2164.9	2176.6
47.5°	1823.0	1857.9	1922.0	2016.5	2035.4
50°	1677.5	1709.5	1773.6	1865.2	1894.3
52.5°	1526.2	1561.1	1623.7	1708.1	1750.3
55°	1380.7	1404.0	1472.4	1553.9	1599.0
57.5°	1229.4	1251.2	1328.3	1398.2	1444.7
60°	1083.9	1111.6	1171.2	1242.5	1296.3
62.5°	944.2	973.3	1024.3	1086.8	1147.9
65°	808.9	830.8	880.2	942.8	996.6
67.5°	678.0	696.9	746.4	790.0	846.8
70°	545.6	570.3	606.7	648.9	685.3
72.5°	439.4	449.6	480.1	510.7	548.5
75°	324.4	341.9	366.6	384.1	405.9
77.5°	232.8	243.0	257.5	272.1	292.4
80°	155.7	160.0	173.1	176.0	192.1
82.5°	94.6	97.5	100.4	101.8	107.7
85°	50.9	50.9	50.9	48.0	48.0
87.5°	29.1	29.1	24.7	20.4	14.5
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)