

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: P556867

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-85-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: P556867
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-LD4-1STD-50-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

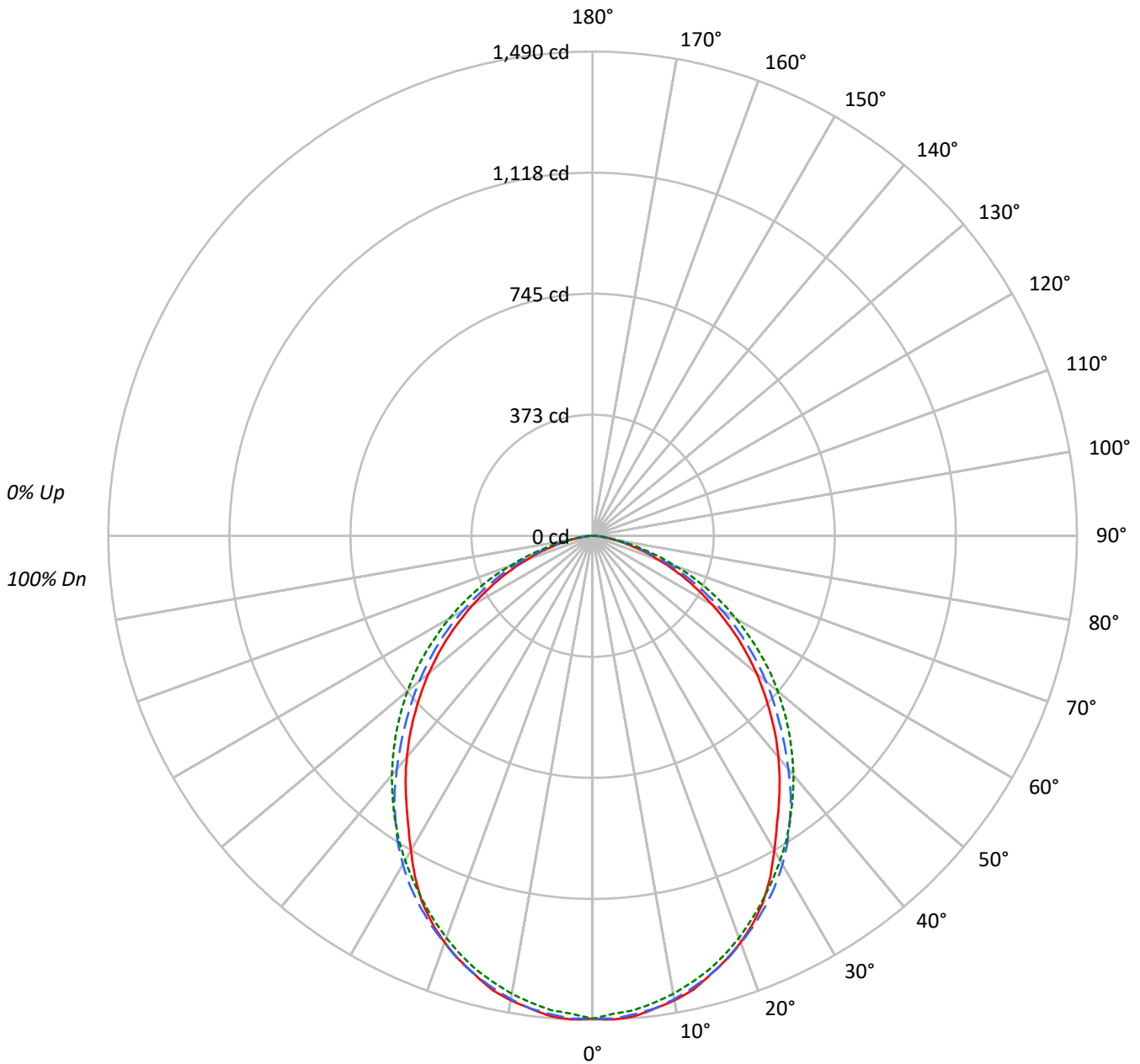
Lumens per Lamp: N/A
Luminaire Lumens: 3436.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P556867

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-81-85-EDD

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°	3999	3999	3999
5°	4009	3992	3958
10°	3967	3956	3911
15°	3896	3896	3852
20°	3814	3819	3770
25°	3688	3734	3675
30°	3473	3629	3585
35°	3282	3479	3484
40°	3122	3291	3377
45°	2944	3092	3250
50°	2756	2913	3112
55°	2542	2710	2943
60°	2289	2474	2737
65°	2021	2199	2490
70°	1685	1873	2116
75°	1324	1496	1656
80°	947	1052	1168
85°	618	618	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.9	4.1
10°-20°	393.0	11.4
20°-30°	574.4	16.7
30°-40°	652.0	19.0
40°-50°	629.4	18.3
50°-60°	519.2	15.1
60°-70°	345.7	10.1
70°-80°	154.7	4.5
80°-90°	27.7	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°	1107.3	32.2
0°-40°	1759.3	51.2
0°-60°	2907.9	84.6
0°-90°	3436.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3436.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1484	1484	1478	1470	1465	140
15°	1399	1402	1399	1392	1383	394
25°	1242	1252	1258	1248	1238	569
35°	999	1013	1059	1065	1061	626
45°	774	787	812	850	854	597
55°	542	551	578	610	627	484
65°	317	326	345	370	391	315
75°	127	134	144	151	159	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1486.0	1486.0	1486.0	1486.0	1486.0
2.5°	1490.0	1490.5	1487.1	1478.0	1472.3
5°	1484.3	1483.7	1478.0	1470.0	1465.4
7.5°	1467.7	1468.9	1467.1	1455.7	1449.4
10°	1451.7	1452.3	1447.7	1438.6	1431.2
12.5°	1431.2	1430.6	1424.3	1419.8	1407.8
15°	1398.6	1402.1	1398.6	1392.4	1382.7
17.5°	1367.2	1367.2	1369.5	1358.7	1351.3
20°	1331.8	1333.6	1333.6	1325.0	1316.4
22.5°	1290.7	1295.9	1297.6	1288.5	1278.2
25°	1242.2	1251.9	1257.6	1248.5	1237.7
27.5°	1183.4	1198.3	1215.4	1208.5	1196.5
30°	1117.8	1139.5	1168.0	1162.3	1153.7
32.5°	1055.5	1077.2	1116.6	1114.3	1109.8
35°	999.0	1012.7	1059.0	1064.7	1060.7
37.5°	945.4	957.9	1001.3	1014.4	1011.0
40°	888.8	902.5	936.8	960.2	961.3
42.5°	832.9	846.0	874.0	907.7	907.7
45°	773.5	786.7	812.4	849.5	854.0
47.5°	715.3	729.0	754.1	791.2	798.7
50°	658.2	670.8	695.9	731.9	743.3
52.5°	598.8	612.5	637.1	670.2	686.8
55°	541.8	550.9	577.7	609.7	627.4
57.5°	482.4	491.0	521.2	548.6	566.9
60°	425.3	436.1	459.6	487.5	508.6
62.5°	370.5	381.9	401.9	426.4	450.4
65°	317.4	326.0	345.4	369.9	391.0
67.5°	266.0	273.4	292.9	310.0	332.2
70°	214.1	223.8	238.1	254.6	268.9
72.5°	172.4	176.4	188.4	200.4	215.2
75°	127.3	134.2	143.9	150.7	159.3
77.5°	91.3	95.3	101.0	106.8	114.7
80°	61.1	62.8	67.9	69.1	75.4
82.5°	37.1	38.2	39.4	40.0	42.2
85°	20.0	20.0	20.0	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)