

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: P556064

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-84-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: P556064
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-12-2-LD4-3STD-40-UNV-93-84-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

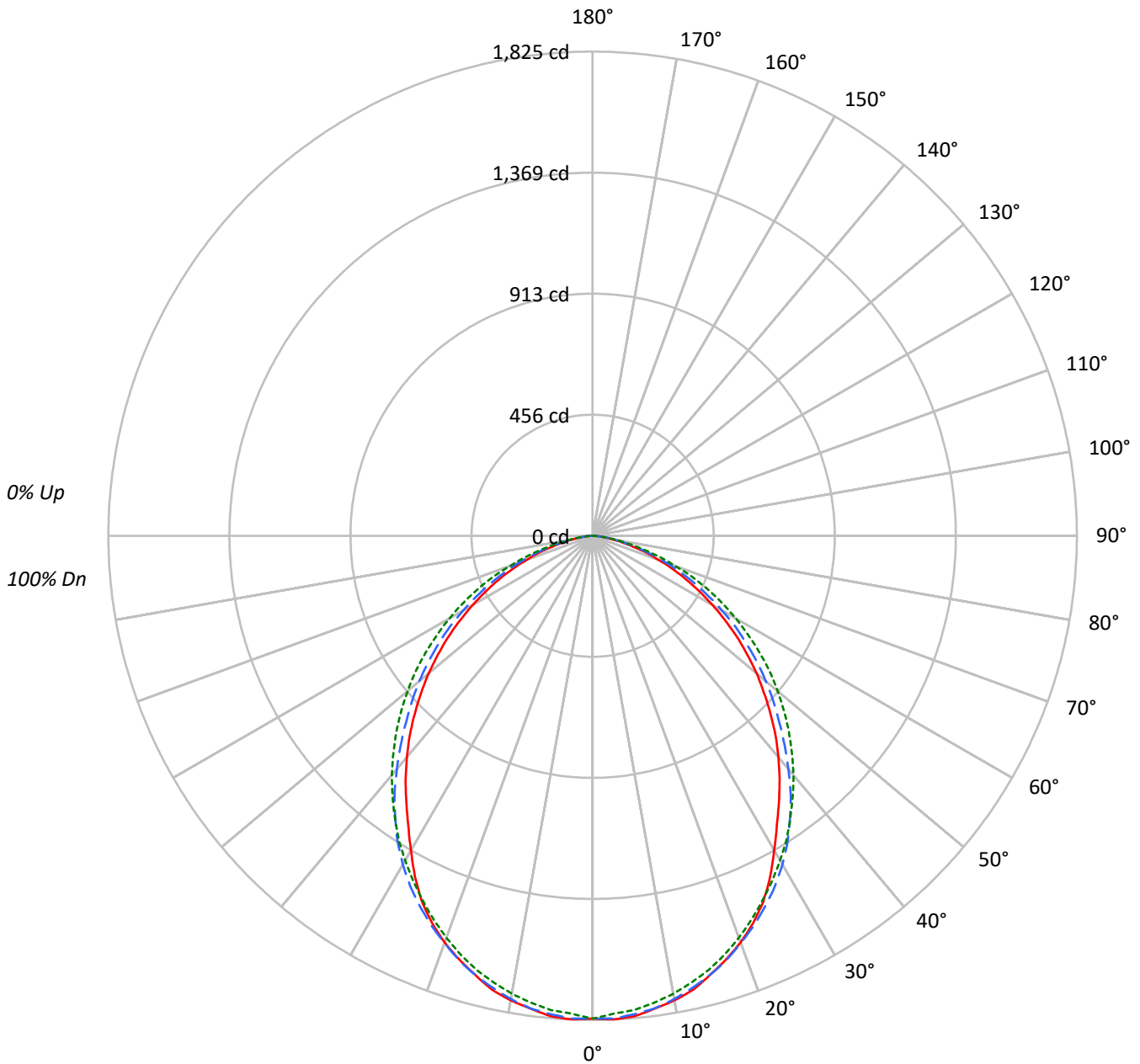
Lumens per Lamp: N/A
Luminaire Lumens: 4208.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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				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	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°	9795	9795	9795
5°	9821	9779	9696
10°	9716	9689	9578
15°	9544	9544	9435
20°	9342	9354	9234
25°	9034	9146	9001
30°	8507	8889	8781
35°	8039	8521	8535
40°	7648	8061	8271
45°	7210	7572	7961
50°	6749	7135	7622
55°	6226	6639	7210
60°	5607	6058	6705
65°	4950	5387	6099
70°	4126	4587	5182
75°	3242	3664	4057
80°	2318	2579	2861
85°	1513	1513	1426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.3	4.1
10°-20°	481.4	11.4
20°-30°	703.4	16.7
30°-40°	798.5	19.0
40°-50°	770.8	18.3
50°-60°	635.9	15.1
60°-70°	423.4	10.1
70°-80°	189.5	4.5
80°-90°	33.9	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°	1356.1	32.2
0°-40°	2154.6	51.2
0°-60°	3561.2	84.6
0°-90°	4208.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4208.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1818	1817	1810	1800	1795	172
15°	1713	1717	1713	1705	1693	483
25°	1521	1533	1540	1529	1516	697
35°	1224	1240	1297	1304	1299	767
45°	947	963	995	1040	1046	731
55°	664	675	708	747	768	592
65°	389	399	423	453	479	385
75°	156	164	176	185	195	170
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1819.9	1819.9	1819.9	1819.9	1819.9
2.5°	1824.7	1825.4	1821.2	1810.1	1803.1
5°	1817.8	1817.1	1810.1	1800.3	1794.7
7.5°	1797.5	1798.9	1796.8	1782.8	1775.1
10°	1777.9	1778.6	1773.0	1761.8	1752.7
12.5°	1752.7	1752.0	1744.3	1738.8	1724.1
15°	1712.9	1717.1	1712.9	1705.2	1693.3
17.5°	1674.4	1674.4	1677.2	1663.9	1654.9
20°	1631.1	1633.2	1633.2	1622.7	1612.2
22.5°	1580.7	1587.0	1589.1	1578.0	1565.4
25°	1521.3	1533.2	1540.2	1529.0	1515.7
27.5°	1449.3	1467.5	1488.5	1480.1	1465.4
30°	1368.9	1395.5	1430.4	1423.4	1413.0
32.5°	1292.7	1319.3	1367.5	1364.7	1359.1
35°	1223.5	1240.3	1296.9	1303.9	1299.0
37.5°	1157.8	1173.2	1226.3	1242.4	1238.2
40°	1088.6	1105.3	1147.3	1175.9	1177.3
42.5°	1020.0	1036.1	1070.4	1111.6	1111.6
45°	947.3	963.4	994.9	1040.3	1045.9
47.5°	876.0	892.8	923.6	969.0	978.1
50°	806.1	821.5	852.2	896.3	910.3
52.5°	733.4	750.2	780.2	820.8	841.1
55°	663.5	674.7	707.5	746.7	768.4
57.5°	590.8	601.3	638.3	671.9	694.2
60°	520.9	534.1	562.8	597.1	622.9
62.5°	453.7	467.7	492.2	522.3	551.6
65°	388.7	399.2	423.0	453.0	478.9
67.5°	325.8	334.9	358.7	379.6	406.9
70°	262.2	274.1	291.5	311.8	329.3
72.5°	211.1	216.0	230.7	245.4	263.6
75°	155.9	164.3	176.2	184.6	195.1
77.5°	111.9	116.8	123.7	130.7	140.5
80°	74.8	76.9	83.2	84.6	92.3
82.5°	45.4	46.8	48.2	48.9	51.7
85°	24.5	24.5	24.5	23.1	23.1
87.5°	14.0	14.0	11.9	9.8	7.0
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)