

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: P556046

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-81-97-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: P556046
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-81-97-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

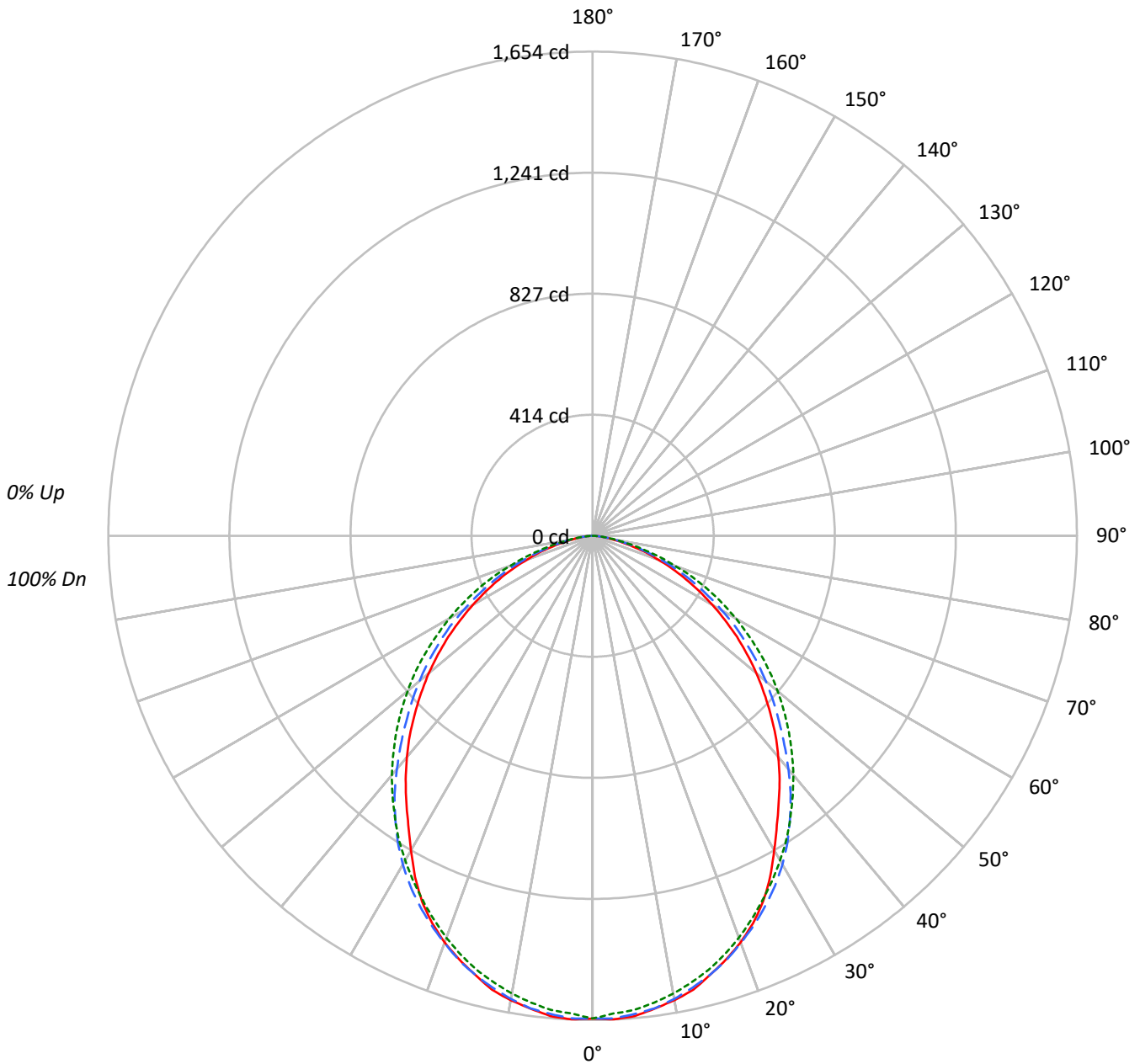
Lumens per Lamp: N/A
Luminaire Lumens: 3813.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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									
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°	8875	8875	8875
5°	8898	8861	8786
10°	8804	8780	8679
15°	8648	8648	8549
20°	8465	8476	8367
25°	8186	8288	8156
30°	7709	8055	7956
35°	7284	7721	7734
40°	6930	7304	7495
45°	6533	6862	7213
50°	6116	6466	6906
55°	5641	6016	6533
60°	5081	5490	6076
65°	4485	4881	5527
70°	3739	4157	4696
75°	2938	3319	3674
80°	2101	2337	2591
85°	1371	1371	1291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.3	4.1
10°-20°	436.2	11.4
20°-30°	637.4	16.7
30°-40°	723.5	19.0
40°-50°	698.4	18.3
50°-60°	576.2	15.1
60°-70°	383.7	10.1
70°-80°	171.7	4.5
80°-90°	30.7	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°	1228.8	32.2
0°-40°	1952.3	51.2
0°-60°	3226.9	84.6
0°-90°	3813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3813.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1647	1646	1640	1631	1626	156
15°	1552	1556	1552	1545	1534	438
25°	1378	1389	1396	1386	1373	631
35°	1109	1124	1175	1182	1177	695
45°	858	873	902	943	948	662
55°	601	611	641	677	696	537
65°	352	362	383	410	434	349
75°	141	149	160	167	177	154
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1649.0	1649.0	1649.0	1649.0	1649.0
2.5°	1653.5	1654.1	1650.3	1640.2	1633.8
5°	1647.1	1646.5	1640.2	1631.3	1626.2
7.5°	1628.8	1630.0	1628.1	1615.4	1608.5
10°	1611.0	1611.6	1606.6	1596.4	1588.2
12.5°	1588.2	1587.6	1580.6	1575.5	1562.2
15°	1552.1	1555.9	1552.1	1545.1	1534.4
17.5°	1517.3	1517.3	1519.8	1507.8	1499.5
20°	1478.0	1479.9	1479.9	1470.4	1460.9
22.5°	1432.4	1438.1	1440.0	1429.8	1418.4
25°	1378.5	1389.3	1395.6	1385.5	1373.4
27.5°	1313.3	1329.7	1348.7	1341.1	1327.8
30°	1240.4	1264.5	1296.2	1289.8	1280.3
32.5°	1171.4	1195.4	1239.1	1236.6	1231.5
35°	1108.6	1123.8	1175.2	1181.5	1177.1
37.5°	1049.1	1063.0	1111.2	1125.7	1121.9
40°	986.4	1001.6	1039.6	1065.6	1066.8
42.5°	924.3	938.9	969.9	1007.3	1007.3
45°	858.4	873.0	901.5	942.7	947.7
47.5°	793.8	809.0	836.9	878.0	886.3
50°	730.4	744.4	772.2	812.2	824.8
52.5°	664.6	679.8	707.0	743.7	762.1
55°	601.2	611.3	641.1	676.6	696.2
57.5°	535.3	544.8	578.4	608.8	629.1
60°	472.0	484.0	510.0	541.0	564.5
62.5°	411.1	423.8	446.0	473.2	499.8
65°	352.2	361.7	383.3	410.5	434.0
67.5°	295.2	303.5	325.0	344.0	368.7
70°	237.6	248.3	264.2	282.5	298.4
72.5°	191.3	195.8	209.1	222.4	238.8
75°	141.3	148.9	159.6	167.2	176.7
77.5°	101.4	105.8	112.1	118.5	127.3
80°	67.8	69.7	75.4	76.7	83.6
82.5°	41.2	42.4	43.7	44.3	46.9
85°	22.2	22.2	22.2	20.9	20.9
87.5°	12.7	12.7	10.8	8.9	6.3
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)