

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: P556205

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-93-96-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: P556205
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-LD4-1HI-30-UNV-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

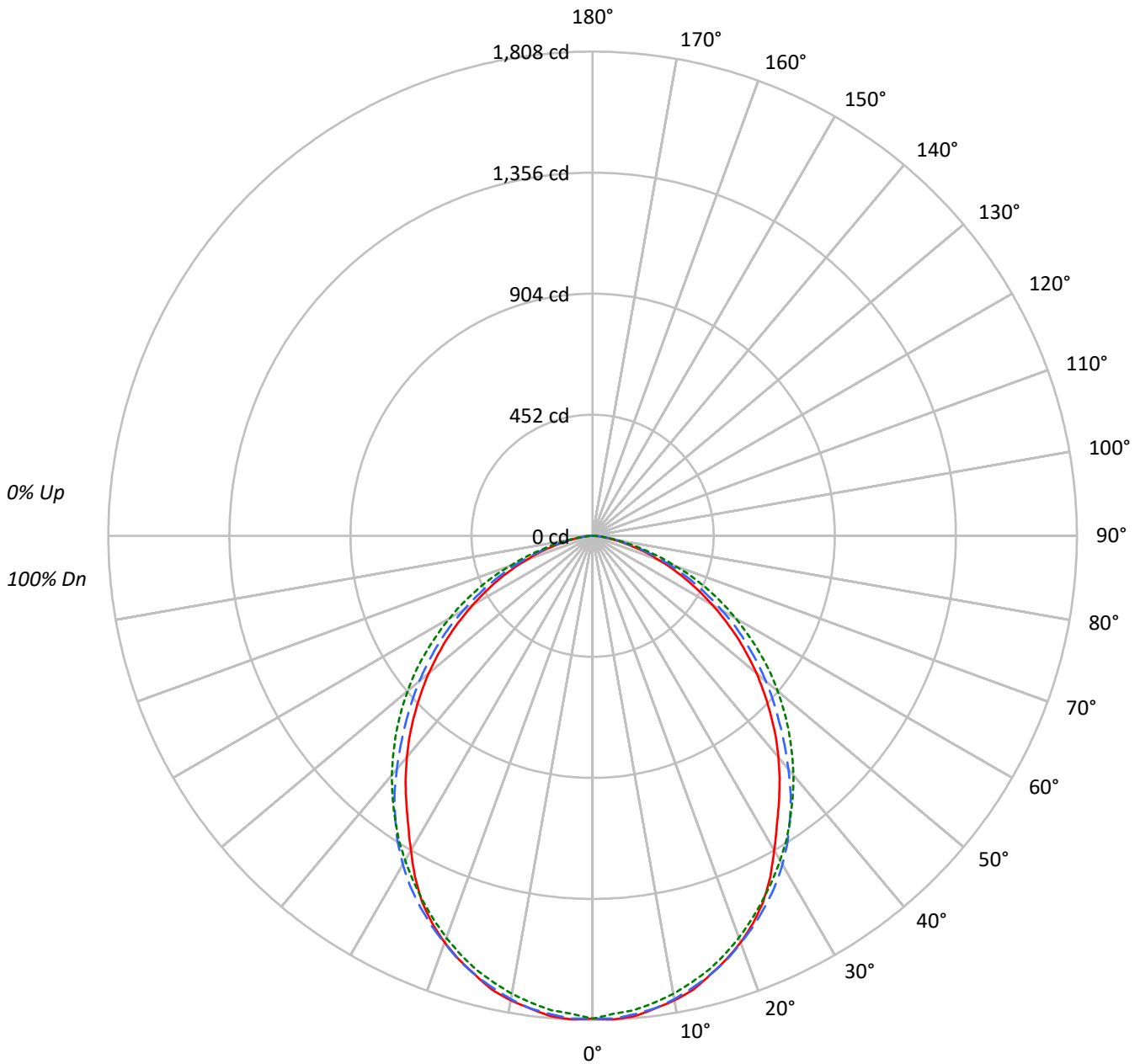
Lumens per Lamp: N/A
Luminaire Lumens: 4169.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4852	4852	4852
5°	4865	4844	4803
10°	4813	4800	4745
15°	4728	4728	4674
20°	4628	4633	4574
25°	4475	4531	4459
30°	4214	4404	4350
35°	3982	4221	4228
40°	3789	3993	4097
45°	3572	3751	3943
50°	3343	3535	3775
55°	3084	3289	3571
60°	2777	3001	3322
65°	2452	2669	3021
70°	2043	2272	2567
75°	1606	1814	2010
80°	1148	1277	1416
85°	747	747	707



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.8	4.1
10°-20°	476.9	11.4
20°-30°	696.9	16.7
30°-40°	791.1	19.0
40°-50°	763.6	18.3
50°-60°	630.0	15.1
60°-70°	419.5	10.1
70°-80°	187.7	4.5
80°-90°	33.6	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°	1343.5	32.2
0°-40°	2134.6	51.2
0°-60°	3528.2	84.6
0°-90°	4169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1803	1803	1803	1803	1803	
5°	1801	1800	1793	1784	1778	170
15°	1697	1701	1697	1689	1678	478
25°	1507	1519	1526	1515	1502	690
35°	1212	1229	1285	1292	1287	759
45°	938	954	986	1031	1036	724
55°	657	668	701	740	761	587
65°	385	396	419	449	474	382
75°	154	163	174	183	193	169
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°	1803.0	1803.0	1803.0	1803.0	1803.0
2.5°	1807.8	1808.5	1804.4	1793.3	1786.4
5°	1800.9	1800.2	1793.3	1783.6	1778.0
7.5°	1780.8	1782.2	1780.1	1766.3	1758.7
10°	1761.4	1762.1	1756.6	1745.5	1736.5
12.5°	1736.5	1735.8	1728.2	1722.6	1708.1
15°	1697.0	1701.2	1697.0	1689.4	1677.6
17.5°	1658.9	1658.9	1661.7	1648.5	1639.5
20°	1616.0	1618.0	1618.0	1607.7	1597.3
22.5°	1566.1	1572.3	1574.4	1563.3	1550.9
25°	1507.2	1519.0	1525.9	1514.8	1501.7
27.5°	1435.9	1453.9	1474.7	1466.4	1451.8
30°	1356.2	1382.5	1417.2	1410.2	1399.9
32.5°	1280.7	1307.0	1354.8	1352.1	1346.5
35°	1212.1	1228.8	1284.9	1291.8	1287.0
37.5°	1147.0	1162.3	1214.9	1230.9	1226.7
40°	1078.5	1095.1	1136.6	1165.0	1166.4
42.5°	1010.6	1026.5	1060.5	1101.3	1101.3
45°	938.5	954.5	985.7	1030.7	1036.2
47.5°	867.9	884.5	915.0	960.0	969.0
50°	798.6	813.9	844.3	888.0	901.8
52.5°	726.6	743.2	773.0	813.2	833.3
55°	657.3	668.4	701.0	739.8	761.2
57.5°	585.3	595.7	632.4	665.6	687.8
60°	516.0	529.2	557.6	591.5	617.2
62.5°	449.5	463.4	487.6	517.4	546.5
65°	385.1	395.5	419.1	448.8	474.5
67.5°	322.8	331.8	355.3	376.1	403.1
70°	259.7	271.5	288.8	308.9	326.2
72.5°	209.2	214.0	228.6	243.1	261.1
75°	154.5	162.8	174.5	182.9	193.3
77.5°	110.8	115.7	122.6	129.5	139.2
80°	74.1	76.2	82.4	83.8	91.4
82.5°	45.0	46.4	47.8	48.5	51.3
85°	24.2	24.2	24.2	22.9	22.9
87.5°	13.9	13.9	11.8	9.7	6.9
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)