

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: P557255

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-81-87-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: P557255
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-LD4-2LO-35-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

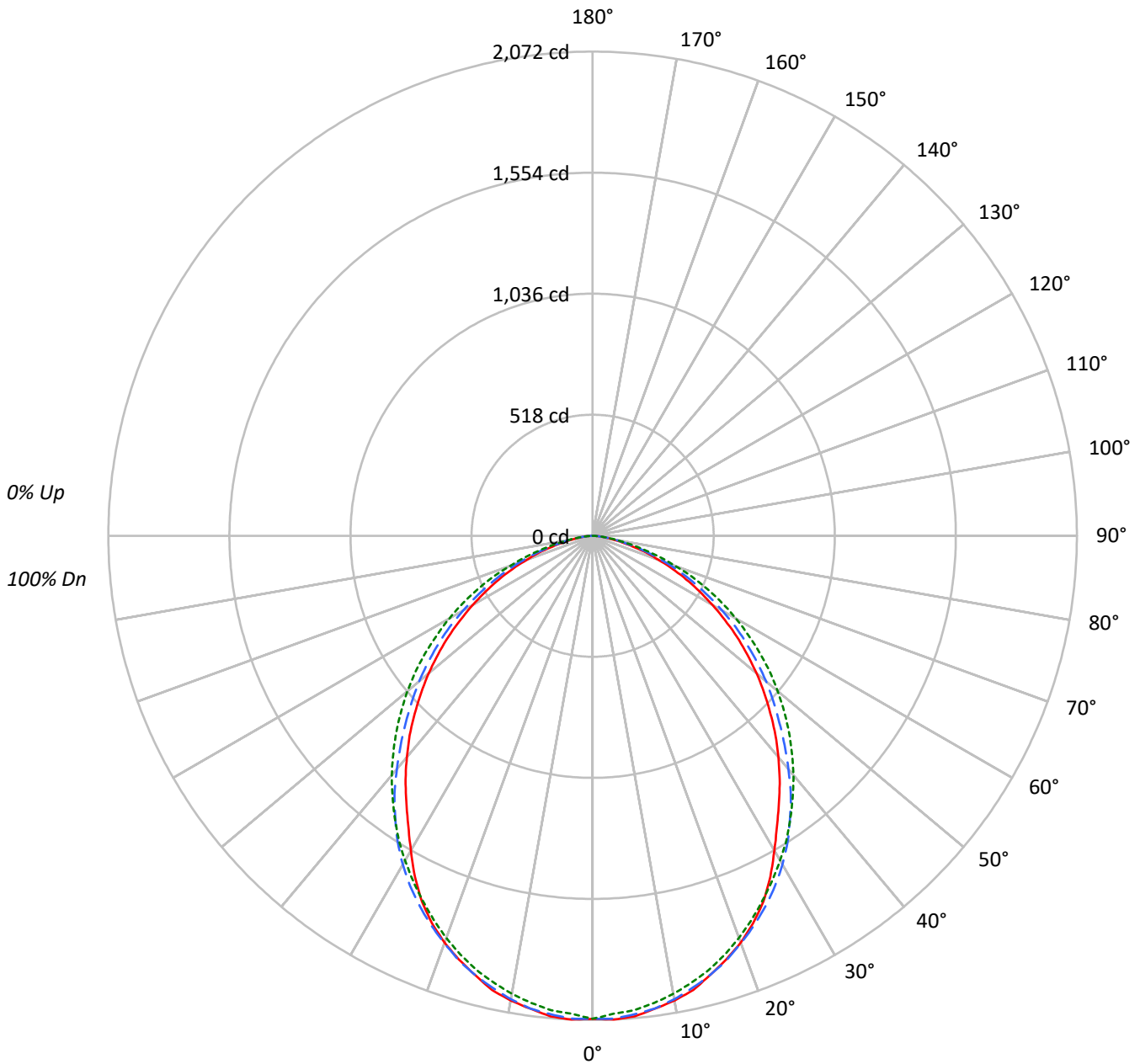
Lumens per Lamp: N/A
Luminaire Lumens: 4779.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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

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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°	5562	5562	5562
5°	5576	5553	5506
10°	5517	5502	5439
15°	5419	5419	5358
20°	5305	5312	5243
25°	5130	5194	5111
30°	4831	5048	4986
35°	4565	4839	4846
40°	4343	4577	4697
45°	4094	4300	4520
50°	3833	4052	4328
55°	3535	3770	4094
60°	3183	3440	3808
65°	2811	3059	3463
70°	2343	2605	2943
75°	1841	2080	2303
80°	1317	1464	1624
85°	858	858	809



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.6	4.1
10°-20°	546.7	11.4
20°-30°	798.9	16.7
30°-40°	906.8	19.0
40°-50°	875.4	18.3
50°-60°	722.1	15.1
60°-70°	480.9	10.1
70°-80°	215.2	4.5
80°-90°	38.5	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°	1540.1	32.2
0°-40°	2446.9	51.2
0°-60°	4044.4	84.6
0°-90°	4779.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4779.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2067	2067	2067	2067	2067	
5°	2064	2064	2056	2045	2038	195
15°	1945	1950	1945	1937	1923	548
25°	1728	1741	1749	1736	1721	791
35°	1390	1409	1473	1481	1475	871
45°	1076	1094	1130	1182	1188	830
55°	754	766	804	848	873	673
65°	442	453	480	514	544	438
75°	177	187	200	210	222	194
85°	28	28	28	26	26	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2066.8	2066.8	2066.8	2066.8	2066.8
2.5°	2072.4	2073.1	2068.4	2055.7	2047.7
5°	2064.4	2063.6	2055.7	2044.6	2038.2
7.5°	2041.4	2043.0	2040.6	2024.7	2016.0
10°	2019.2	2019.9	2013.6	2000.9	1990.6
12.5°	1990.6	1989.8	1981.0	1974.7	1958.0
15°	1945.3	1950.1	1945.3	1936.6	1923.1
17.5°	1901.6	1901.6	1904.8	1889.7	1879.4
20°	1852.4	1854.8	1854.8	1842.9	1831.0
22.5°	1795.2	1802.4	1804.8	1792.1	1777.8
25°	1727.8	1741.3	1749.2	1736.5	1721.4
27.5°	1646.0	1666.6	1690.4	1680.9	1664.2
30°	1554.7	1584.8	1624.5	1616.6	1604.7
32.5°	1468.1	1498.3	1553.1	1549.9	1543.5
35°	1389.5	1408.6	1472.9	1480.8	1475.3
37.5°	1314.9	1332.3	1392.7	1410.9	1406.2
40°	1236.3	1255.3	1303.0	1335.5	1337.1
42.5°	1158.5	1176.7	1215.6	1262.5	1262.5
45°	1075.9	1094.1	1129.9	1181.5	1187.8
47.5°	994.9	1013.9	1048.9	1100.5	1110.8
50°	915.5	933.0	967.9	1017.9	1033.8
52.5°	832.9	852.0	886.1	932.2	955.2
55°	753.5	766.2	803.5	848.0	872.6
57.5°	670.9	682.8	724.9	763.0	788.4
60°	591.5	606.6	639.2	678.1	707.5
62.5°	515.3	531.2	559.0	593.1	626.5
65°	441.5	453.4	480.4	514.5	543.9
67.5°	370.0	380.3	407.3	431.1	462.1
70°	297.8	311.2	331.1	354.1	374.0
72.5°	239.8	245.3	262.0	278.7	299.3
75°	177.1	186.6	200.1	209.6	221.5
77.5°	127.0	132.6	140.5	148.5	159.6
80°	85.0	87.3	94.5	96.1	104.8
82.5°	51.6	53.2	54.8	55.6	58.8
85°	27.8	27.8	27.8	26.2	26.2
87.5°	15.9	15.9	13.5	11.1	7.9
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)