

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: P556369

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-82-84-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: P556369
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-50-UNV-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

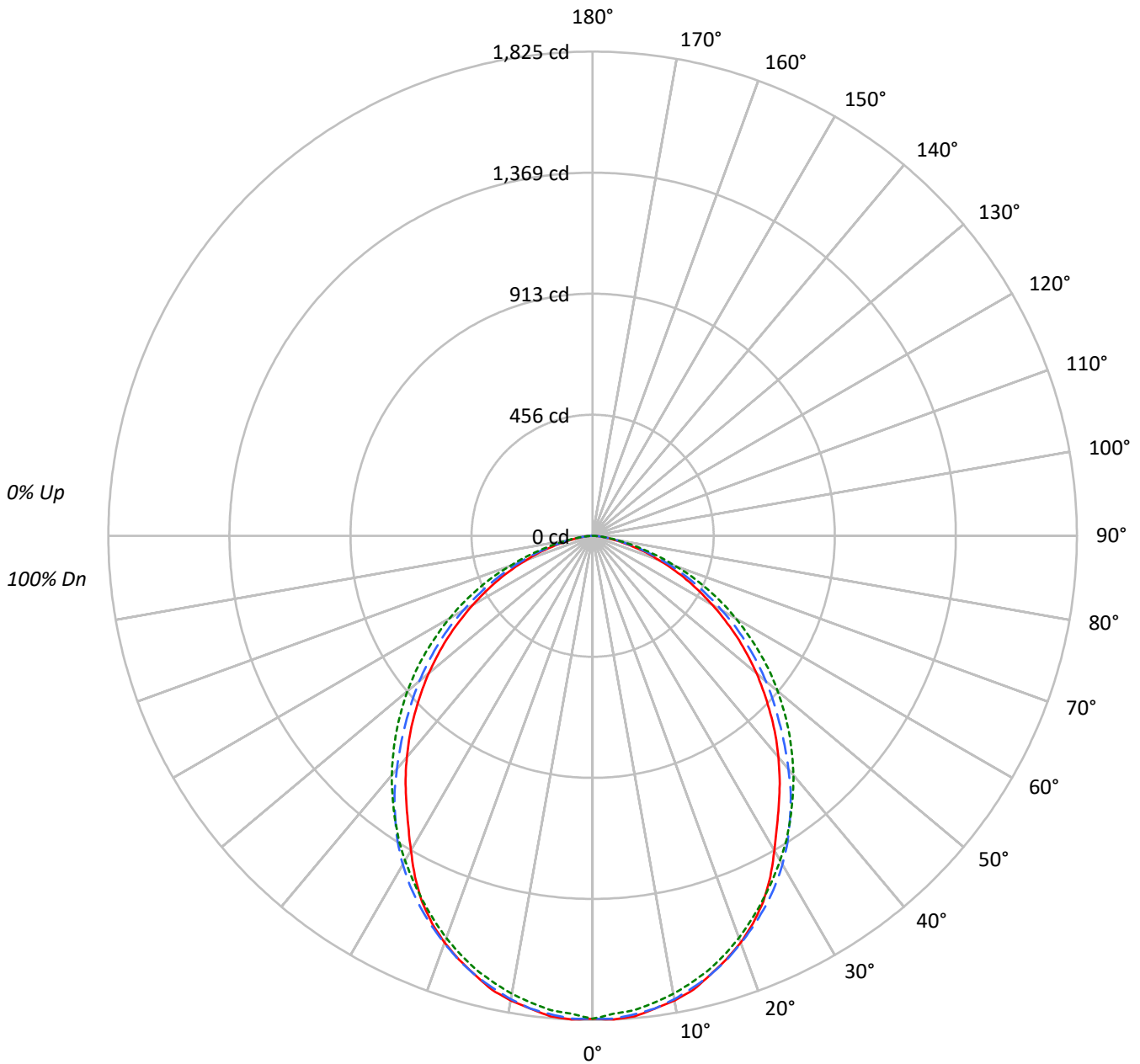
Lumens per Lamp: N/A
Luminaire Lumens: 4209.0 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4898	4898	4898
5°	4911	4891	4849
10°	4859	4846	4791
15°	4773	4773	4718
20°	4672	4678	4618
25°	4518	4574	4502
30°	4254	4446	4392
35°	4020	4261	4268
40°	3825	4031	4137
45°	3606	3787	3981
50°	3376	3569	3812
55°	3113	3320	3605
60°	2804	3030	3353
65°	2476	2694	3050
70°	2063	2294	2592
75°	1621	1832	2028
80°	1159	1289	1430
85°	756	756	713



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.4	4.1
10°-20°	481.5	11.4
20°-30°	703.6	16.7
30°-40°	798.6	19.0
40°-50°	771.0	18.3
50°-60°	636.0	15.1
60°-70°	423.5	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°	1356.4	32.2
0°-40°	2155.1	51.2
0°-60°	3562.1	84.6
0°-90°	4209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1818	1818	1810	1801	1795	172
15°	1713	1718	1713	1706	1694	483
25°	1522	1534	1541	1529	1516	697
35°	1224	1241	1297	1304	1299	767
45°	948	964	995	1041	1046	731
55°	664	675	708	747	768	592
65°	389	399	423	453	479	386
75°	156	164	176	185	195	171
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°	1820.3	1820.3	1820.3	1820.3	1820.3
2.5°	1825.2	1825.9	1821.7	1810.5	1803.5
5°	1818.2	1817.5	1810.5	1800.7	1795.1
7.5°	1797.9	1799.3	1797.2	1783.2	1775.5
10°	1778.3	1779.0	1773.4	1762.2	1753.2
12.5°	1753.2	1752.5	1744.8	1739.2	1724.5
15°	1713.3	1717.5	1713.3	1705.6	1693.7
17.5°	1674.8	1674.8	1677.6	1664.3	1655.2
20°	1631.5	1633.6	1633.6	1623.1	1612.6
22.5°	1581.1	1587.4	1589.5	1578.3	1565.7
25°	1521.7	1533.6	1540.6	1529.4	1516.1
27.5°	1449.7	1467.8	1488.8	1480.4	1465.7
30°	1369.2	1395.8	1430.8	1423.8	1413.3
32.5°	1293.0	1319.6	1367.8	1365.0	1359.4
35°	1223.8	1240.6	1297.2	1304.2	1299.3
37.5°	1158.0	1173.4	1226.6	1242.7	1238.5
40°	1088.8	1105.6	1147.6	1176.2	1177.6
42.5°	1020.3	1036.4	1070.6	1111.9	1111.9
45°	947.6	963.6	995.1	1040.6	1046.2
47.5°	876.2	893.0	923.8	969.2	978.3
50°	806.3	821.7	852.4	896.5	910.5
52.5°	733.6	750.4	780.4	821.0	841.3
55°	663.6	674.8	707.7	746.9	768.5
57.5°	590.9	601.4	638.5	672.0	694.4
60°	521.0	534.3	562.9	597.2	623.1
62.5°	453.8	467.8	492.3	522.4	551.7
65°	388.8	399.3	423.1	453.1	479.0
67.5°	325.9	335.0	358.7	379.7	407.0
70°	262.2	274.1	291.6	311.9	329.4
72.5°	211.2	216.1	230.8	245.5	263.6
75°	155.9	164.3	176.2	184.6	195.1
77.5°	111.9	116.8	123.8	130.8	140.6
80°	74.8	76.9	83.2	84.6	92.3
82.5°	45.5	46.9	48.3	49.0	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)