

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: P557184

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-84-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: P557184
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-30-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

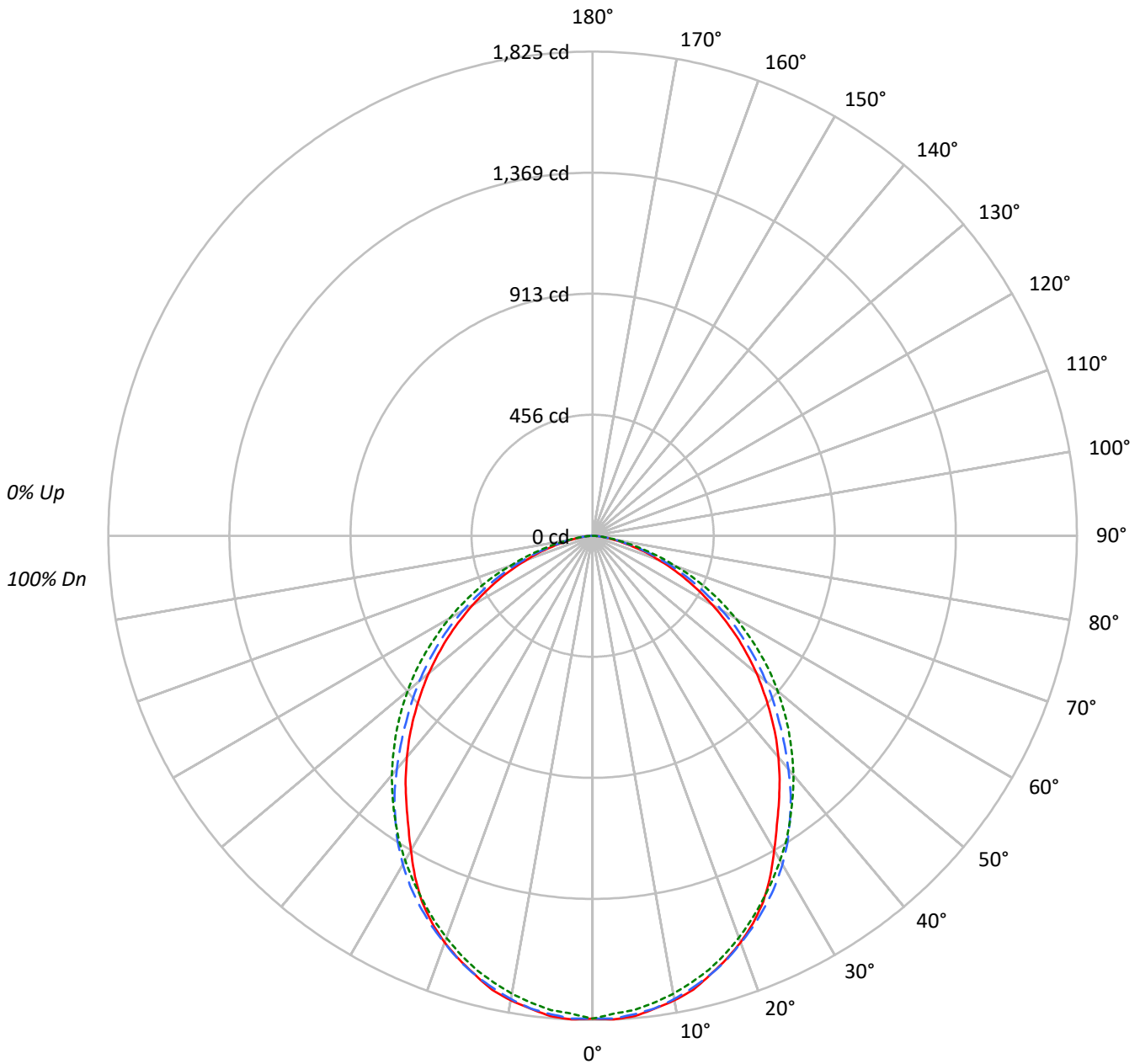
Lumens per Lamp: N/A
Luminaire Lumens: 4208.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4897	4897	4897
5°	4910	4890	4848
10°	4858	4845	4789
15°	4772	4772	4717
20°	4671	4677	4617
25°	4517	4573	4500
30°	4254	4445	4391
35°	4019	4260	4267
40°	3824	4030	4136
45°	3605	3786	3980
50°	3375	3568	3811
55°	3113	3319	3605
60°	2803	3029	3352
65°	2475	2693	3049
70°	2063	2293	2591
75°	1621	1832	2028
80°	1159	1289	1430
85°	756	756	713



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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)