

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: P557201

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-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: P557201
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-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

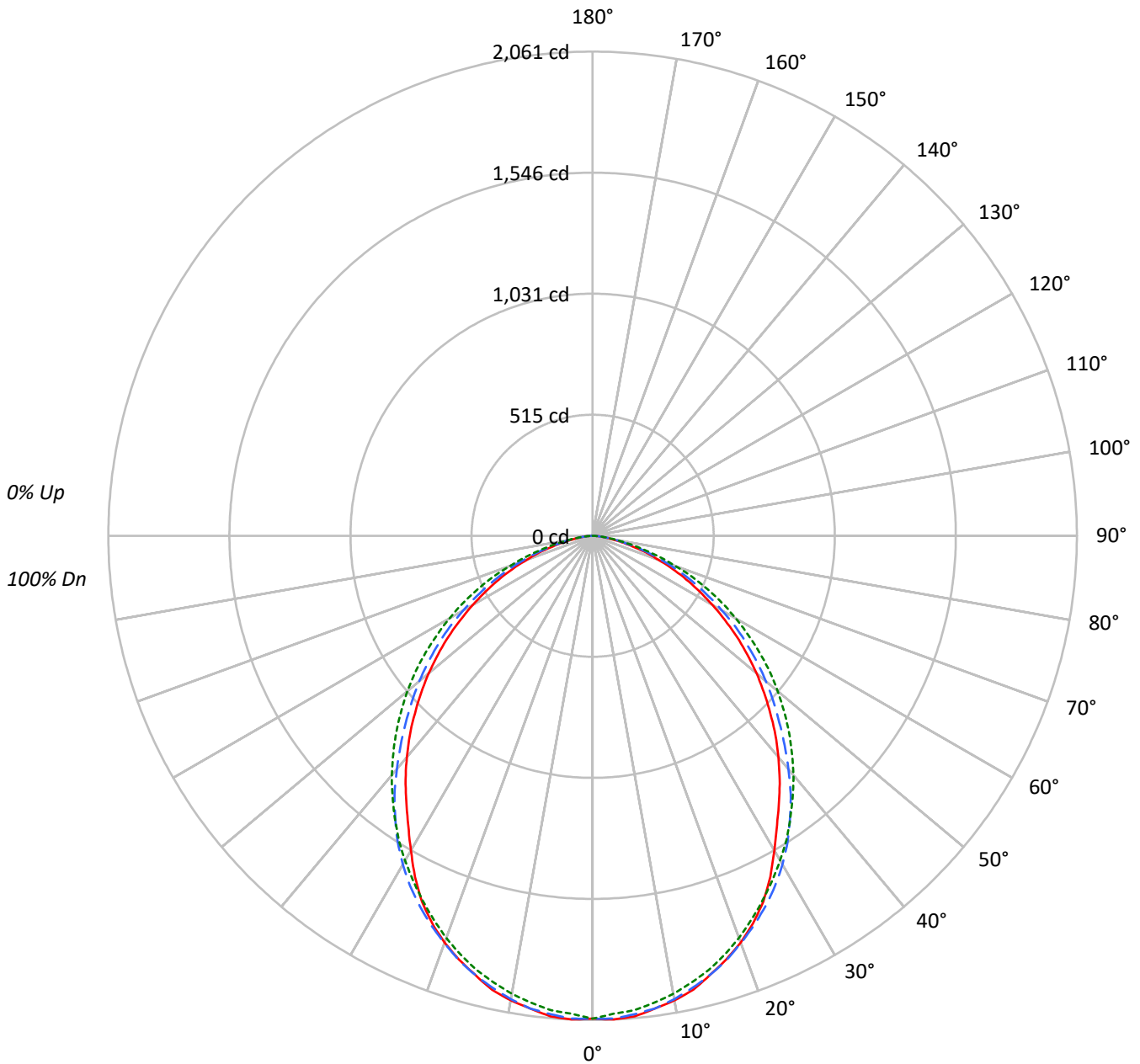
Lumens per Lamp: N/A
Luminaire Lumens: 4753.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5531	5531	5531
5°	5546	5523	5476
10°	5487	5472	5410
15°	5390	5390	5328
20°	5276	5283	5215
25°	5102	5165	5083
30°	4804	5020	4959
35°	4540	4812	4820
40°	4319	4552	4671
45°	4072	4276	4496
50°	3812	4030	4304
55°	3516	3750	4072
60°	3166	3421	3787
65°	2796	3042	3444
70°	2330	2591	2926
75°	1831	2069	2290
80°	1309	1457	1615
85°	852	852	806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.5	4.1
10°-20°	543.7	11.4
20°-30°	794.5	16.7
30°-40°	901.9	19.0
40°-50°	870.6	18.3
50°-60°	718.2	15.1
60°-70°	478.3	10.1
70°-80°	214.0	4.5
80°-90°	38.3	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°	1531.8	32.2
0°-40°	2433.6	51.2
0°-60°	4022.4	84.6
0°-90°	4753.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4753.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2056	2056	2056	2056	2056	
5°	2053	2052	2044	2033	2027	194
15°	1935	1940	1935	1926	1913	545
25°	1718	1732	1740	1727	1712	787
35°	1382	1401	1465	1473	1467	866
45°	1070	1088	1124	1175	1181	826
55°	749	762	799	843	868	669
65°	439	451	478	512	541	435
75°	176	186	199	208	220	193
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°	2055.5	2055.5	2055.5	2055.5	2055.5
2.5°	2061.1	2061.9	2057.1	2044.5	2036.6
5°	2053.2	2052.4	2044.5	2033.4	2027.1
7.5°	2030.3	2031.9	2029.5	2013.7	2005.0
10°	2008.2	2009.0	2002.6	1990.0	1979.7
12.5°	1979.7	1979.0	1970.3	1963.9	1947.4
15°	1934.7	1939.5	1934.7	1926.0	1912.6
17.5°	1891.3	1891.3	1894.5	1879.5	1869.2
20°	1842.3	1844.7	1844.7	1832.9	1821.0
22.5°	1785.5	1792.6	1795.0	1782.3	1768.1
25°	1718.4	1731.8	1739.7	1727.0	1712.0
27.5°	1637.0	1657.5	1681.2	1671.8	1655.2
30°	1546.2	1576.2	1615.7	1607.8	1596.0
32.5°	1460.1	1490.1	1544.6	1541.5	1535.1
35°	1381.9	1400.9	1464.9	1472.8	1467.2
37.5°	1307.7	1325.1	1385.1	1403.3	1398.5
40°	1229.5	1248.5	1295.9	1328.2	1329.8
42.5°	1152.2	1170.3	1209.0	1255.6	1255.6
45°	1070.0	1088.2	1123.7	1175.1	1181.4
47.5°	989.5	1008.4	1043.2	1094.5	1104.8
50°	910.5	927.9	962.6	1012.4	1028.2
52.5°	828.4	847.3	881.3	927.1	950.0
55°	749.4	762.0	799.2	843.4	867.9
57.5°	667.3	679.1	721.0	758.9	784.2
60°	588.3	603.3	635.7	674.4	703.6
62.5°	512.5	528.3	555.9	589.9	623.1
65°	439.1	450.9	477.8	511.7	540.9
67.5°	368.0	378.3	405.1	428.8	459.6
70°	296.1	309.6	329.3	352.2	371.9
72.5°	238.5	244.0	260.6	277.2	297.7
75°	176.1	185.6	199.0	208.5	220.3
77.5°	126.3	131.9	139.8	147.7	158.7
80°	84.5	86.9	94.0	95.6	104.2
82.5°	51.3	52.9	54.5	55.3	58.4
85°	27.6	27.6	27.6	26.1	26.1
87.5°	15.8	15.8	13.4	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)