

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: P557269

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-82-86-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: P557269
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

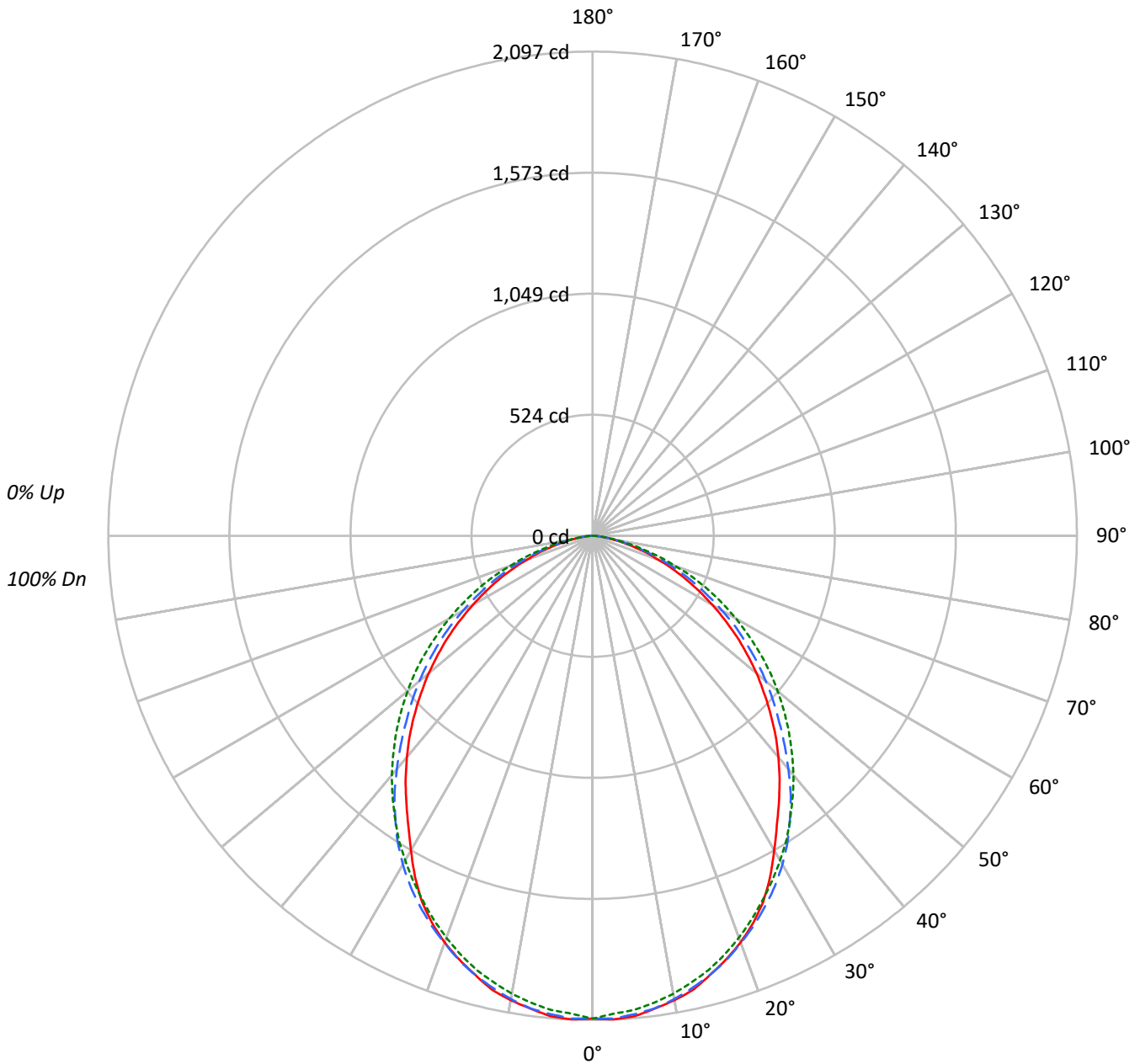
Lumens per Lamp: N/A
Luminaire Lumens: 4835.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5627	5627	5627
5°	5642	5618	5570
10°	5582	5567	5503
15°	5483	5483	5420
20°	5367	5374	5305
25°	5190	5255	5171
30°	4887	5107	5045
35°	4618	4895	4903
40°	4394	4631	4752
45°	4142	4350	4573
50°	3877	4099	4379
55°	3576	3814	4142
60°	3221	3481	3852
65°	2844	3095	3504
70°	2370	2636	2977
75°	1862	2104	2330
80°	1333	1481	1643
85°	868	868	818



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.9	4.1
10°-20°	553.1	11.4
20°-30°	808.2	16.7
30°-40°	917.4	19.0
40°-50°	885.6	18.3
50°-60°	730.6	15.1
60°-70°	486.5	10.1
70°-80°	217.7	4.5
80°-90°	38.9	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°	1558.2	32.2
0°-40°	2475.6	51.2
0°-60°	4091.8	84.6
0°-90°	4835.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2091	2091	2091	2091	2091	
5°	2089	2088	2080	2068	2062	198
15°	1968	1973	1968	1959	1946	555
25°	1748	1762	1770	1757	1742	801
35°	1406	1425	1490	1498	1492	881
45°	1088	1107	1143	1195	1202	840
55°	762	775	813	858	883	680
65°	447	459	486	520	550	443
75°	179	189	202	212	224	196
85°	28	28	28	26	26	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2091.0	2091.0	2091.0	2091.0	2091.0
2.5°	2096.6	2097.4	2092.6	2079.8	2071.7
5°	2088.6	2087.8	2079.8	2068.5	2062.1
7.5°	2065.3	2066.9	2064.5	2048.4	2039.6
10°	2042.8	2043.6	2037.2	2024.3	2013.9
12.5°	2013.9	2013.1	2004.3	1997.8	1981.0
15°	1968.1	1972.9	1968.1	1959.3	1945.6
17.5°	1923.9	1923.9	1927.1	1911.9	1901.4
20°	1874.1	1876.5	1876.5	1864.5	1852.4
22.5°	1816.3	1823.5	1825.9	1813.1	1798.6
25°	1748.0	1761.7	1769.7	1756.8	1741.6
27.5°	1665.3	1686.1	1710.2	1700.6	1683.7
30°	1572.9	1603.4	1643.6	1635.5	1623.5
32.5°	1485.3	1515.8	1571.3	1568.1	1561.6
35°	1405.8	1425.1	1490.1	1498.2	1492.5
37.5°	1330.3	1348.0	1409.0	1427.5	1422.7
40°	1250.8	1270.0	1318.2	1351.2	1352.8
42.5°	1172.0	1190.5	1229.9	1277.3	1277.3
45°	1088.5	1107.0	1143.1	1195.3	1201.7
47.5°	1006.5	1025.8	1061.2	1113.4	1123.8
50°	926.2	943.9	979.2	1029.8	1045.9
52.5°	842.7	862.0	896.5	943.1	966.4
55°	762.3	775.2	812.9	857.9	882.8
57.5°	678.8	690.8	733.4	772.0	797.7
60°	598.5	613.7	646.7	686.0	715.7
62.5°	521.3	537.4	565.5	600.1	633.8
65°	446.6	458.7	486.0	520.5	550.3
67.5°	374.3	384.8	412.1	436.2	467.5
70°	301.2	314.9	335.0	358.3	378.4
72.5°	242.6	248.2	265.1	282.0	302.8
75°	179.1	188.8	202.4	212.1	224.1
77.5°	128.5	134.2	142.2	150.2	161.5
80°	86.0	88.4	95.6	97.2	106.0
82.5°	52.2	53.8	55.4	56.2	59.4
85°	28.1	28.1	28.1	26.5	26.5
87.5°	16.1	16.1	13.7	11.2	8.0
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)