

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: P557173

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-80-86-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: P557173
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-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

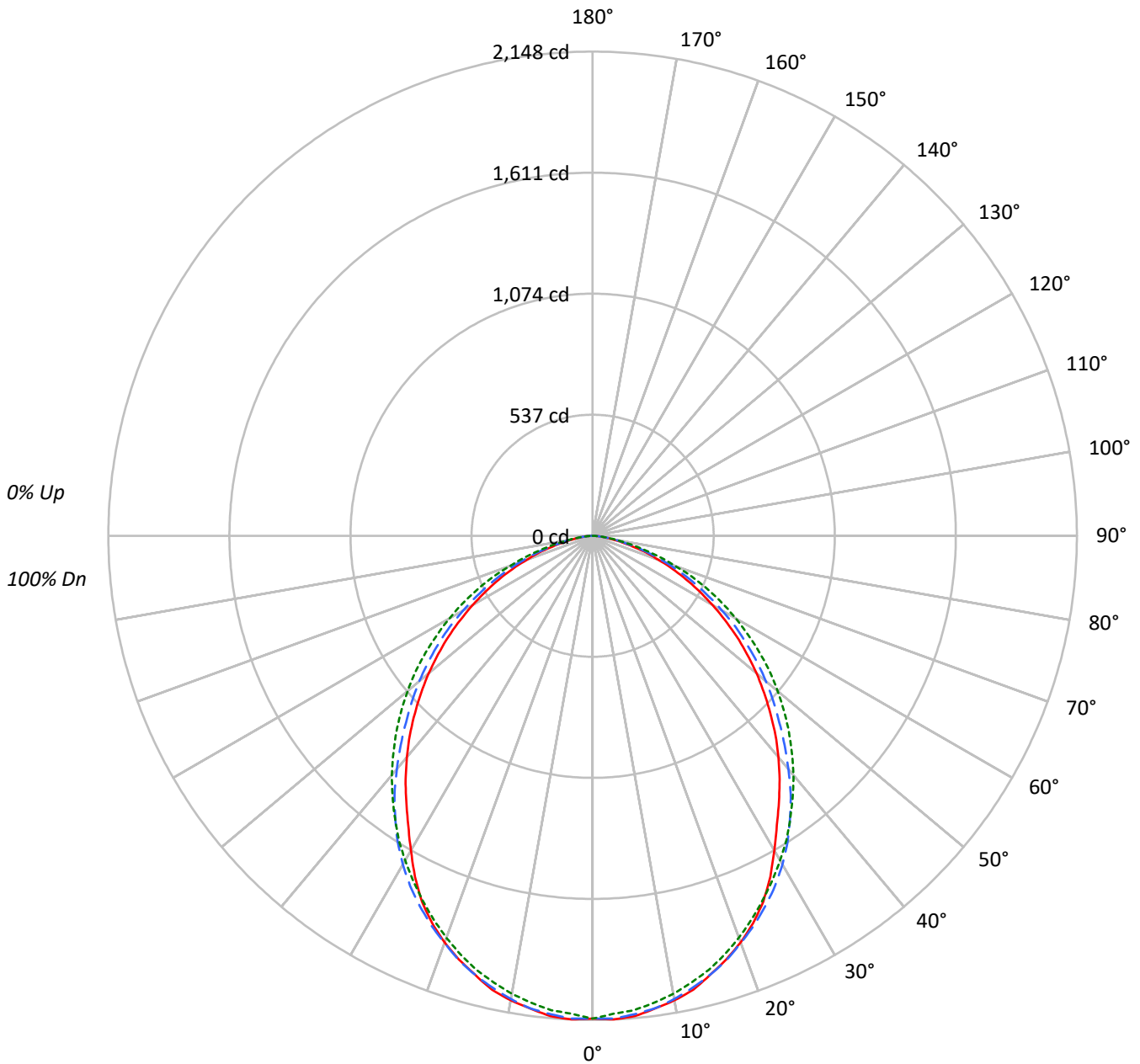
Lumens per Lamp: N/A
Luminaire Lumens: 4953.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5764	5764	5764
5°	5780	5755	5706
10°	5718	5702	5637
15°	5617	5617	5553
20°	5498	5505	5434
25°	5317	5383	5297
30°	5007	5232	5168
35°	4731	5015	5023
40°	4501	4744	4868
45°	4243	4456	4685
50°	3972	4199	4485
55°	3664	3907	4243
60°	3300	3565	3946
65°	2913	3170	3589
70°	2428	2700	3050
75°	1908	2156	2387
80°	1365	1517	1683
85°	889	889	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.7	4.1
10°-20°	566.6	11.4
20°-30°	828.0	16.7
30°-40°	939.8	19.0
40°-50°	907.3	18.3
50°-60°	748.4	15.1
60°-70°	498.4	10.1
70°-80°	223.0	4.5
80°-90°	39.9	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°	1596.2	32.2
0°-40°	2536.0	51.2
0°-60°	4191.7	84.6
0°-90°	4953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2142	2142	2142	2142	2142	
5°	2140	2139	2130	2119	2112	203
15°	2016	2021	2016	2007	1993	568
25°	1791	1805	1813	1800	1784	820
35°	1440	1460	1526	1535	1529	902
45°	1115	1134	1171	1224	1231	860
55°	781	794	833	879	904	697
65°	458	470	498	533	564	454
75°	184	193	207	217	230	201
85°	29	29	29	27	27	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2142.0	2142.0	2142.0	2142.0	2142.0
2.5°	2147.8	2148.6	2143.7	2130.5	2122.3
5°	2139.6	2138.8	2130.5	2119.0	2112.4
7.5°	2115.7	2117.4	2114.9	2098.4	2089.4
10°	2092.7	2093.5	2086.9	2073.7	2063.0
12.5°	2063.0	2062.2	2053.2	2046.6	2029.3
15°	2016.1	2021.1	2016.1	2007.1	1993.1
17.5°	1970.9	1970.9	1974.2	1958.5	1947.8
20°	1919.9	1922.3	1922.3	1910.0	1897.6
22.5°	1860.6	1868.0	1870.5	1857.3	1842.5
25°	1790.7	1804.6	1812.9	1799.7	1784.1
27.5°	1705.9	1727.3	1752.0	1742.1	1724.8
30°	1611.3	1642.5	1683.7	1675.5	1663.1
32.5°	1521.6	1552.8	1609.6	1606.3	1599.7
35°	1440.1	1459.8	1526.5	1534.7	1529.0
37.5°	1362.7	1380.8	1443.4	1462.3	1457.4
40°	1281.3	1301.0	1350.4	1384.1	1385.8
42.5°	1200.6	1219.6	1259.9	1308.4	1308.4
45°	1115.0	1134.0	1171.0	1224.5	1231.1
47.5°	1031.1	1050.9	1087.1	1140.6	1151.3
50°	948.8	966.9	1003.1	1055.0	1071.4
52.5°	863.2	883.0	918.4	966.1	990.0
55°	780.9	794.1	832.8	878.9	904.4
57.5°	695.4	707.7	751.3	790.8	817.2
60°	613.1	628.7	662.4	702.8	733.2
62.5°	534.1	550.5	579.3	614.7	649.3
65°	457.5	469.9	497.9	533.2	563.7
67.5°	383.5	394.2	422.2	446.8	478.9
70°	308.6	322.6	343.2	367.0	387.6
72.5°	248.5	254.3	271.6	288.8	310.2
75°	183.5	193.4	207.4	217.2	229.6
77.5°	131.7	137.4	145.7	153.9	165.4
80°	88.1	90.5	97.9	99.6	108.6
82.5°	53.5	55.1	56.8	57.6	60.9
85°	28.8	28.8	28.8	27.2	27.2
87.5°	16.5	16.5	14.0	11.5	8.2
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)