

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: P557420

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-93-96-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: P557420
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-50-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

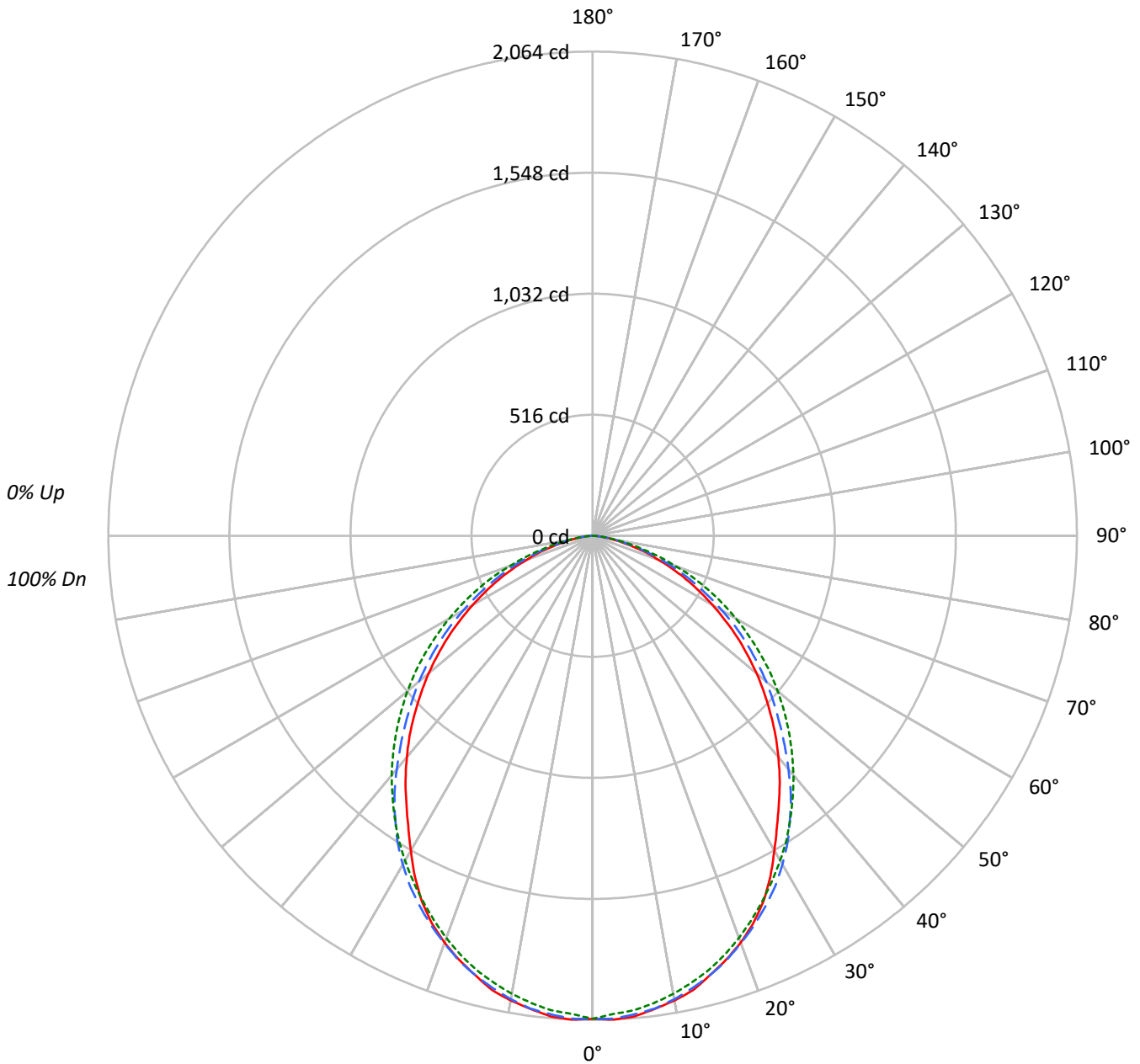
Lumens per Lamp: N/A
Luminaire Lumens: 4761.0 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5541	5541	5541
5°	5555	5532	5485
10°	5496	5481	5419
15°	5399	5399	5337
20°	5285	5292	5224
25°	5111	5174	5092
30°	4813	5029	4967
35°	4548	4820	4828
40°	4326	4560	4679
45°	4079	4284	4504
50°	3818	4037	4312
55°	3522	3756	4078
60°	3172	3427	3793
65°	2800	3047	3450
70°	2334	2596	2932
75°	1834	2072	2295
80°	1311	1458	1618
85°	855	855	806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.9	4.1
10°-20°	544.6	11.4
20°-30°	795.9	16.7
30°-40°	903.4	19.0
40°-50°	872.1	18.3
50°-60°	719.4	15.1
60°-70°	479.1	10.1
70°-80°	214.4	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°	1534.3	32.2
0°-40°	2437.7	51.2
0°-60°	4029.2	84.6
0°-90°	4761.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4761.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2059	2059	2059	2059	2059	
5°	2057	2056	2048	2037	2030	195
15°	1938	1943	1938	1929	1916	546
25°	1721	1735	1743	1730	1715	788
35°	1384	1403	1467	1475	1470	867
45°	1072	1090	1126	1177	1183	827
55°	751	763	800	845	869	670
65°	440	452	479	513	542	436
75°	176	186	199	209	221	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°	2059.0	2059.0	2059.0	2059.0	2059.0
2.5°	2064.5	2065.3	2060.6	2047.9	2040.0
5°	2056.6	2055.8	2047.9	2036.9	2030.5
7.5°	2033.7	2035.3	2032.9	2017.1	2008.4
10°	2011.5	2012.3	2006.0	1993.4	1983.1
12.5°	1983.1	1982.3	1973.6	1967.3	1950.6
15°	1938.0	1942.7	1938.0	1929.3	1915.8
17.5°	1894.5	1894.5	1897.6	1882.6	1872.3
20°	1845.4	1847.8	1847.8	1835.9	1824.1
22.5°	1788.5	1795.6	1798.0	1785.3	1771.1
25°	1721.2	1734.7	1742.6	1729.9	1714.9
27.5°	1639.8	1660.3	1684.1	1674.6	1658.0
30°	1548.8	1578.9	1618.4	1610.5	1598.6
32.5°	1462.6	1492.6	1547.2	1544.1	1537.7
35°	1384.3	1403.3	1467.3	1475.2	1469.7
37.5°	1309.9	1327.3	1387.4	1405.6	1400.9
40°	1231.6	1250.6	1298.1	1330.5	1332.1
42.5°	1154.1	1172.3	1211.0	1257.7	1257.7
45°	1071.8	1090.0	1125.6	1177.0	1183.4
47.5°	991.1	1010.1	1044.9	1096.3	1106.6
50°	912.0	929.4	964.2	1014.1	1029.9
52.5°	829.8	848.8	882.8	928.7	951.6
55°	750.7	763.3	800.5	844.8	869.3
57.5°	668.4	680.3	722.2	760.2	785.5
60°	589.3	604.3	636.8	675.5	704.8
62.5°	513.4	529.2	556.9	590.9	624.1
65°	439.8	451.7	478.6	512.6	541.8
67.5°	368.6	378.9	405.8	429.5	460.4
70°	296.6	310.1	329.9	352.8	372.6
72.5°	238.9	244.4	261.0	277.6	298.2
75°	176.4	185.9	199.3	208.8	220.7
77.5°	126.6	132.1	140.0	147.9	159.0
80°	84.6	87.0	94.1	95.7	104.4
82.5°	51.4	53.0	54.6	55.4	58.5
85°	27.7	27.7	27.7	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)