

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: P556128

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-93-84-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: P556128
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-12-2-LD4-3STD-50-UNV-93-84-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

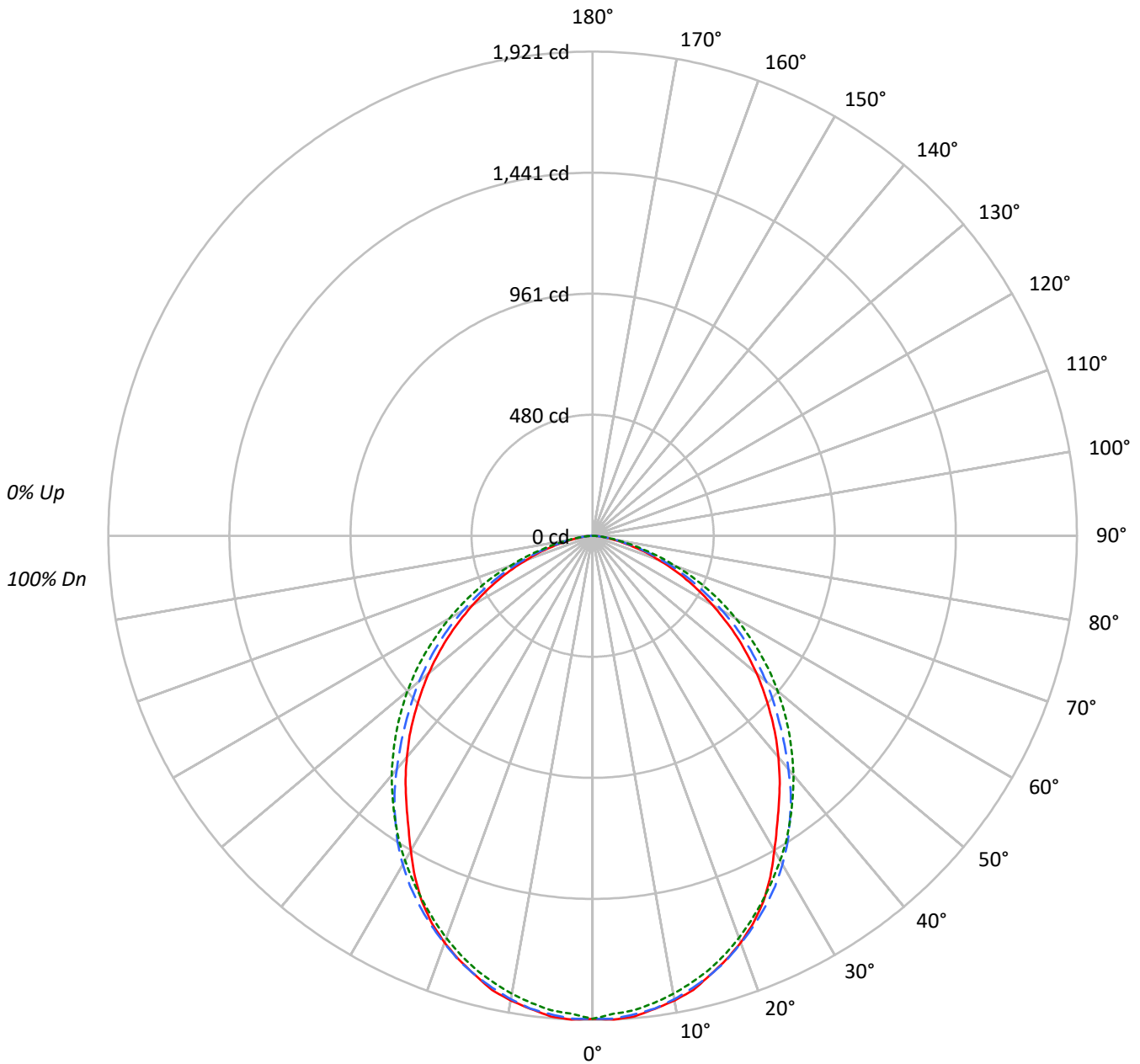
Lumens per Lamp: N/A
Luminaire Lumens: 4431.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
Input Voltage (V): NR
Input Current (A_{in}): 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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10313	10313	10313
5°	10341	10297	10210
10°	10231	10203	10086
15°	10050	10050	9935
20°	9837	9849	9723
25°	9513	9631	9478
30°	8958	9360	9246
35°	8464	8972	8987
40°	8053	8488	8710
45°	7592	7974	8382
50°	7107	7514	8025
55°	6555	6990	7592
60°	5904	6379	7060
65°	5212	5672	6422
70°	4345	4831	5456
75°	3414	3857	4271
80°	2442	2715	3013
85°	1593	1593	1501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.4	4.1
10°-20°	506.9	11.4
20°-30°	740.7	16.7
30°-40°	840.8	19.0
40°-50°	811.6	18.3
50°-60°	669.5	15.1
60°-70°	445.9	10.1
70°-80°	199.5	4.5
80°-90°	35.7	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°	1428.0	32.2
0°-40°	2268.8	51.2
0°-60°	3749.9	84.6
0°-90°	4431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4431.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1916	1916	1916	1916	1916	
5°	1914	1913	1906	1896	1890	181
15°	1804	1808	1804	1796	1783	508
25°	1602	1614	1622	1610	1596	734
35°	1288	1306	1366	1373	1368	807
45°	998	1014	1048	1095	1101	770
55°	699	710	745	786	809	624
65°	409	420	445	477	504	406
75°	164	173	186	194	205	180
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1916.3	1916.3	1916.3	1916.3	1916.3
2.5°	1921.4	1922.2	1917.8	1906.0	1898.6
5°	1914.1	1913.3	1906.0	1895.7	1889.8
7.5°	1892.7	1894.2	1892.0	1877.3	1869.2
10°	1872.1	1872.9	1867.0	1855.2	1845.6
12.5°	1845.6	1844.9	1836.8	1830.9	1815.4
15°	1803.7	1808.1	1803.7	1795.6	1783.0
17.5°	1763.2	1763.2	1766.1	1752.1	1742.6
20°	1717.5	1719.7	1719.7	1708.7	1697.6
22.5°	1664.5	1671.1	1673.4	1661.6	1648.3
25°	1601.9	1614.5	1621.8	1610.0	1596.1
27.5°	1526.1	1545.3	1567.3	1558.5	1543.0
30°	1441.5	1469.4	1506.2	1498.9	1487.8
32.5°	1361.2	1389.2	1440.0	1437.0	1431.1
35°	1288.3	1306.0	1365.6	1373.0	1367.8
37.5°	1219.1	1235.3	1291.3	1308.2	1303.8
40°	1146.2	1163.9	1208.1	1238.3	1239.7
42.5°	1074.1	1091.0	1127.1	1170.5	1170.5
45°	997.5	1014.5	1047.6	1095.4	1101.3
47.5°	922.4	940.1	972.5	1020.4	1029.9
50°	848.8	865.0	897.4	943.8	958.5
52.5°	772.3	789.9	821.6	864.3	885.6
55°	698.6	710.4	745.0	786.2	809.1
57.5°	622.1	633.1	672.1	707.5	731.0
60°	548.5	562.4	592.6	628.7	655.9
62.5°	477.8	492.5	518.3	549.9	580.9
65°	409.3	420.4	445.4	477.0	504.3
67.5°	343.1	352.6	377.7	399.7	428.5
70°	276.1	288.6	307.0	328.3	346.7
72.5°	222.3	227.5	242.9	258.4	277.5
75°	164.2	173.0	185.5	194.4	205.4
77.5°	117.8	122.9	130.3	137.7	148.0
80°	78.8	81.0	87.6	89.1	97.2
82.5°	47.9	49.3	50.8	51.5	54.5
85°	25.8	25.8	25.8	24.3	24.3
87.5°	14.7	14.7	12.5	10.3	7.4
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)