

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: P556133

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-93-86-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: P556133
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-93-86-EDD
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

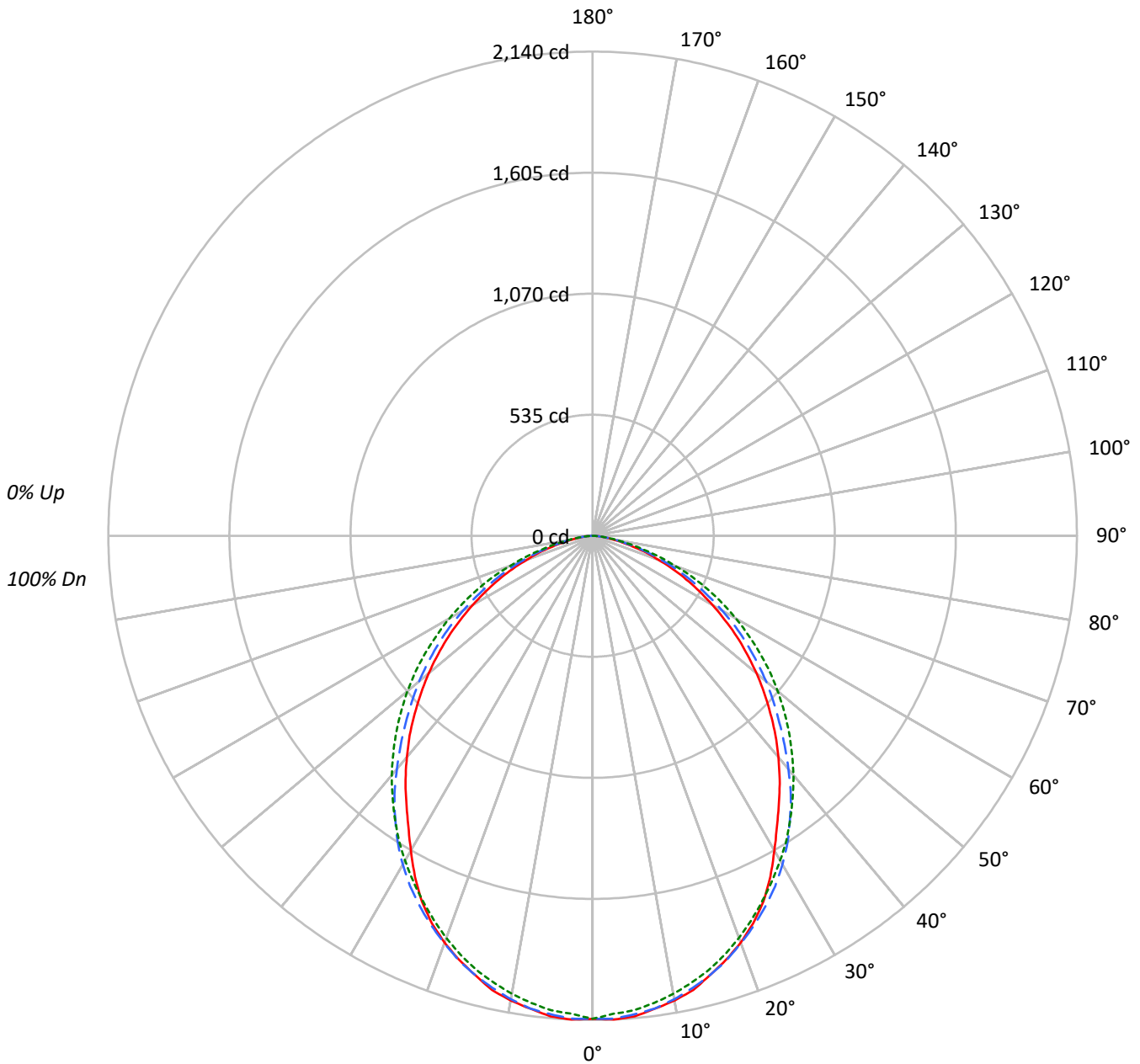
Lumens per Lamp: N/A
Luminaire Lumens: 4936.0 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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					
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								
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°	11489	11489	11489
5°	11519	11471	11373
10°	11397	11366	11236
15°	11195	11195	11067
20°	10958	10972	10831
25°	10597	10729	10558
30°	9979	10427	10300
35°	9429	9995	10011
40°	8971	9455	9702
45°	8458	8882	9338
50°	7917	8370	8941
55°	7303	7787	8457
60°	6577	7106	7865
65°	5807	6319	7154
70°	4839	5382	6079
75°	3803	4298	4758
80°	2718	3025	3357
85°	1772	1772	1673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.0	4.1
10°-20°	564.6	11.4
20°-30°	825.1	16.7
30°-40°	936.6	19.0
40°-50°	904.1	18.3
50°-60°	745.9	15.1
60°-70°	496.7	10.1
70°-80°	222.3	4.5
80°-90°	39.8	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°	1590.7	32.2
0°-40°	2527.3	51.2
0°-60°	4177.3	84.6
0°-90°	4936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2135	2135	2135	2135	2135	
5°	2132	2131	2123	2112	2105	202
15°	2009	2014	2009	2000	1986	566
25°	1784	1798	1807	1794	1778	817
35°	1435	1455	1521	1530	1524	899
45°	1111	1130	1167	1220	1227	857
55°	778	791	830	876	901	695
65°	456	468	496	531	562	452
75°	183	193	207	216	229	200
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°	2134.7	2134.7	2134.7	2134.7	2134.7
2.5°	2140.4	2141.3	2136.3	2123.2	2115.0
5°	2132.2	2131.4	2123.2	2111.7	2105.2
7.5°	2108.4	2110.1	2107.6	2091.2	2082.2
10°	2085.5	2086.3	2079.7	2066.6	2056.0
12.5°	2056.0	2055.1	2046.1	2039.6	2022.3
15°	2009.2	2014.1	2009.2	2000.2	1986.3
17.5°	1964.1	1964.1	1967.4	1951.8	1941.2
20°	1913.3	1915.7	1915.7	1903.4	1891.1
22.5°	1854.2	1861.6	1864.1	1850.9	1836.2
25°	1784.5	1798.5	1806.7	1793.5	1778.0
27.5°	1700.0	1721.4	1746.0	1736.1	1718.9
30°	1605.7	1636.9	1677.9	1669.7	1657.4
32.5°	1516.3	1547.5	1604.1	1600.8	1594.3
35°	1435.2	1454.8	1521.3	1529.5	1523.7
37.5°	1358.1	1376.1	1438.4	1457.3	1452.4
40°	1276.9	1296.6	1345.8	1379.4	1381.0
42.5°	1196.5	1215.4	1255.6	1303.9	1303.9
45°	1111.2	1130.1	1167.0	1220.3	1226.9
47.5°	1027.6	1047.3	1083.3	1136.6	1147.3
50°	945.6	963.6	999.7	1051.4	1067.8
52.5°	860.3	880.0	915.2	962.8	986.6
55°	778.3	791.4	829.9	875.9	901.3
57.5°	693.0	705.3	748.7	788.1	814.3
60°	611.0	626.5	660.2	700.4	730.7
62.5°	532.2	548.6	577.3	612.6	647.1
65°	456.0	468.3	496.2	531.4	561.8
67.5°	382.2	392.8	420.7	445.3	477.3
70°	307.5	321.5	342.0	365.8	386.3
72.5°	247.7	253.4	270.6	287.9	309.2
75°	182.9	192.7	206.7	216.5	228.8
77.5°	131.2	137.0	145.2	153.4	164.8
80°	87.7	90.2	97.6	99.2	108.3
82.5°	53.3	54.9	56.6	57.4	60.7
85°	28.7	28.7	28.7	27.1	27.1
87.5°	16.4	16.4	13.9	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)