

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: P556106

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-81-94-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: P556106
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-81-94-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

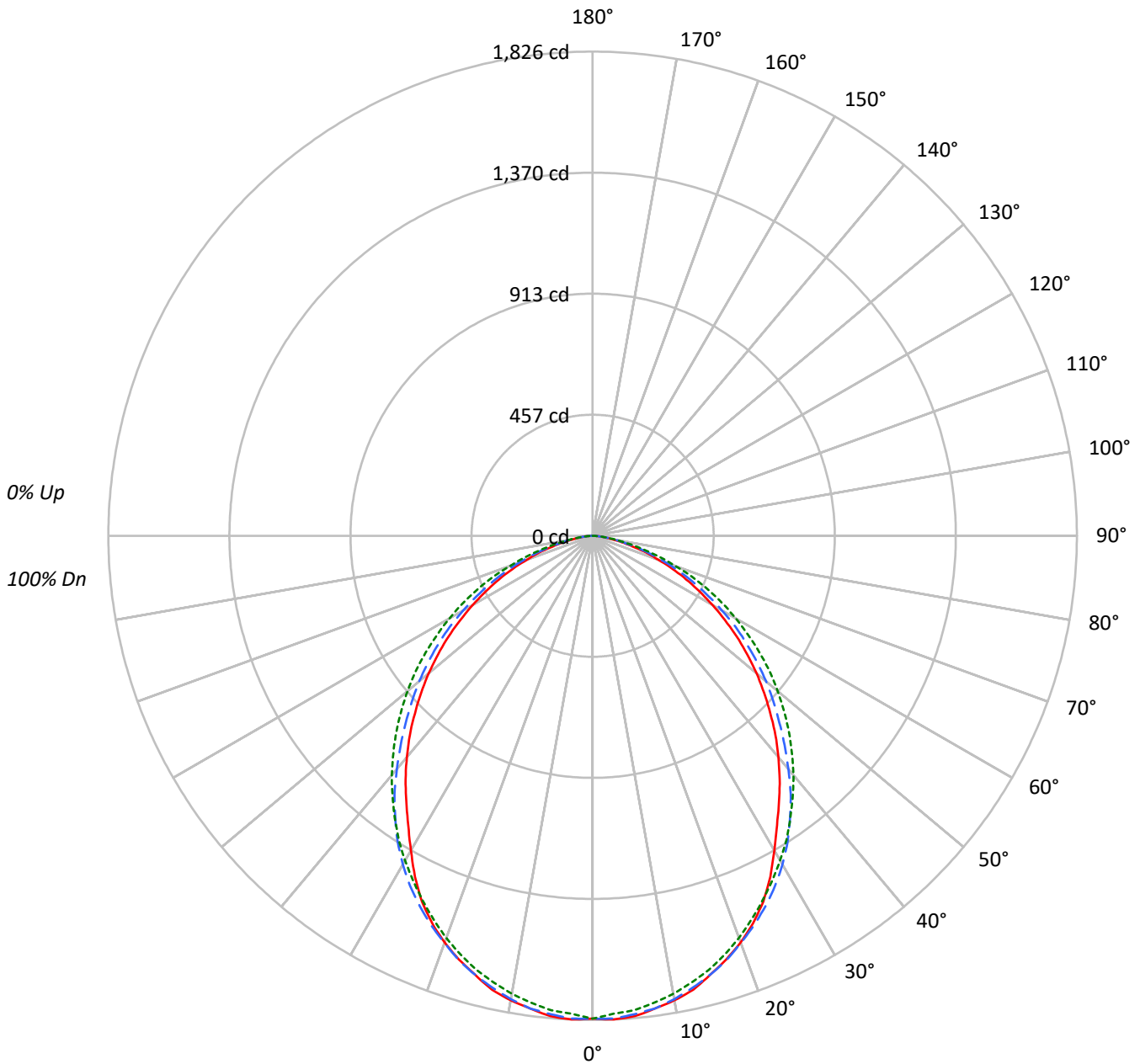
Lumens per Lamp: N/A
Luminaire Lumens: 4211.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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									
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°	9801	9801	9801
5°	9827	9786	9703
10°	9723	9697	9586
15°	9551	9551	9441
20°	9348	9360	9241
25°	9041	9153	9007
30°	8513	8896	8787
35°	8045	8527	8541
40°	7653	8066	8278
45°	7215	7578	7967
50°	6754	7141	7627
55°	6230	6643	7215
60°	5610	6062	6710
65°	4954	5391	6103
70°	4129	4590	5185
75°	3244	3666	4059
80°	2321	2582	2864
85°	1513	1513	1426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.5	4.1
10°-20°	481.7	11.4
20°-30°	703.9	16.7
30°-40°	799.0	19.0
40°-50°	771.3	18.3
50°-60°	636.3	15.1
60°-70°	423.7	10.1
70°-80°	189.6	4.5
80°-90°	33.9	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°	1357.1	32.2
0°-40°	2156.1	51.2
0°-60°	3563.8	84.6
0°-90°	4211.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4211.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1821	1821	1821	1821	1821	
5°	1819	1818	1811	1802	1796	172
15°	1714	1718	1714	1706	1694	483
25°	1522	1534	1541	1530	1517	697
35°	1224	1241	1298	1305	1300	767
45°	948	964	996	1041	1047	731
55°	664	675	708	747	769	593
65°	389	400	423	453	479	386
75°	156	164	176	185	195	171
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1821.1	1821.1	1821.1	1821.1	1821.1
2.5°	1826.0	1826.7	1822.5	1811.4	1804.4
5°	1819.0	1818.4	1811.4	1801.6	1796.0
7.5°	1798.8	1800.2	1798.1	1784.1	1776.4
10°	1779.2	1779.9	1774.3	1763.1	1754.0
12.5°	1754.0	1753.3	1745.6	1740.0	1725.3
15°	1714.1	1718.3	1714.1	1706.4	1694.5
17.5°	1675.6	1675.6	1678.4	1665.1	1656.0
20°	1632.2	1634.3	1634.3	1623.9	1613.4
22.5°	1581.9	1588.2	1590.3	1579.1	1566.5
25°	1522.4	1534.3	1541.3	1530.1	1516.8
27.5°	1450.3	1468.5	1489.5	1481.1	1466.4
30°	1369.9	1396.5	1431.5	1424.5	1414.0
32.5°	1293.6	1320.2	1368.5	1365.7	1360.1
35°	1224.4	1241.2	1297.8	1304.8	1299.9
37.5°	1158.6	1174.0	1227.2	1243.3	1239.1
40°	1089.3	1106.1	1148.1	1176.8	1178.2
42.5°	1020.8	1036.9	1071.1	1112.4	1112.4
45°	948.0	964.1	995.6	1041.1	1046.7
47.5°	876.6	893.4	924.2	969.7	978.8
50°	806.7	822.1	852.9	896.9	910.9
52.5°	733.9	750.7	780.8	821.4	841.7
55°	664.0	675.1	708.0	747.2	768.9
57.5°	591.2	601.7	638.8	672.3	694.7
60°	521.2	534.5	563.2	597.5	623.4
62.5°	454.1	468.1	492.5	522.6	552.0
65°	389.0	399.5	423.3	453.4	479.2
67.5°	326.0	335.1	358.9	379.9	407.2
70°	262.4	274.3	291.7	312.0	329.5
72.5°	211.3	216.2	230.9	245.6	263.8
75°	156.0	164.4	176.3	184.7	195.2
77.5°	111.9	116.8	123.8	130.8	140.6
80°	74.9	77.0	83.3	84.7	92.4
82.5°	45.5	46.9	48.3	49.0	51.8
85°	24.5	24.5	24.5	23.1	23.1
87.5°	14.0	14.0	11.9	9.8	7.0
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)