

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: P556002

Luminaire Tested: **FUSL-12-2-LD4-3STD-35-UNV-93-85-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: P556002
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-35-UNV-93-85-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

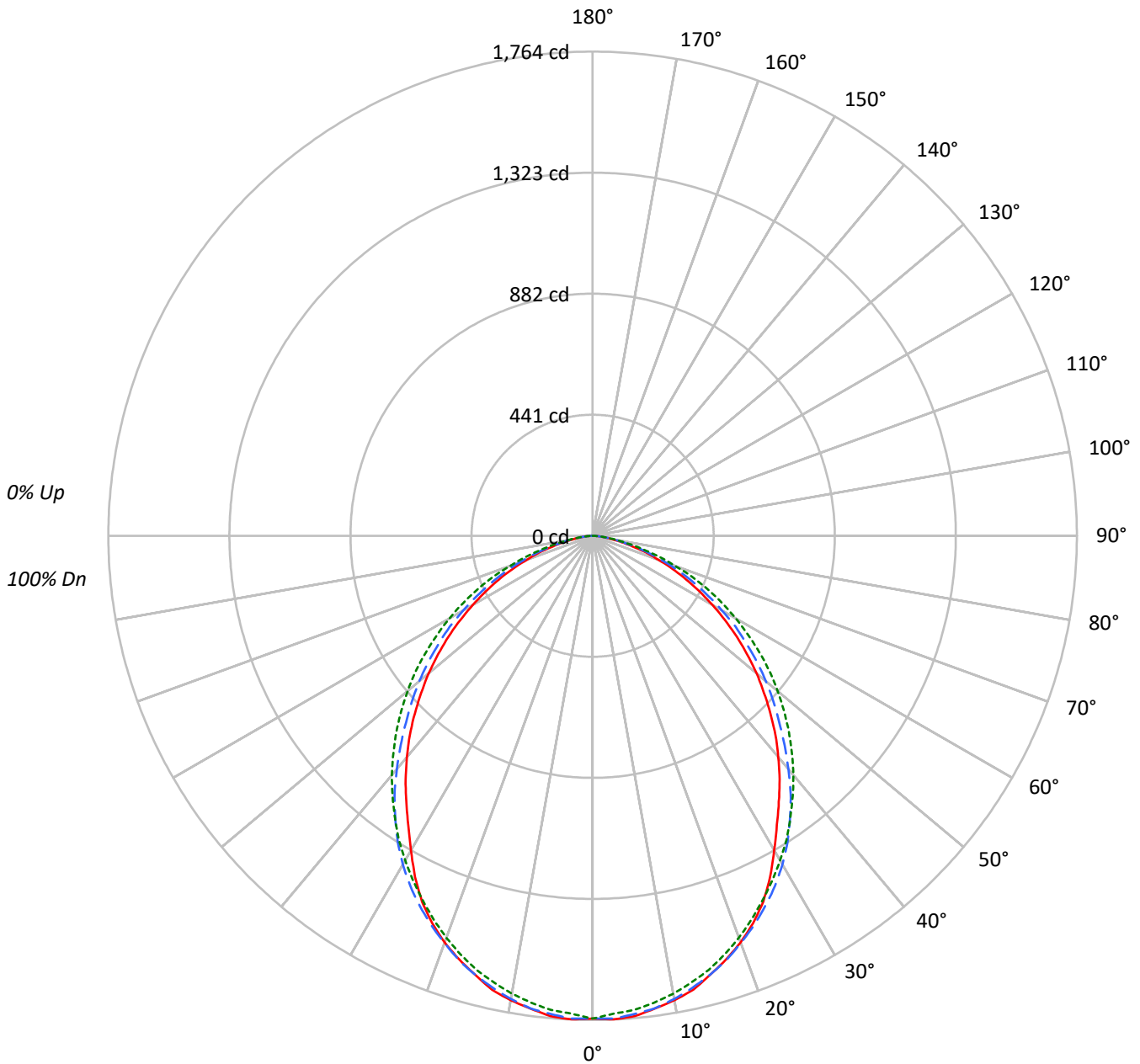
Lumens per Lamp: N/A
Luminaire Lumens: 4067.0 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9466	9466	9466
5°	9491	9451	9371
10°	9390	9365	9258
15°	9224	9224	9119
20°	9029	9041	8924
25°	8731	8840	8699
30°	8222	8592	8487
35°	7769	8235	8249
40°	7392	7790	7994
45°	6969	7318	7694
50°	6523	6897	7366
55°	6016	6416	6968
60°	5419	5854	6481
65°	4784	5206	5895
70°	3987	4434	5009
75°	3134	3541	3920
80°	2241	2492	2765
85°	1457	1457	1377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	4.1
10°-20°	465.2	11.4
20°-30°	679.8	16.7
30°-40°	771.7	19.0
40°-50°	745.0	18.3
50°-60°	614.5	15.1
60°-70°	409.2	10.1
70°-80°	183.1	4.5
80°-90°	32.8	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°	1310.7	32.2
0°-40°	2082.4	51.2
0°-60°	3441.9	84.6
0°-90°	4067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4067.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1759	1759	1759	1759	1759	
5°	1757	1756	1749	1740	1734	166
15°	1656	1660	1656	1648	1637	467
25°	1470	1482	1489	1478	1465	673
35°	1182	1199	1253	1260	1256	741
45°	916	931	962	1006	1011	706
55°	641	652	684	722	743	572
65°	376	386	409	438	463	373
75°	151	159	170	178	188	165
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1758.9	1758.9	1758.9	1758.9	1758.9
2.5°	1763.6	1764.3	1760.2	1749.4	1742.7
5°	1756.8	1756.2	1749.4	1740.0	1734.5
7.5°	1737.2	1738.6	1736.6	1723.1	1715.6
10°	1718.3	1719.0	1713.6	1702.8	1694.0
12.5°	1694.0	1693.3	1685.9	1680.5	1666.3
15°	1655.5	1659.5	1655.5	1648.1	1636.6
17.5°	1618.3	1618.3	1621.0	1608.2	1599.4
20°	1576.4	1578.5	1578.5	1568.3	1558.2
22.5°	1527.8	1533.9	1535.9	1525.1	1512.9
25°	1470.3	1481.8	1488.6	1477.8	1464.9
27.5°	1400.7	1418.3	1438.6	1430.5	1416.3
30°	1323.0	1348.7	1382.5	1375.7	1365.6
32.5°	1249.4	1275.1	1321.7	1319.0	1313.6
35°	1182.5	1198.7	1253.4	1260.2	1255.5
37.5°	1119.0	1133.8	1185.2	1200.7	1196.7
40°	1052.1	1068.3	1108.8	1136.5	1137.9
42.5°	985.9	1001.4	1034.5	1074.4	1074.4
45°	915.6	931.1	961.5	1005.5	1010.9
47.5°	846.7	862.9	892.6	936.5	945.3
50°	779.1	794.0	823.7	866.3	879.8
52.5°	708.8	725.0	754.1	793.3	812.9
55°	641.2	652.1	683.8	721.7	742.6
57.5°	571.0	581.1	616.9	649.4	671.0
60°	503.4	516.2	543.9	577.1	602.1
62.5°	438.5	452.0	475.7	504.8	533.1
65°	375.7	385.8	408.8	437.9	462.9
67.5°	314.9	323.7	346.6	366.9	393.3
70°	253.4	264.9	281.8	301.4	318.3
72.5°	204.1	208.8	223.0	237.2	254.7
75°	150.7	158.8	170.3	178.4	188.5
77.5°	108.1	112.8	119.6	126.4	135.8
80°	72.3	74.3	80.4	81.8	89.2
82.5°	43.9	45.3	46.6	47.3	50.0
85°	23.6	23.6	23.6	22.3	22.3
87.5°	13.5	13.5	11.5	9.5	6.8
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)