

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: P556068

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-86-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: P556068
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-40-UNV-93-86-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

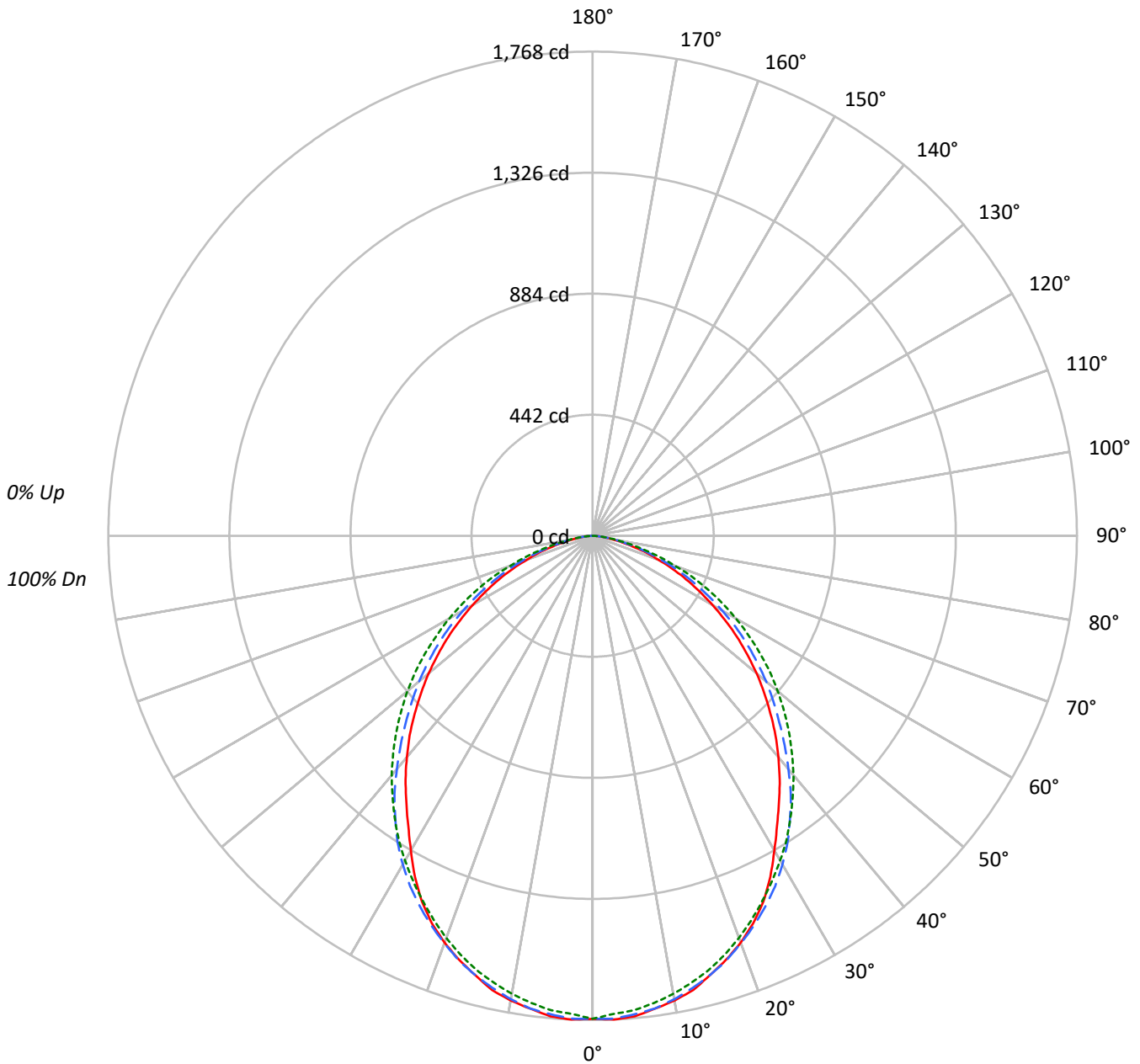
Lumens per Lamp: N/A
Luminaire Lumens: 4078.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9492	9492	9492
5°	9517	9477	9396
10°	9416	9390	9283
15°	9249	9249	9143
20°	9053	9065	8948
25°	8755	8864	8723
30°	8244	8615	8510
35°	7790	8257	8271
40°	7411	7811	8016
45°	6988	7338	7715
50°	6541	6915	7387
55°	6033	6434	6987
60°	5434	5871	6498
65°	4797	5220	5910
70°	3998	4445	5021
75°	3142	3550	3930
80°	2247	2498	2771
85°	1463	1463	1383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.1	4.1
10°-20°	466.5	11.4
20°-30°	681.7	16.7
30°-40°	773.8	19.0
40°-50°	747.0	18.3
50°-60°	616.2	15.1
60°-70°	410.3	10.1
70°-80°	183.6	4.5
80°-90°	32.9	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°	1314.2	32.2
0°-40°	2088.0	51.2
0°-60°	3451.2	84.6
0°-90°	4078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4078.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1764	1764	1764	1764	1764	
5°	1762	1761	1754	1745	1739	167
15°	1660	1664	1660	1652	1641	468
25°	1474	1486	1493	1482	1469	675
35°	1186	1202	1257	1264	1259	743
45°	918	934	964	1008	1014	708
55°	643	654	686	724	745	574
65°	377	387	410	439	464	374
75°	151	159	171	179	189	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°	1763.6	1763.6	1763.6	1763.6	1763.6
2.5°	1768.4	1769.0	1765.0	1754.1	1747.4
5°	1761.6	1760.9	1754.1	1744.7	1739.2
7.5°	1741.9	1743.3	1741.3	1727.7	1720.3
10°	1723.0	1723.7	1718.2	1707.4	1698.6
12.5°	1698.6	1697.9	1690.5	1685.0	1670.8
15°	1660.0	1664.0	1660.0	1652.5	1641.0
17.5°	1622.7	1622.7	1625.4	1612.5	1603.7
20°	1580.7	1582.7	1582.7	1572.6	1562.4
22.5°	1531.9	1538.0	1540.0	1529.2	1517.0
25°	1474.3	1485.8	1492.6	1481.8	1468.9
27.5°	1404.5	1422.2	1442.5	1434.3	1420.1
30°	1326.6	1352.4	1386.2	1379.5	1369.3
32.5°	1252.8	1278.5	1325.3	1322.6	1317.1
35°	1185.7	1202.0	1256.8	1263.6	1258.9
37.5°	1122.0	1136.9	1188.4	1204.0	1199.9
40°	1054.9	1071.2	1111.8	1139.6	1141.0
42.5°	988.5	1004.1	1037.3	1077.3	1077.3
45°	918.1	933.6	964.1	1008.2	1013.6
47.5°	849.0	865.2	895.0	939.1	947.9
50°	781.2	796.1	825.9	868.6	882.2
52.5°	710.7	727.0	756.1	795.4	815.1
55°	643.0	653.8	685.7	723.6	744.6
57.5°	572.5	582.7	618.6	651.1	672.8
60°	504.8	517.6	545.4	578.6	603.7
62.5°	439.7	453.3	477.0	506.1	534.6
65°	376.7	386.9	409.9	439.0	464.1
67.5°	315.7	324.5	347.6	367.9	394.3
70°	254.1	265.6	282.5	302.2	319.1
72.5°	204.6	209.4	223.6	237.8	255.4
75°	151.1	159.2	170.7	178.9	189.0
77.5°	108.4	113.1	119.9	126.7	136.2
80°	72.5	74.5	80.6	82.0	89.4
82.5°	44.0	45.4	46.8	47.4	50.1
85°	23.7	23.7	23.7	22.4	22.4
87.5°	13.6	13.6	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)