

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: P556851

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-80-85-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: P556851
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-12-4-LD4-1STD-50-UNV-80-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

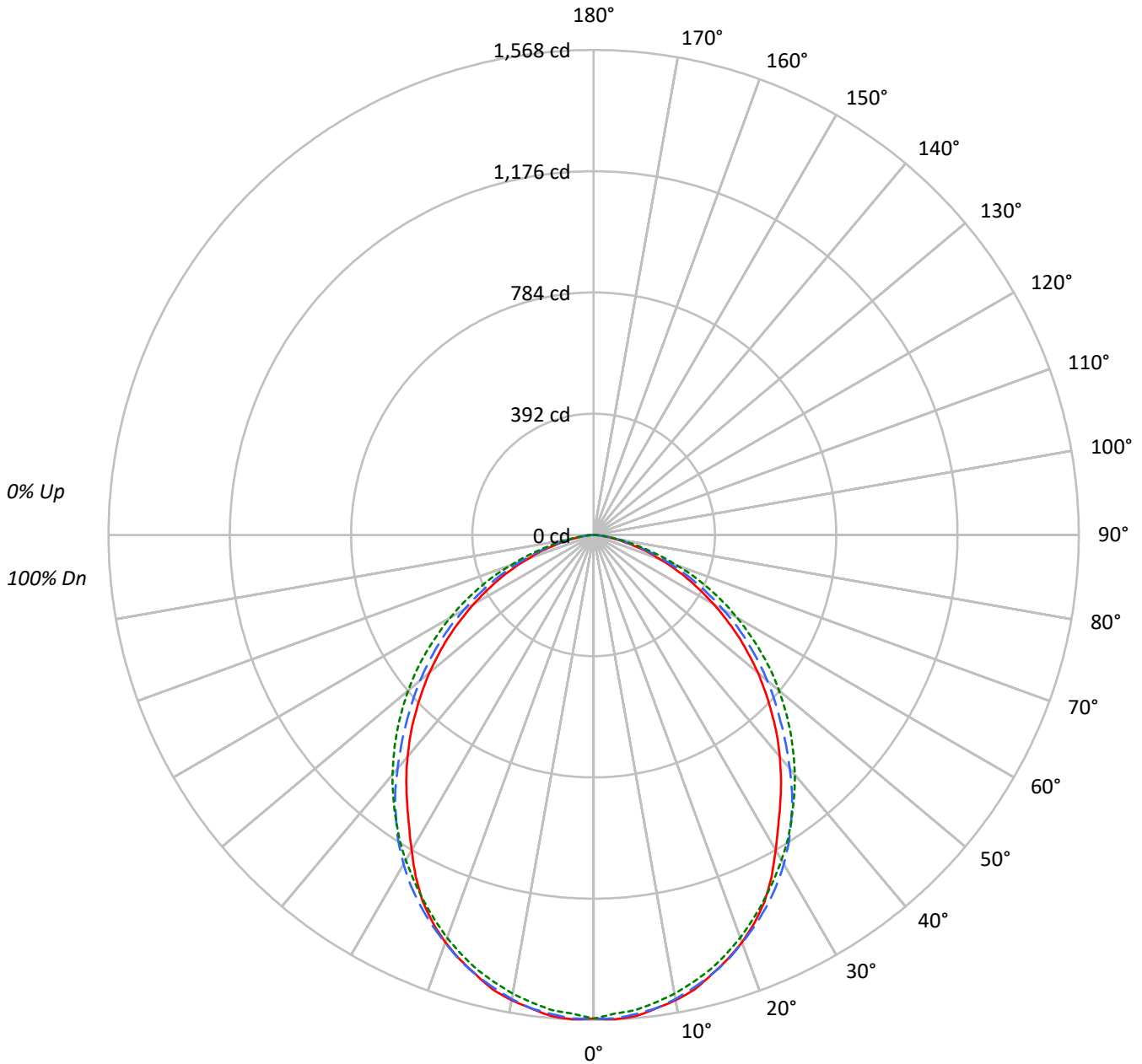
Lumens per Lamp: N/A
Luminaire Lumens: 3616.0 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P556851

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-80-85-EDD

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°	4208	4208	4208
5°	4219	4202	4166
10°	4175	4163	4116
15°	4101	4101	4054
20°	4014	4019	3967
25°	3882	3930	3867
30°	3655	3819	3773
35°	3454	3661	3667
40°	3286	3463	3554
45°	3098	3253	3420
50°	2900	3066	3275
55°	2675	2852	3098
60°	2409	2603	2881
65°	2127	2315	2620
70°	1773	1971	2227
75°	1393	1574	1743
80°	996	1108	1229
85°	648	648	611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.2	4.1
10°-20°	413.6	11.4
20°-30°	604.5	16.7
30°-40°	686.1	19.0
40°-50°	662.4	18.3
50°-60°	546.4	15.1
60°-70°	363.8	10.1
70°-80°	162.8	4.5
80°-90°	29.1	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°	1165.3	32.2
0°-40°	1851.5	51.2
0°-60°	3060.2	84.6
0°-90°	3616.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3616.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1564	1564	1564	1564	1564	
5°	1562	1561	1555	1547	1542	148
15°	1472	1476	1472	1465	1455	415
25°	1307	1318	1324	1314	1302	599
35°	1051	1066	1114	1120	1116	659
45°	814	828	855	894	899	628
55°	570	580	608	642	660	509
65°	334	343	364	389	412	331
75°	134	141	151	159	168	146
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1563.8	1563.8	1563.8	1563.8	1563.8
2.5°	1568.0	1568.6	1565.0	1555.4	1549.4
5°	1562.0	1561.4	1555.4	1547.0	1542.2
7.5°	1544.6	1545.8	1544.0	1532.0	1525.4
10°	1527.8	1528.4	1523.6	1514.0	1506.2
12.5°	1506.2	1505.6	1498.9	1494.1	1481.5
15°	1471.9	1475.5	1471.9	1465.3	1455.1
17.5°	1438.9	1438.9	1441.3	1429.9	1422.0
20°	1401.6	1403.4	1403.4	1394.4	1385.4
22.5°	1358.4	1363.8	1365.6	1356.0	1345.1
25°	1307.3	1317.5	1323.5	1313.9	1302.5
27.5°	1245.4	1261.0	1279.1	1271.8	1259.2
30°	1176.3	1199.2	1229.2	1223.2	1214.2
32.5°	1110.8	1133.7	1175.1	1172.7	1167.9
35°	1051.4	1065.8	1114.4	1120.5	1116.2
37.5°	994.9	1008.1	1053.8	1067.6	1064.0
40°	935.4	949.8	985.9	1010.5	1011.7
42.5°	876.5	890.4	919.8	955.2	955.2
45°	814.1	827.9	854.9	894.0	898.8
47.5°	752.8	767.2	793.6	832.7	840.5
50°	692.7	705.9	732.3	770.2	782.2
52.5°	630.2	644.6	670.5	705.3	722.7
55°	570.1	579.8	608.0	641.6	660.3
57.5°	507.7	516.7	548.5	577.3	596.6
60°	447.6	459.0	483.6	513.1	535.3
62.5°	389.9	401.9	422.9	448.8	474.0
65°	334.0	343.0	363.5	389.3	411.5
67.5°	280.0	287.8	308.2	326.2	349.7
70°	225.3	235.5	250.5	267.9	283.0
72.5°	181.4	185.6	198.3	210.9	226.5
75°	134.0	141.2	151.4	158.6	167.6
77.5°	96.1	100.3	106.3	112.3	120.8
80°	64.3	66.1	71.5	72.7	79.3
82.5°	39.1	40.3	41.5	42.1	44.5
85°	21.0	21.0	21.0	19.8	19.8
87.5°	12.0	12.0	10.2	8.4	6.0
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)