

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: P557384

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-81-88-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: P557384
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-LD4-2LO-50-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

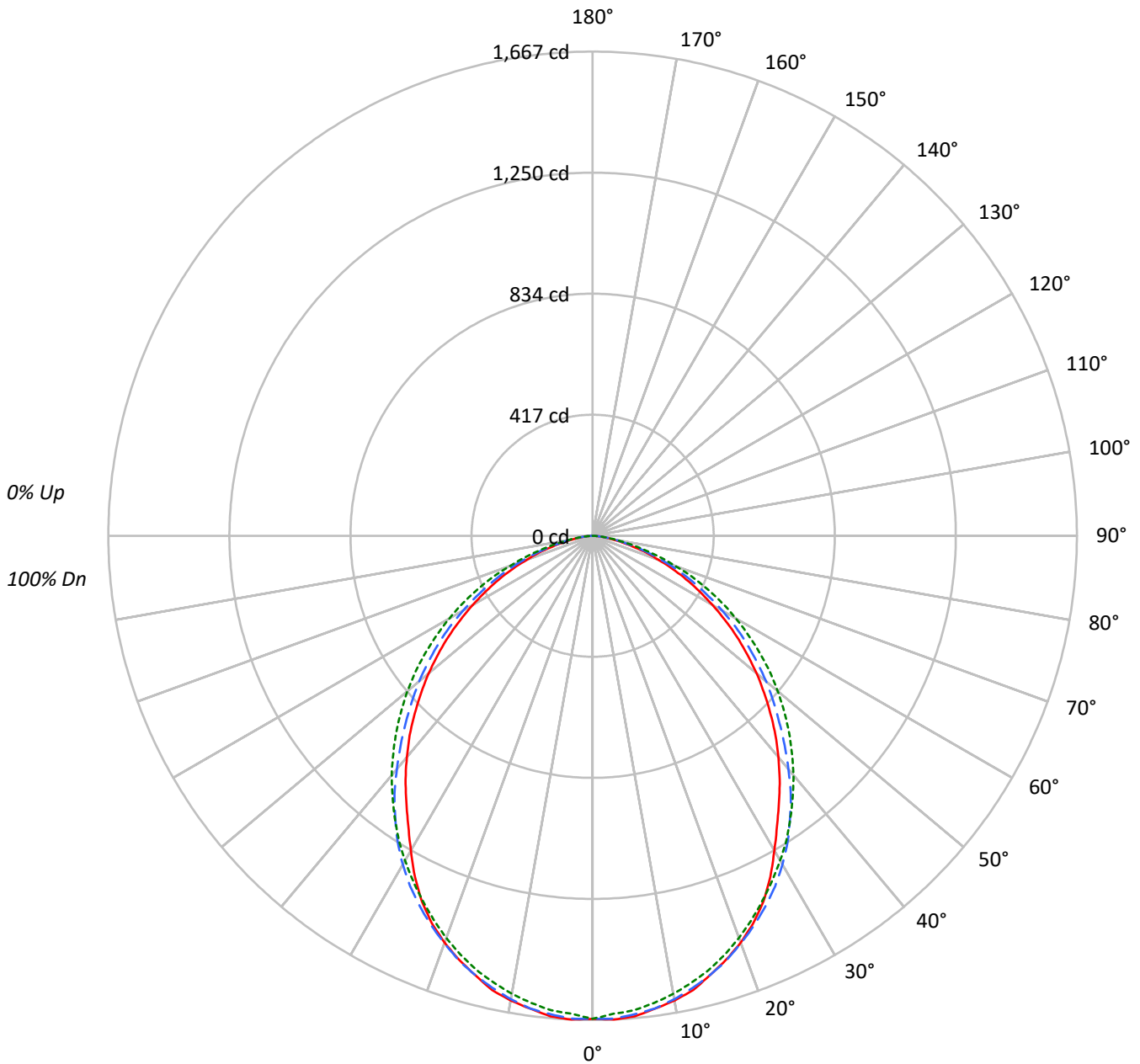
Lumens per Lamp: N/A
Luminaire Lumens: 3845.0 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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

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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°	4475	4475	4475
5°	4487	4468	4430
10°	4439	4427	4376
15°	4360	4360	4310
20°	4268	4273	4218
25°	4127	4179	4112
30°	3887	4061	4012
35°	3672	3893	3899
40°	3494	3682	3779
45°	3294	3459	3637
50°	3084	3260	3482
55°	2844	3033	3294
60°	2561	2768	3063
65°	2262	2461	2786
70°	1885	2096	2367
75°	1482	1674	1853
80°	1060	1178	1306
85°	692	692	651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.6	4.1
10°-20°	439.8	11.4
20°-30°	642.7	16.7
30°-40°	729.6	19.0
40°-50°	704.3	18.3
50°-60°	581.0	15.1
60°-70°	386.9	10.1
70°-80°	173.1	4.5
80°-90°	31.0	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°	1239.1	32.2
0°-40°	1968.7	51.2
0°-60°	3254.0	84.6
0°-90°	3845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3845.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1661	1660	1654	1645	1640	157
15°	1565	1569	1565	1558	1547	441
25°	1390	1401	1407	1397	1385	637
35°	1118	1133	1185	1191	1187	700
45°	866	880	909	951	956	668
55°	606	616	646	682	702	541
65°	355	365	386	414	438	352
75°	142	150	161	169	178	156
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1662.9	1662.9	1662.9	1662.9	1662.9
2.5°	1667.3	1668.0	1664.1	1653.9	1647.5
5°	1660.9	1660.3	1653.9	1645.0	1639.9
7.5°	1642.4	1643.7	1641.8	1629.0	1622.0
10°	1624.5	1625.2	1620.1	1609.8	1601.5
12.5°	1601.5	1600.9	1593.9	1588.8	1575.3
15°	1565.1	1569.0	1565.1	1558.1	1547.2
17.5°	1530.0	1530.0	1532.5	1520.4	1512.1
20°	1490.4	1492.3	1492.3	1482.7	1473.1
22.5°	1444.4	1450.1	1452.1	1441.8	1430.3
25°	1390.1	1400.9	1407.3	1397.1	1385.0
27.5°	1324.3	1340.9	1360.1	1352.4	1339.0
30°	1250.8	1275.1	1307.0	1300.6	1291.1
32.5°	1181.2	1205.5	1249.5	1247.0	1241.9
35°	1117.9	1133.3	1185.0	1191.4	1186.9
37.5°	1057.9	1071.9	1120.5	1135.2	1131.4
40°	994.7	1010.0	1048.3	1074.5	1075.8
42.5°	932.0	946.7	978.0	1015.7	1015.7
45°	865.6	880.3	909.0	950.6	955.7
47.5°	800.4	815.8	843.9	885.4	893.7
50°	736.6	750.6	778.7	819.0	831.8
52.5°	670.1	685.5	712.9	750.0	768.5
55°	606.2	616.5	646.5	682.3	702.1
57.5°	539.8	549.4	583.2	613.9	634.4
60°	475.9	488.1	514.3	545.6	569.2
62.5°	414.6	427.4	449.7	477.2	504.0
65°	355.2	364.8	386.5	414.0	437.6
67.5°	297.7	306.0	327.7	346.9	371.8
70°	239.6	250.4	266.4	284.9	300.9
72.5°	192.9	197.4	210.8	224.2	240.8
75°	142.5	150.1	161.0	168.6	178.2
77.5°	102.2	106.7	113.1	119.5	128.4
80°	68.4	70.3	76.0	77.3	84.3
82.5°	41.5	42.8	44.1	44.7	47.3
85°	22.4	22.4	22.4	21.1	21.1
87.5°	12.8	12.8	10.9	8.9	6.4
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)