

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: P556336

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-84-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: P556336
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-LD4-1HI-50-UNV-80-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

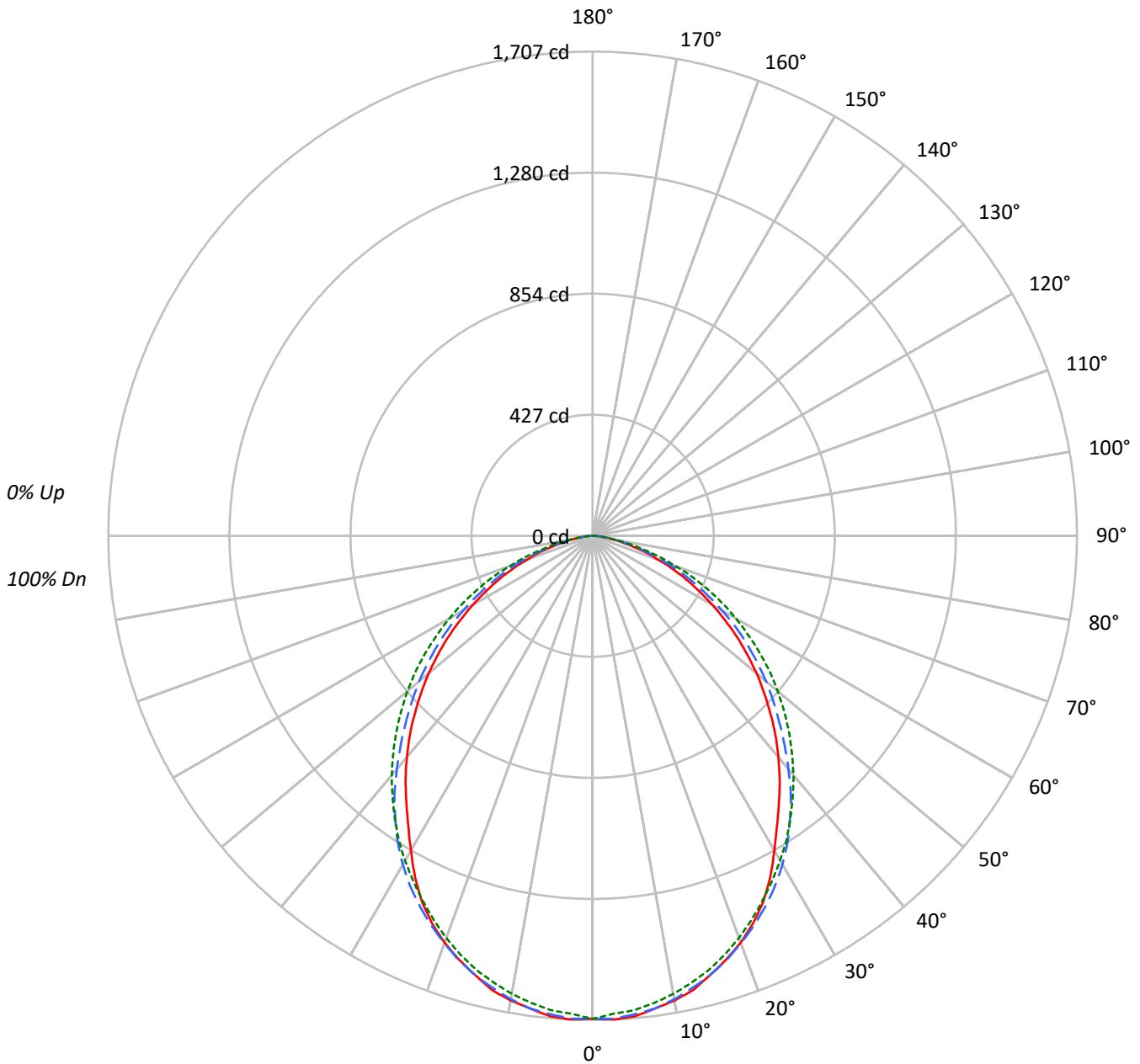
Lumens per Lamp: N/A
Luminaire Lumens: 3937.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4582	4582	4582
5°	4594	4575	4536
10°	4545	4533	4481
15°	4465	4465	4414
20°	4370	4376	4320
25°	4226	4279	4211
30°	3979	4158	4108
35°	3760	3986	3992
40°	3578	3771	3869
45°	3373	3542	3724
50°	3157	3338	3566
55°	2913	3106	3373
60°	2623	2834	3137
65°	2316	2520	2853
70°	1930	2146	2424
75°	1517	1713	1897
80°	1085	1206	1337
85°	707	707	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	4.1
10°-20°	450.4	11.4
20°-30°	658.1	16.7
30°-40°	747.0	19.0
40°-50°	721.1	18.3
50°-60°	594.9	15.1
60°-70°	396.2	10.1
70°-80°	177.3	4.5
80°-90°	31.7	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°	1268.8	32.2
0°-40°	2015.8	51.2
0°-60°	3331.9	84.6
0°-90°	3937.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3937.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1703	1703	1703	1703	1703	
5°	1701	1700	1694	1684	1679	161
15°	1603	1606	1603	1595	1584	452
25°	1423	1434	1441	1430	1418	652
35°	1145	1160	1213	1220	1215	717
45°	886	901	931	973	978	684
55°	621	631	662	699	719	554
65°	364	374	396	424	448	361
75°	146	154	165	173	182	160
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1702.7	1702.7	1702.7	1702.7	1702.7
2.5°	1707.2	1707.9	1704.0	1693.5	1687.0
5°	1700.7	1700.0	1693.5	1684.3	1679.1
7.5°	1681.7	1683.0	1681.1	1668.0	1660.8
10°	1663.4	1664.1	1658.8	1648.4	1639.9
12.5°	1639.9	1639.2	1632.0	1626.8	1613.0
15°	1602.6	1606.5	1602.6	1595.4	1584.3
17.5°	1566.6	1566.6	1569.2	1556.8	1548.3
20°	1526.0	1528.0	1528.0	1518.2	1508.4
22.5°	1478.9	1484.8	1486.8	1476.3	1464.6
25°	1423.3	1434.5	1441.0	1430.5	1418.1
27.5°	1356.0	1373.0	1392.6	1384.8	1371.0
30°	1280.7	1305.6	1338.3	1331.8	1322.0
32.5°	1209.5	1234.3	1279.4	1276.8	1271.6
35°	1144.7	1160.4	1213.4	1219.9	1215.3
37.5°	1083.2	1097.6	1147.3	1162.4	1158.4
40°	1018.5	1034.1	1073.4	1100.2	1101.5
42.5°	954.3	969.4	1001.4	1040.0	1040.0
45°	886.3	901.4	930.8	973.3	978.5
47.5°	819.6	835.3	864.1	906.6	915.1
50°	754.2	768.6	797.4	838.6	851.7
52.5°	686.2	701.9	730.0	767.9	786.9
55°	620.8	631.2	662.0	698.6	718.9
57.5°	552.7	562.5	597.2	628.6	649.5
60°	487.3	499.7	526.6	558.6	582.8
62.5°	424.5	437.6	460.5	488.6	516.1
65°	363.7	373.5	395.7	423.9	448.1
67.5°	304.8	313.3	335.6	355.2	380.7
70°	245.3	256.4	272.8	291.7	308.1
72.5°	197.5	202.1	215.9	229.6	246.6
75°	145.9	153.7	164.8	172.7	182.5
77.5°	104.7	109.2	115.8	122.3	131.5
80°	70.0	72.0	77.8	79.1	86.3
82.5°	42.5	43.8	45.1	45.8	48.4
85°	22.9	22.9	22.9	21.6	21.6
87.5°	13.1	13.1	11.1	9.2	6.5
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)