

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: P556384

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-84-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: P556384
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

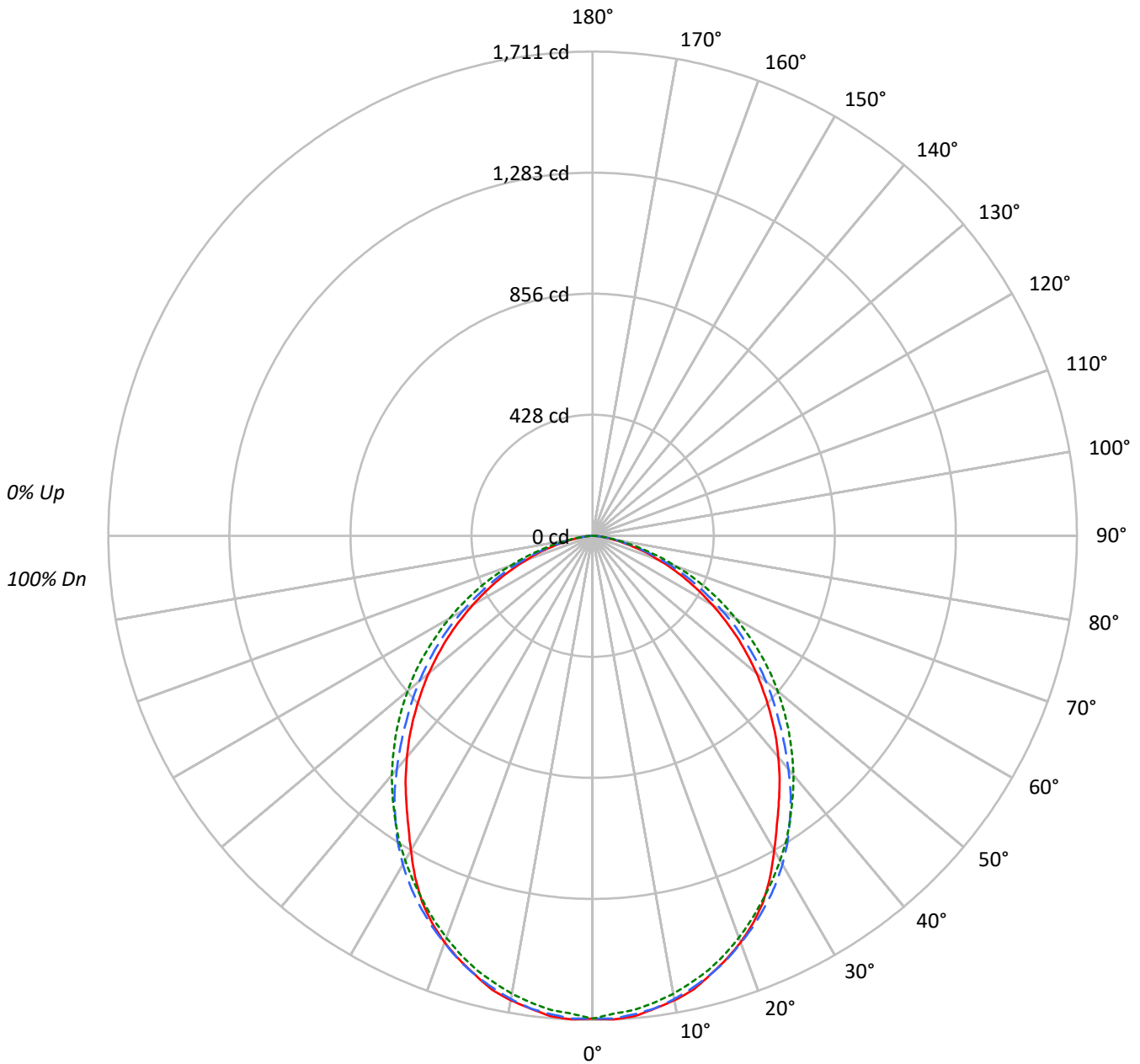
Lumens per Lamp: N/A
Luminaire Lumens: 3945.0 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4591	4591	4591
5°	4603	4584	4545
10°	4555	4542	4490
15°	4474	4474	4423
20°	4379	4385	4328
25°	4235	4287	4219
30°	3988	4167	4116
35°	3768	3994	4001
40°	3585	3778	3877
45°	3380	3550	3731
50°	3164	3345	3573
55°	2918	3112	3379
60°	2628	2840	3143
65°	2320	2525	2859
70°	1934	2150	2429
75°	1520	1718	1902
80°	1086	1209	1340
85°	707	707	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.6	4.1
10°-20°	451.3	11.4
20°-30°	659.5	16.7
30°-40°	748.6	19.0
40°-50°	722.6	18.3
50°-60°	596.1	15.1
60°-70°	397.0	10.1
70°-80°	177.6	4.5
80°-90°	31.8	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°	1271.4	32.2
0°-40°	2019.9	51.2
0°-60°	3338.6	84.6
0°-90°	3945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3945.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1704	1704	1697	1688	1682	161
15°	1606	1610	1606	1599	1588	453
25°	1426	1437	1444	1433	1421	653
35°	1147	1163	1216	1222	1218	719
45°	888	903	933	975	980	685
55°	622	632	663	700	720	555
65°	364	374	396	425	449	361
75°	146	154	165	173	183	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°	1706.1	1706.1	1706.1	1706.1	1706.1
2.5°	1710.7	1711.4	1707.4	1696.9	1690.4
5°	1704.1	1703.5	1696.9	1687.8	1682.5
7.5°	1685.1	1686.4	1684.5	1671.4	1664.2
10°	1666.8	1667.4	1662.2	1651.7	1643.2
12.5°	1643.2	1642.5	1635.3	1630.1	1616.3
15°	1605.8	1609.8	1605.8	1598.6	1587.5
17.5°	1569.8	1569.8	1572.4	1559.9	1551.4
20°	1529.1	1531.1	1531.1	1521.3	1511.4
22.5°	1482.0	1487.8	1489.8	1479.3	1467.5
25°	1426.2	1437.4	1443.9	1433.4	1421.0
27.5°	1358.7	1375.8	1395.4	1387.6	1373.8
30°	1283.4	1308.3	1341.0	1334.5	1324.6
32.5°	1211.9	1236.8	1282.0	1279.4	1274.2
35°	1147.0	1162.8	1215.8	1222.4	1217.8
37.5°	1085.4	1099.8	1149.6	1164.7	1160.8
40°	1020.5	1036.3	1075.6	1102.5	1103.8
42.5°	956.3	971.4	1003.5	1042.1	1042.1
45°	888.1	903.2	932.7	975.3	980.5
47.5°	821.3	837.0	865.8	908.4	917.0
50°	755.7	770.1	799.0	840.3	853.4
52.5°	687.6	703.3	731.5	769.5	788.5
55°	622.0	632.5	663.3	700.0	720.3
57.5°	553.8	563.7	598.4	629.9	650.9
60°	488.3	500.8	527.6	559.7	584.0
62.5°	425.4	438.5	461.4	489.6	517.1
65°	364.4	374.3	396.5	424.7	449.0
67.5°	305.4	314.0	336.2	355.9	381.5
70°	245.8	256.9	273.3	292.3	308.7
72.5°	197.9	202.5	216.3	230.1	247.1
75°	146.2	154.0	165.2	173.0	182.9
77.5°	104.9	109.5	116.0	122.6	131.7
80°	70.1	72.1	78.0	79.3	86.5
82.5°	42.6	43.9	45.2	45.9	48.5
85°	22.9	22.9	22.9	21.6	21.6
87.5°	13.1	13.1	11.1	9.2	6.6
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)