

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: P556399

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-97-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: P556399
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-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

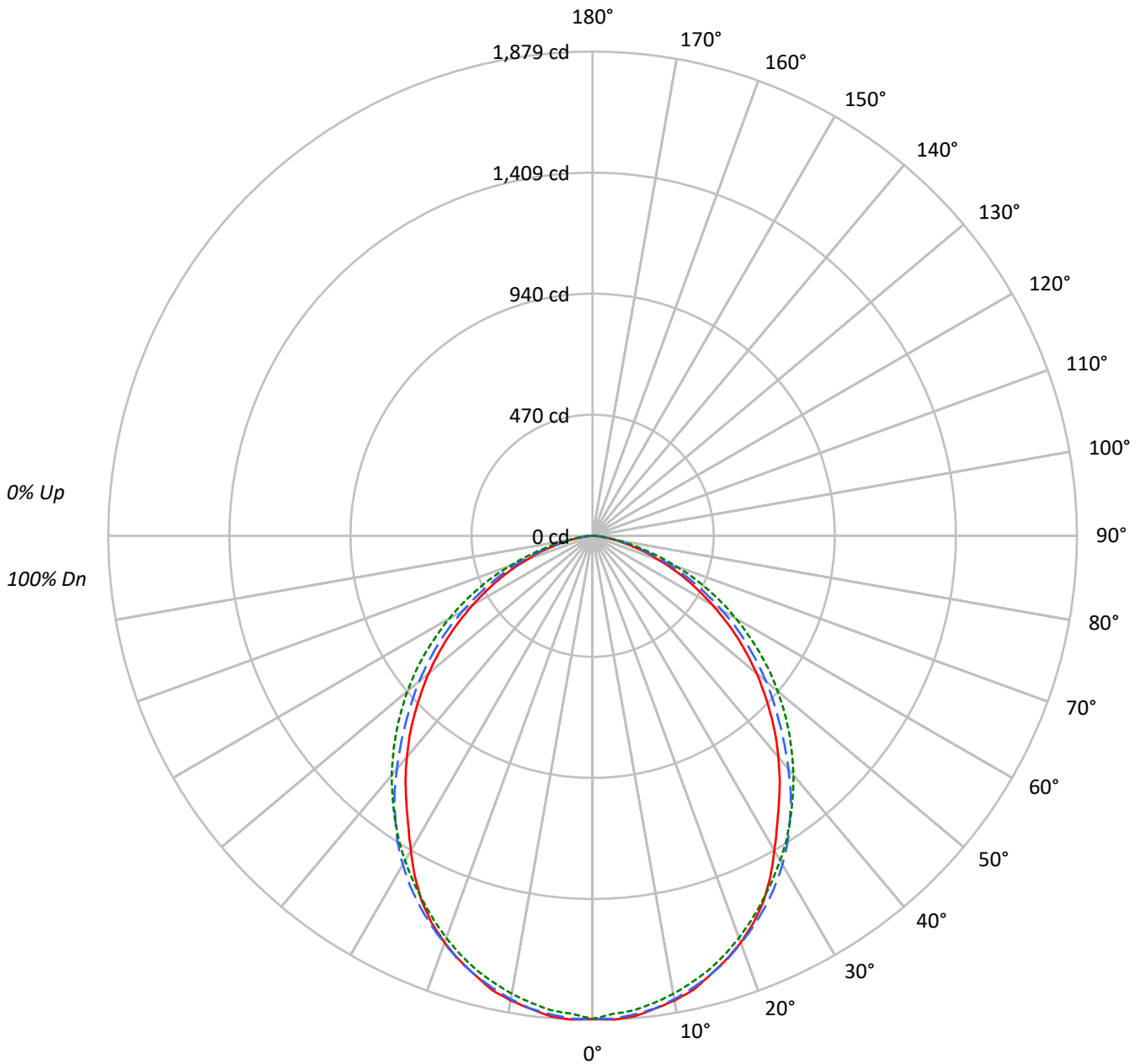
Lumens per Lamp: N/A
Luminaire Lumens: 4334.0 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	5044	5044	5044
5°	5057	5036	4993
10°	5003	4990	4933
15°	4915	4915	4859
20°	4811	4817	4755
25°	4652	4710	4635
30°	4381	4578	4522
35°	4140	4388	4395
40°	3938	4151	4260
45°	3713	3900	4099
50°	3476	3675	3925
55°	3206	3419	3713
60°	2887	3120	3453
65°	2550	2774	3140
70°	2124	2363	2669
75°	1670	1887	2089
80°	1193	1328	1472
85°	778	778	735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.5	4.1
10°-20°	495.8	11.4
20°-30°	724.5	16.7
30°-40°	822.4	19.0
40°-50°	793.9	18.3
50°-60°	654.9	15.1
60°-70°	436.1	10.1
70°-80°	195.2	4.5
80°-90°	34.9	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°	1396.7	32.2
0°-40°	2219.1	51.2
0°-60°	3667.8	84.6
0°-90°	4334.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1874	1874	1874	1874	1874	
5°	1872	1872	1864	1854	1848	177
15°	1764	1768	1764	1756	1744	497
25°	1567	1579	1586	1575	1561	718
35°	1260	1277	1336	1343	1338	790
45°	976	992	1025	1072	1077	753
55°	683	695	729	769	791	610
65°	400	411	436	467	493	397
75°	161	169	182	190	201	176
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1874.3	1874.3	1874.3	1874.3	1874.3
2.5°	1879.4	1880.1	1875.8	1864.3	1857.1
5°	1872.2	1871.5	1864.3	1854.2	1848.4
7.5°	1851.3	1852.7	1850.6	1836.2	1828.3
10°	1831.1	1831.9	1826.1	1814.6	1805.2
12.5°	1805.2	1804.5	1796.6	1790.8	1775.7
15°	1764.2	1768.5	1764.2	1756.3	1744.0
17.5°	1724.6	1724.6	1727.4	1713.8	1704.4
20°	1679.9	1682.1	1682.1	1671.3	1660.5
22.5°	1628.1	1634.6	1636.7	1625.2	1612.2
25°	1566.9	1579.1	1586.3	1574.8	1561.1
27.5°	1492.7	1511.4	1533.0	1524.4	1509.3
30°	1409.9	1437.3	1473.3	1466.1	1455.3
32.5°	1331.4	1358.8	1408.5	1405.6	1399.8
35°	1260.1	1277.4	1335.7	1342.9	1337.9
37.5°	1192.4	1208.3	1263.0	1279.6	1275.2
40°	1121.1	1138.4	1181.6	1211.2	1212.6
42.5°	1050.6	1067.1	1102.4	1144.9	1144.9
45°	975.7	992.3	1024.7	1071.5	1077.2
47.5°	902.2	919.5	951.2	998.0	1007.4
50°	830.2	846.1	877.8	923.1	937.5
52.5°	755.4	772.6	803.6	845.4	866.2
55°	683.3	694.9	728.7	769.0	791.4
57.5°	608.5	619.3	657.4	692.0	715.0
60°	536.5	550.1	579.7	614.9	641.6
62.5°	467.3	481.7	506.9	537.9	568.1
65°	400.4	411.2	435.6	466.6	493.2
67.5°	335.6	344.9	369.4	391.0	419.1
70°	270.0	282.3	300.3	321.2	339.2
72.5°	217.5	222.5	237.6	252.7	271.5
75°	160.6	169.2	181.5	190.1	200.9
77.5°	115.2	120.3	127.5	134.7	144.7
80°	77.0	79.2	85.7	87.1	95.0
82.5°	46.8	48.2	49.7	50.4	53.3
85°	25.2	25.2	25.2	23.8	23.8
87.5°	14.4	14.4	12.2	10.1	7.2
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)