

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: P556389

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-86-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: P556389
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-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

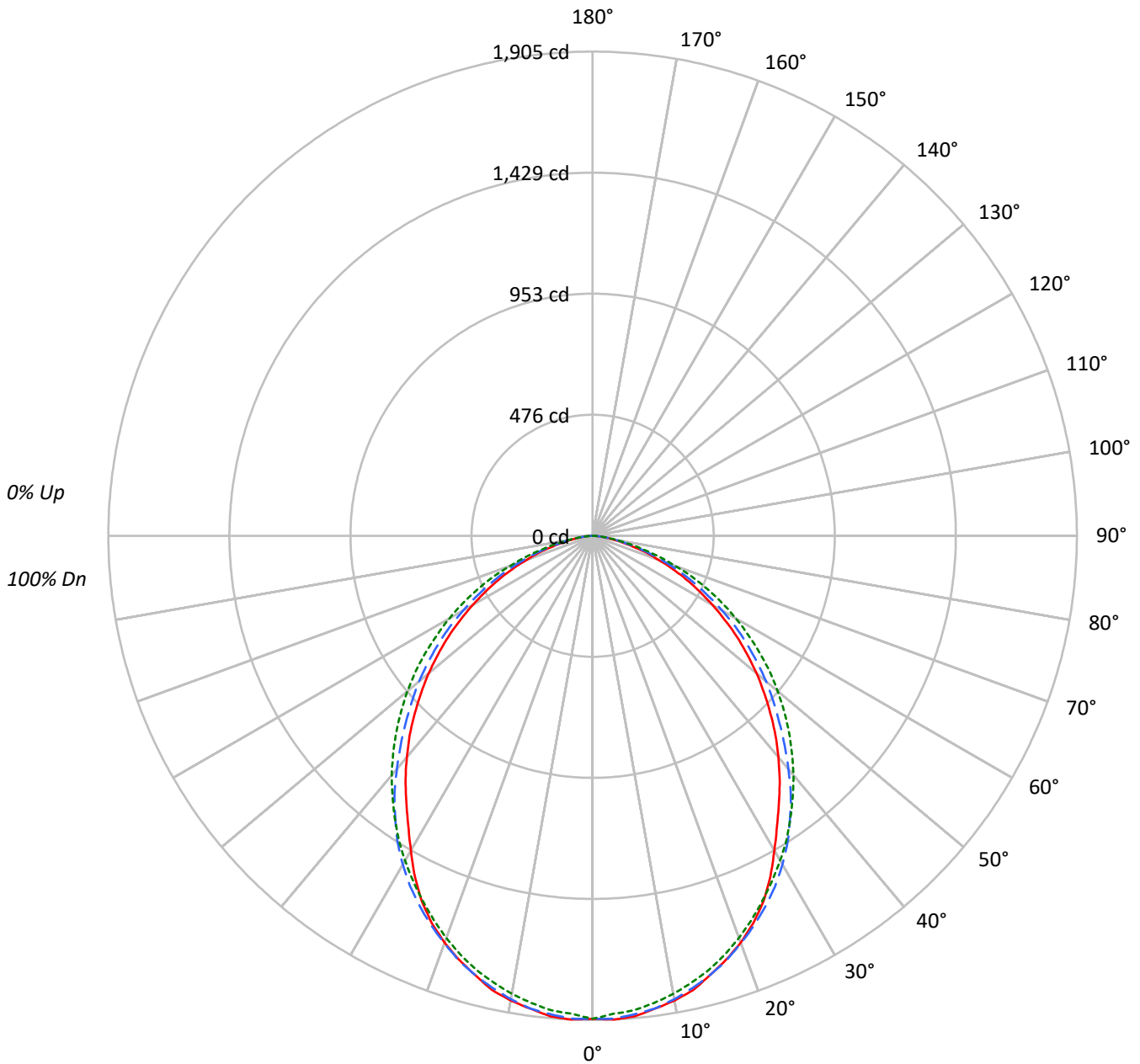
Lumens per Lamp: N/A
Luminaire Lumens: 4394.0 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556389

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-86-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°	5114	5114	5114
5°	5127	5106	5062
10°	5073	5059	5001
15°	4983	4983	4926
20°	4877	4884	4821
25°	4717	4775	4699
30°	4442	4641	4584
35°	4197	4449	4456
40°	3993	4208	4319
45°	3765	3953	4156
50°	3524	3725	3979
55°	3250	3466	3764
60°	2927	3163	3501
65°	2585	2812	3184
70°	2154	2395	2705
75°	1693	1913	2118
80°	1210	1347	1494
85°	790	790	744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.9	4.1
10°-20°	502.6	11.4
20°-30°	734.5	16.7
30°-40°	833.8	19.0
40°-50°	804.9	18.3
50°-60°	663.9	15.1
60°-70°	442.1	10.1
70°-80°	197.8	4.5
80°-90°	35.4	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°	1416.1	32.2
0°-40°	2249.8	51.2
0°-60°	3718.6	84.6
0°-90°	4394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1900	1900	1900	1900	1900	
5°	1898	1897	1890	1880	1874	180
15°	1789	1793	1789	1781	1768	504
25°	1589	1601	1608	1597	1583	727
35°	1278	1295	1354	1362	1356	800
45°	989	1006	1039	1086	1092	763
55°	693	704	739	780	802	618
65°	406	417	442	473	500	402
75°	163	172	184	193	204	178
85°	26	26	26	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1900.3	1900.3	1900.3	1900.3	1900.3
2.5°	1905.4	1906.1	1901.8	1890.1	1882.8
5°	1898.1	1897.4	1890.1	1879.9	1874.0
7.5°	1876.9	1878.4	1876.2	1861.6	1853.6
10°	1856.5	1857.2	1851.4	1839.7	1830.2
12.5°	1830.2	1829.5	1821.4	1815.6	1800.3
15°	1788.6	1793.0	1788.6	1780.6	1768.2
17.5°	1748.4	1748.4	1751.4	1737.5	1728.0
20°	1703.2	1705.4	1705.4	1694.4	1683.5
22.5°	1650.6	1657.2	1659.4	1647.7	1634.6
25°	1588.6	1601.0	1608.3	1596.6	1582.7
27.5°	1513.4	1532.4	1554.3	1545.5	1530.2
30°	1429.4	1457.2	1493.7	1486.4	1475.4
32.5°	1349.8	1377.6	1428.0	1425.0	1419.2
35°	1277.6	1295.1	1354.2	1361.5	1356.4
37.5°	1208.9	1225.0	1280.5	1297.3	1292.9
40°	1136.7	1154.2	1198.0	1227.9	1229.4
42.5°	1065.1	1081.9	1117.7	1160.8	1160.8
45°	989.2	1006.0	1038.8	1086.3	1092.1
47.5°	914.7	932.3	964.4	1011.8	1021.3
50°	841.7	857.8	889.9	935.9	950.5
52.5°	765.8	783.3	814.7	857.1	878.2
55°	692.8	704.5	738.8	779.7	802.3
57.5°	616.9	627.8	666.5	701.6	724.9
60°	543.9	557.7	587.7	623.5	650.5
62.5°	473.8	488.4	513.9	545.3	576.0
65°	405.9	416.9	441.7	473.1	500.1
67.5°	340.2	349.7	374.5	396.4	424.9
70°	273.8	286.2	304.4	325.6	343.8
72.5°	220.5	225.6	240.9	256.2	275.2
75°	162.8	171.6	184.0	192.7	203.7
77.5°	116.8	121.9	129.2	136.5	146.7
80°	78.1	80.3	86.9	88.3	96.4
82.5°	47.5	48.9	50.4	51.1	54.0
85°	25.6	25.6	25.6	24.1	24.1
87.5°	14.6	14.6	12.4	10.2	7.3
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)