

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: P556134

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-93-87-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: P556134
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-12-2-LD4-3STD-50-UNV-93-87-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

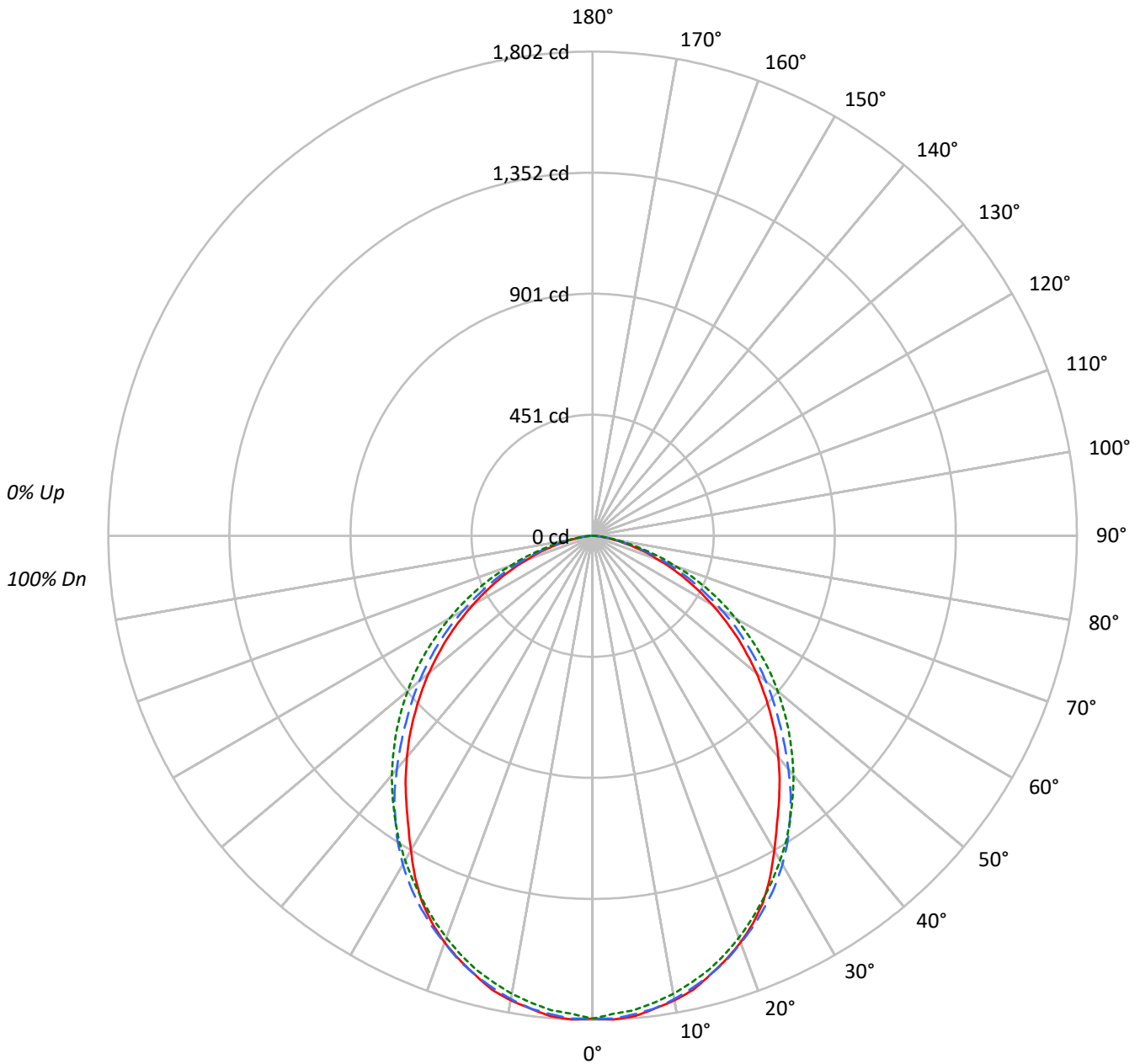
Lumens per Lamp: N/A
Luminaire Lumens: 4155.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	9671	9671	9671
5°	9697	9656	9574
10°	9594	9568	9458
15°	9424	9424	9316
20°	9224	9236	9117
25°	8921	9031	8887
30°	8400	8777	8671
35°	7937	8414	8427
40°	7551	7959	8167
45°	7120	7477	7860
50°	6665	7046	7526
55°	6147	6555	7119
60°	5536	5982	6621
65°	4888	5318	6022
70°	4074	4530	5116
75°	3200	3618	4005
80°	2290	2545	2824
85°	1494	1494	1408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.2	4.1
10°-20°	475.3	11.4
20°-30°	694.6	16.7
30°-40°	788.4	19.0
40°-50°	761.1	18.3
50°-60°	627.8	15.1
60°-70°	418.1	10.1
70°-80°	187.1	4.5
80°-90°	33.5	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°	1339.0	32.2
0°-40°	2127.4	51.2
0°-60°	3516.3	84.6
0°-90°	4155.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4155.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1797	1797	1797	1797	1797	
5°	1795	1794	1787	1778	1772	170
15°	1691	1696	1691	1684	1672	477
25°	1502	1514	1521	1510	1497	688
35°	1208	1225	1281	1288	1283	757
45°	935	951	982	1027	1033	722
55°	655	666	699	737	759	585
65°	384	394	418	447	473	381
75°	154	162	174	182	193	168
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1796.9	1796.9	1796.9	1796.9	1796.9
2.5°	1801.8	1802.5	1798.3	1787.3	1780.4
5°	1794.9	1794.2	1787.3	1777.6	1772.1
7.5°	1774.8	1776.2	1774.1	1760.3	1752.7
10°	1755.5	1756.2	1750.7	1739.6	1730.7
12.5°	1730.7	1730.0	1722.4	1716.9	1702.4
15°	1691.3	1695.5	1691.3	1683.7	1672.0
17.5°	1653.3	1653.3	1656.1	1643.0	1634.0
20°	1610.5	1612.6	1612.6	1602.3	1591.9
22.5°	1560.8	1567.1	1569.1	1558.1	1545.6
25°	1502.2	1513.9	1520.8	1509.8	1496.6
27.5°	1431.1	1449.0	1469.7	1461.4	1446.9
30°	1351.7	1377.9	1412.4	1405.5	1395.2
32.5°	1276.4	1302.7	1350.3	1347.5	1342.0
35°	1208.1	1224.6	1280.6	1287.5	1282.6
37.5°	1143.2	1158.4	1210.8	1226.7	1222.6
40°	1074.8	1091.4	1132.8	1161.1	1162.5
42.5°	1007.2	1023.1	1056.9	1097.6	1097.6
45°	935.4	951.3	982.3	1027.2	1032.7
47.5°	865.0	881.6	911.9	956.8	965.8
50°	796.0	811.1	841.5	885.0	898.8
52.5°	724.2	740.7	770.4	810.4	830.5
55°	655.1	666.2	698.6	737.3	758.7
57.5°	583.3	593.7	630.3	663.4	685.5
60°	514.3	527.4	555.7	589.5	615.1
62.5°	448.0	461.8	486.0	515.7	544.7
65°	383.8	394.2	417.6	447.3	472.9
67.5°	321.7	330.7	354.1	374.8	401.8
70°	258.9	270.6	287.9	307.9	325.1
72.5°	208.5	213.3	227.8	242.3	260.3
75°	153.9	162.2	174.0	182.2	192.6
77.5°	110.5	115.3	122.2	129.1	138.8
80°	73.9	75.9	82.1	83.5	91.1
82.5°	44.9	46.3	47.6	48.3	51.1
85°	24.2	24.2	24.2	22.8	22.8
87.5°	13.8	13.8	11.7	9.7	6.9
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)