

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: P557228

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-93-96-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: P557228
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-LD4-2LO-30-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

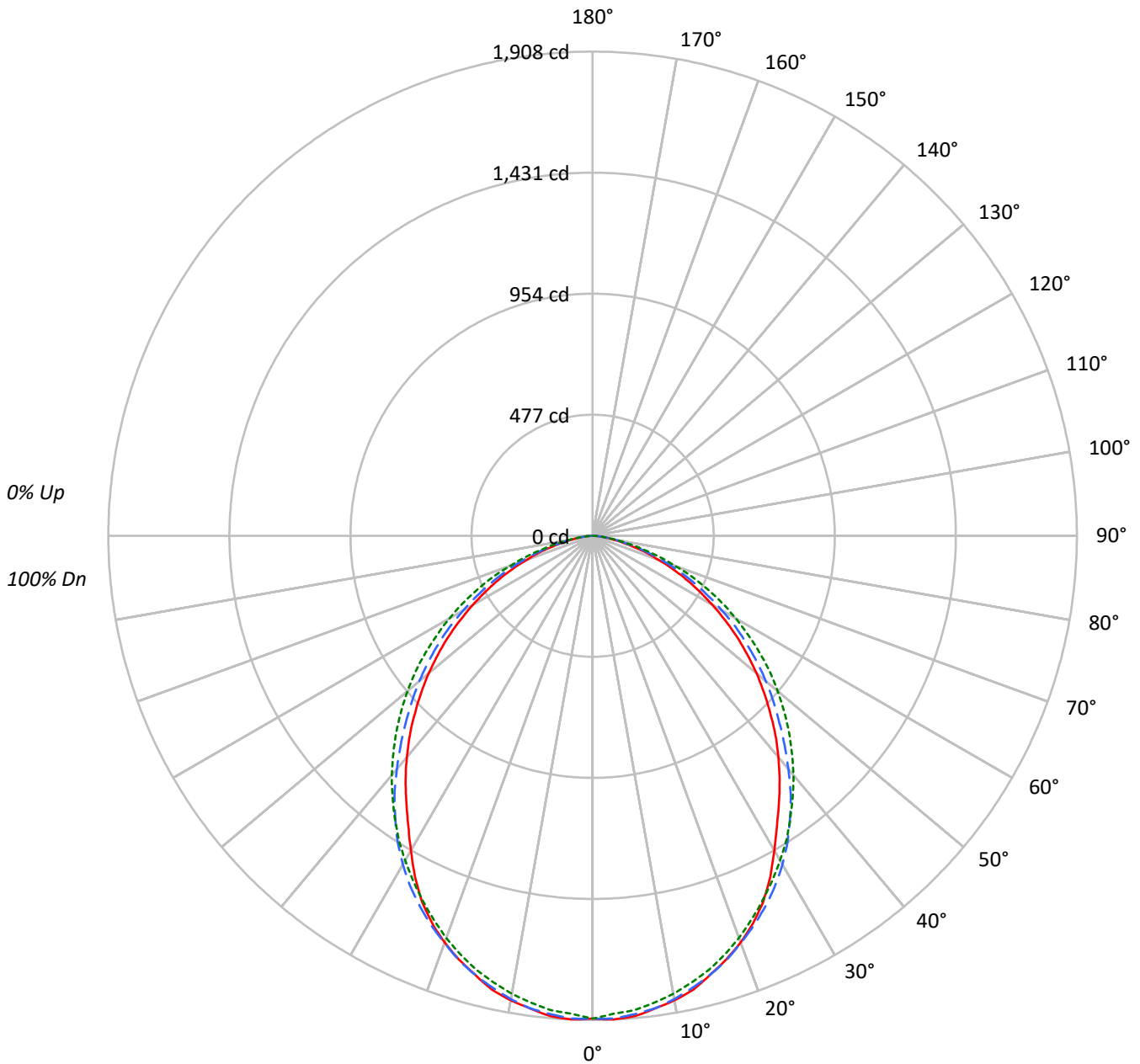
Lumens per Lamp: N/A
Luminaire Lumens: 4400.0 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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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CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-93-96-EDD-90

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°	5121	5121	5121
5°	5134	5113	5069
10°	5080	5066	5008
15°	4990	4990	4933
20°	4884	4890	4828
25°	4723	4782	4706
30°	4448	4648	4591
35°	4203	4455	4462
40°	3998	4214	4325
45°	3770	3959	4162
50°	3529	3731	3985
55°	3255	3471	3769
60°	2931	3167	3506
65°	2588	2816	3189
70°	2157	2398	2709
75°	1695	1915	2121
80°	1212	1348	1495
85°	790	790	744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.2	4.1
10°-20°	503.3	11.4
20°-30°	735.5	16.7
30°-40°	834.9	19.0
40°-50°	806.0	18.3
50°-60°	664.8	15.1
60°-70°	442.7	10.1
70°-80°	198.1	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°	1418.0	32.2
0°-40°	2252.9	51.2
0°-60°	3723.7	84.6
0°-90°	4400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1903	1903	1903	1903	1903	
5°	1901	1900	1893	1882	1877	180
15°	1791	1795	1791	1783	1771	505
25°	1591	1603	1610	1599	1585	728
35°	1279	1297	1356	1363	1358	802
45°	991	1007	1040	1088	1094	764
55°	694	705	740	781	803	619
65°	406	417	442	474	501	403
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°	1902.9	1902.9	1902.9	1902.9	1902.9
2.5°	1908.0	1908.7	1904.3	1892.7	1885.3
5°	1900.7	1900.0	1892.7	1882.4	1876.6
7.5°	1879.5	1881.0	1878.8	1864.1	1856.1
10°	1859.0	1859.8	1853.9	1842.2	1832.7
12.5°	1832.7	1832.0	1823.9	1818.1	1802.7
15°	1791.0	1795.4	1791.0	1783.0	1770.6
17.5°	1750.8	1750.8	1753.8	1739.9	1730.4
20°	1705.5	1707.7	1707.7	1696.7	1685.8
22.5°	1652.9	1659.5	1661.6	1649.9	1636.8
25°	1590.7	1603.2	1610.5	1598.8	1584.9
27.5°	1515.4	1534.4	1556.4	1547.6	1532.3
30°	1431.4	1459.1	1495.7	1488.4	1477.4
32.5°	1351.7	1379.5	1429.9	1427.0	1421.1
35°	1279.3	1296.9	1356.1	1363.4	1358.3
37.5°	1210.6	1226.7	1282.2	1299.1	1294.7
40°	1138.2	1155.8	1199.6	1229.6	1231.1
42.5°	1066.6	1083.4	1119.2	1162.3	1162.3
45°	990.6	1007.4	1040.3	1087.8	1093.6
47.5°	916.0	933.5	965.7	1013.2	1022.7
50°	842.9	859.0	891.1	937.2	951.8
52.5°	766.9	784.4	815.8	858.2	879.4
55°	693.8	705.4	739.8	780.7	803.4
57.5°	617.7	628.7	667.4	702.5	725.9
60°	544.6	558.5	588.5	624.3	651.4
62.5°	474.4	489.1	514.6	546.1	576.8
65°	406.5	417.4	442.3	473.7	500.8
67.5°	340.7	350.2	375.0	397.0	425.5
70°	274.1	286.6	304.8	326.0	344.3
72.5°	220.8	225.9	241.2	256.6	275.6
75°	163.0	171.8	184.2	193.0	204.0
77.5°	117.0	122.1	129.4	136.7	146.9
80°	78.2	80.4	87.0	88.5	96.5
82.5°	47.5	49.0	50.4	51.2	54.1
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)