

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: P557518

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-81-97-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: P557518
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-LD4-2STD-35-UNV-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

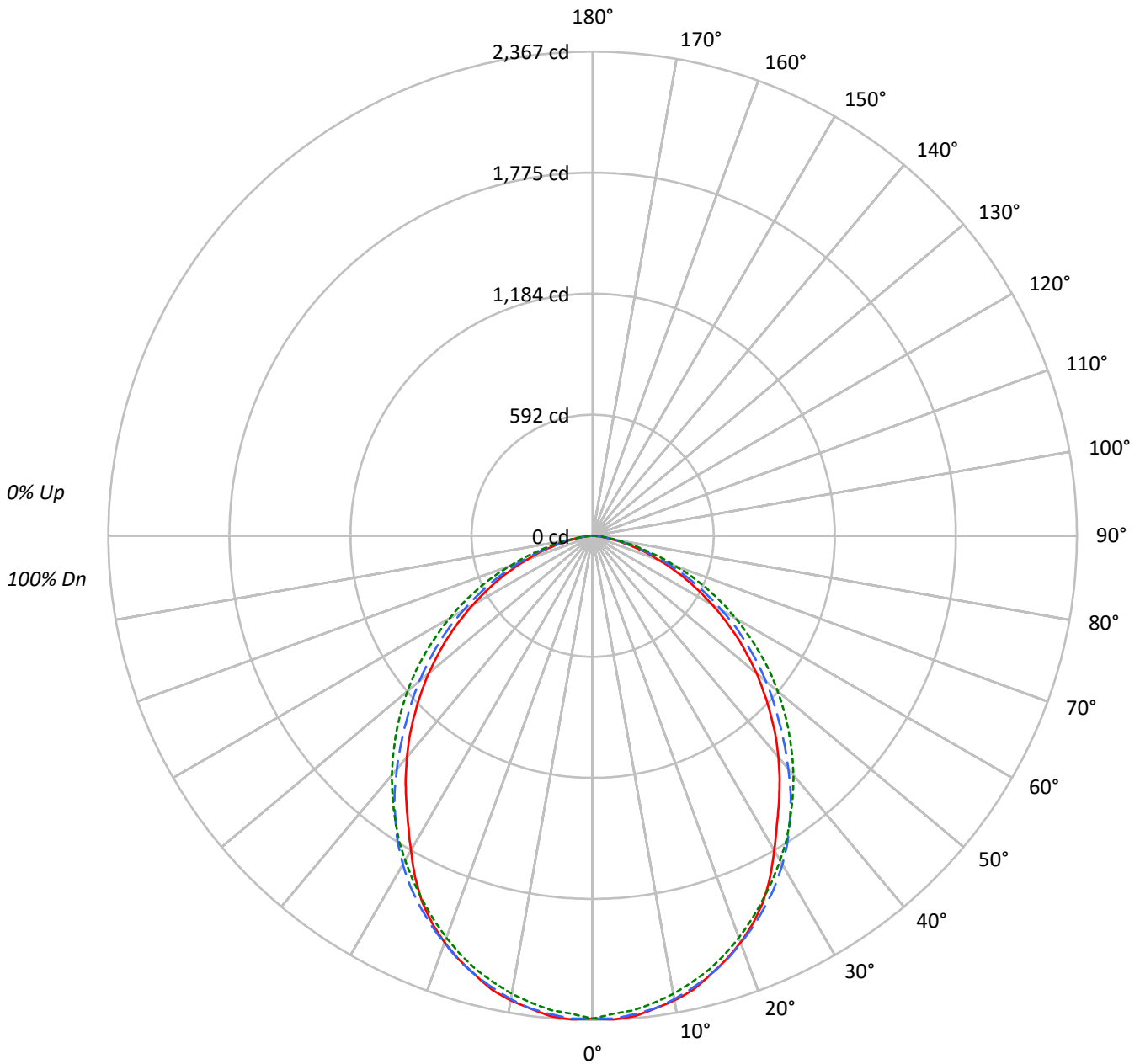
Lumens per Lamp: N/A
Luminaire Lumens: 5458.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6352	6352	6352
5°	6369	6342	6288
10°	6301	6284	6212
15°	6189	6189	6119
20°	6058	6066	5988
25°	5859	5932	5837
30°	5517	5765	5695
35°	5213	5526	5535
40°	4960	5227	5364
45°	4676	4911	5163
50°	4377	4628	4943
55°	4038	4305	4676
60°	3636	3929	4349
65°	3210	3493	3955
70°	2676	2975	3360
75°	2102	2376	2630
80°	1503	1672	1855
85°	979	979	923



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.2	4.1
10°-20°	624.3	11.4
20°-30°	912.4	16.7
30°-40°	1035.6	19.0
40°-50°	999.7	18.3
50°-60°	824.7	15.1
60°-70°	549.2	10.1
70°-80°	245.8	4.5
80°-90°	44.0	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°	1758.9	32.2
0°-40°	2794.6	51.2
0°-60°	4619.1	84.6
0°-90°	5458.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5458.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2360	2360	2360	2360	2360	
5°	2358	2357	2348	2335	2328	223
15°	2222	2227	2222	2212	2196	626
25°	1973	1989	1998	1983	1966	904
35°	1587	1609	1682	1691	1685	994
45°	1229	1250	1290	1349	1357	948
55°	861	875	918	968	997	768
65°	504	518	549	588	621	500
75°	202	213	228	239	253	221
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2360.4	2360.4	2360.4	2360.4	2360.4
2.5°	2366.8	2367.7	2362.3	2347.7	2338.7
5°	2357.7	2356.8	2347.7	2335.1	2327.8
7.5°	2331.4	2333.2	2330.5	2312.4	2302.4
10°	2306.0	2306.9	2299.7	2285.2	2273.4
12.5°	2273.4	2272.5	2262.5	2255.3	2236.2
15°	2221.7	2227.1	2221.7	2211.7	2196.3
17.5°	2171.8	2171.8	2175.5	2158.2	2146.4
20°	2115.6	2118.3	2118.3	2104.7	2091.1
22.5°	2050.3	2058.5	2061.2	2046.7	2030.4
25°	1973.2	1988.6	1997.7	1983.2	1966.0
27.5°	1879.8	1903.4	1930.6	1919.7	1900.7
30°	1775.5	1810.0	1855.3	1846.3	1832.7
32.5°	1676.7	1711.2	1773.7	1770.1	1762.9
35°	1586.9	1608.7	1682.1	1691.2	1684.9
37.5°	1501.7	1521.6	1590.6	1611.4	1606.0
40°	1411.9	1433.7	1488.1	1525.3	1527.1
42.5°	1323.0	1343.9	1388.3	1441.8	1441.8
45°	1228.7	1249.6	1290.4	1349.3	1356.6
47.5°	1136.2	1158.0	1197.9	1256.8	1268.6
50°	1045.6	1065.5	1105.4	1162.5	1180.7
52.5°	951.3	973.0	1012.0	1064.6	1090.9
55°	860.6	875.1	917.7	968.5	996.6
57.5°	766.3	779.9	827.9	871.5	900.5
60°	675.6	692.8	730.0	774.4	808.0
62.5°	588.5	606.7	638.4	677.4	715.5
65°	504.2	517.8	548.6	587.6	621.2
67.5°	422.6	434.4	465.2	492.4	527.8
70°	340.1	355.5	378.1	404.4	427.1
72.5°	273.9	280.2	299.2	318.3	341.9
75°	202.2	213.1	228.5	239.4	253.0
77.5°	145.1	151.4	160.5	169.6	182.3
80°	97.0	99.7	107.9	109.7	119.7
82.5°	58.9	60.8	62.6	63.5	67.1
85°	31.7	31.7	31.7	29.9	29.9
87.5°	18.1	18.1	15.4	12.7	9.1
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)