

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: P557355

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-93-94-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: P557355
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-40-UNV-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

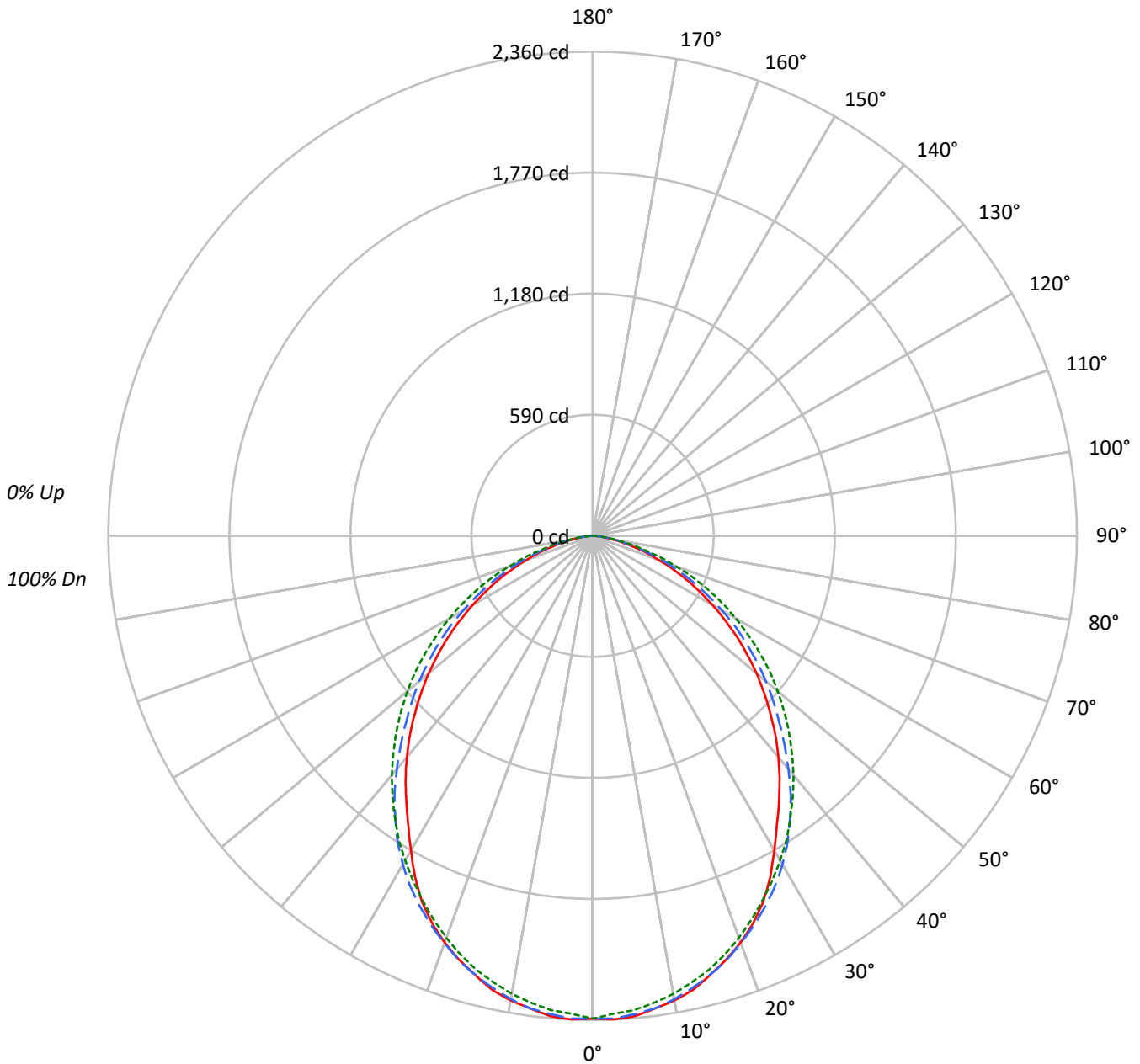
Lumens per Lamp: N/A
Luminaire Lumens: 5442.0 lumens
Efficiency: N/A
Efficacy: 116.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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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°	6333	6333	6333
5°	6350	6323	6270
10°	6283	6265	6194
15°	6171	6171	6101
20°	6041	6048	5971
25°	5842	5914	5820
30°	5501	5748	5678
35°	5198	5510	5519
40°	4945	5212	5349
45°	4662	4896	5147
50°	4364	4614	4928
55°	4025	4293	4662
60°	3625	3917	4336
65°	3201	3483	3943
70°	2668	2966	3351
75°	2096	2368	2623
80°	1499	1667	1849
85°	976	976	920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.6	4.1
10°-20°	622.5	11.4
20°-30°	909.7	16.7
30°-40°	1032.6	19.0
40°-50°	996.8	18.3
50°-60°	822.3	15.1
60°-70°	547.6	10.1
70°-80°	245.0	4.5
80°-90°	43.8	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°	1753.8	32.2
0°-40°	2786.4	51.2
0°-60°	4605.5	84.6
0°-90°	5442.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5442.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2354	2354	2354	2354	2354	
5°	2351	2350	2341	2328	2321	223
15°	2215	2221	2215	2205	2190	624
25°	1967	1983	1992	1977	1960	901
35°	1582	1604	1677	1686	1680	991
45°	1225	1246	1287	1345	1353	945
55°	858	872	915	966	994	766
65°	503	516	547	586	619	498
75°	202	212	228	239	252	220
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°	2353.5	2353.5	2353.5	2353.5	2353.5
2.5°	2359.9	2360.8	2355.3	2340.9	2331.8
5°	2350.8	2349.9	2340.9	2328.2	2321.0
7.5°	2324.6	2326.4	2323.7	2305.6	2295.7
10°	2299.3	2300.2	2292.9	2278.5	2266.7
12.5°	2266.7	2265.8	2255.9	2248.6	2229.7
15°	2215.2	2220.6	2215.2	2205.2	2189.9
17.5°	2165.5	2165.5	2169.1	2151.9	2140.1
20°	2109.4	2112.1	2112.1	2098.6	2085.0
22.5°	2044.3	2052.4	2055.2	2040.7	2024.4
25°	1967.4	1982.8	1991.9	1977.4	1960.2
27.5°	1874.3	1897.8	1925.0	1914.1	1895.1
30°	1770.3	1804.7	1849.9	1840.9	1827.3
32.5°	1671.8	1706.1	1768.5	1764.9	1757.7
35°	1582.3	1604.0	1677.2	1686.3	1679.9
37.5°	1497.3	1517.2	1585.9	1606.7	1601.3
40°	1407.8	1429.5	1483.7	1520.8	1522.6
42.5°	1319.2	1340.0	1384.3	1437.6	1437.6
45°	1225.1	1245.9	1286.6	1345.4	1352.6
47.5°	1132.9	1154.6	1194.4	1253.2	1264.9
50°	1042.5	1062.4	1102.2	1159.1	1177.2
52.5°	948.5	970.2	1009.0	1061.5	1087.7
55°	858.0	872.5	915.0	965.6	993.7
57.5°	764.0	777.6	825.5	868.9	897.8
60°	673.6	690.8	727.8	772.2	805.6
62.5°	586.8	604.9	636.5	675.4	713.4
65°	502.7	516.3	547.0	585.9	619.3
67.5°	421.3	433.1	463.8	491.0	526.2
70°	339.1	354.4	377.0	403.3	425.9
72.5°	273.1	279.4	298.4	317.4	340.9
75°	201.6	212.5	227.8	238.7	252.3
77.5°	144.7	151.0	160.0	169.1	181.7
80°	96.7	99.5	107.6	109.4	119.3
82.5°	58.8	60.6	62.4	63.3	66.9
85°	31.6	31.6	31.6	29.8	29.8
87.5°	18.1	18.1	15.4	12.7	9.0
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)