

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: P558116

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-86-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: P558116
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-LD4-3LO-40-UNV-93-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

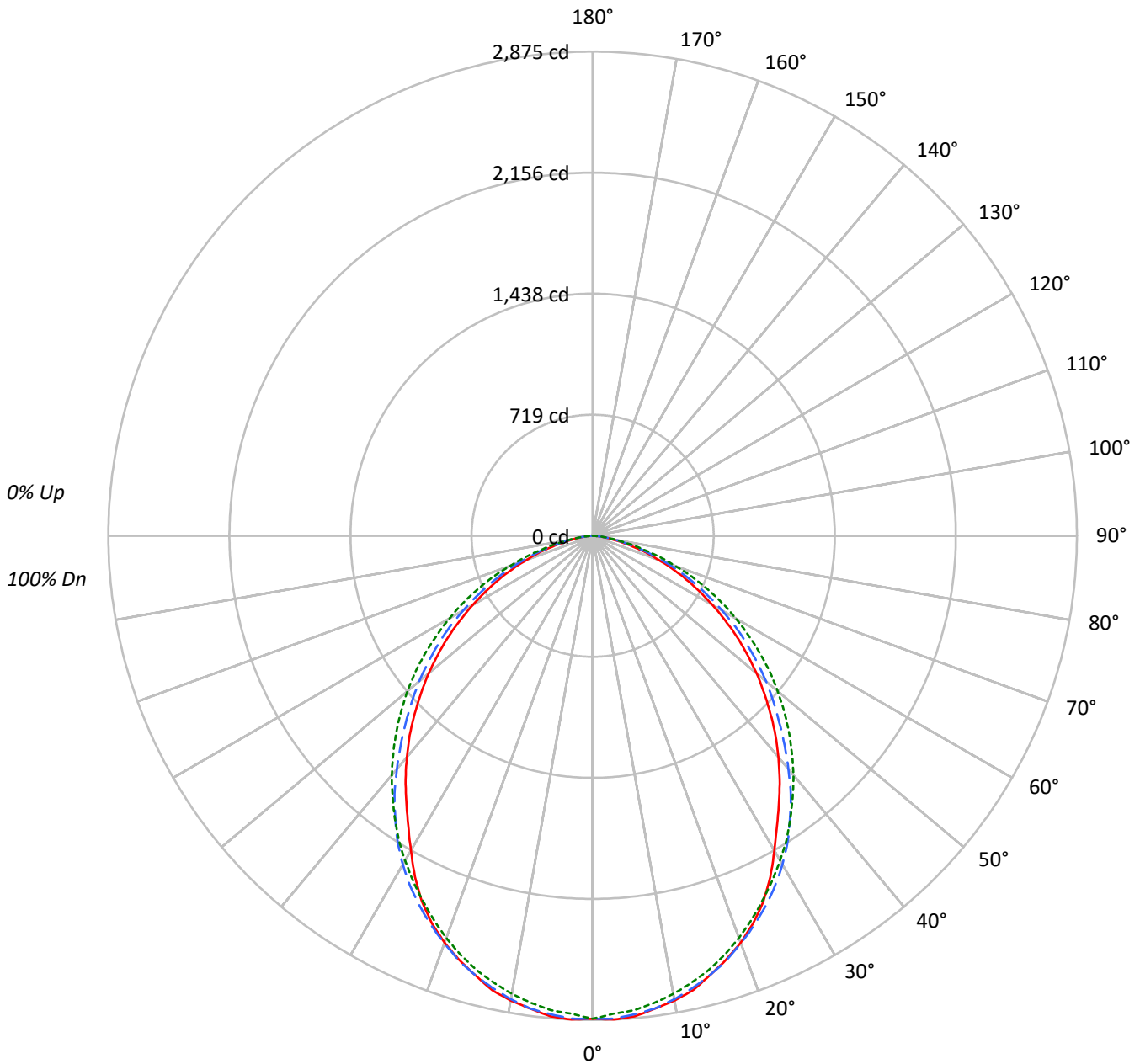
Lumens per Lamp: N/A
Luminaire Lumens: 6631.0 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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: P558116

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-93-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558116

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-93-86-EDD-90

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°	7717	7717	7717
5°	7737	7705	7639
10°	7655	7634	7547
15°	7520	7520	7434
20°	7361	7370	7275
25°	7118	7206	7092
30°	6703	7004	6918
35°	6334	6714	6725
40°	6026	6351	6517
45°	5681	5966	6272
50°	5318	5622	6005
55°	4905	5231	5681
60°	4418	4773	5283
65°	3900	4244	4805
70°	3250	3615	4083
75°	2555	2886	3196
80°	1827	2032	2253
85°	1192	1192	1124



TEST NUMBER: P558116

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-93-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.0	4.1
10°-20°	758.5	11.4
20°-30°	1108.5	16.7
30°-40°	1258.2	19.0
40°-50°	1214.6	18.3
50°-60°	1002.0	15.1
60°-70°	667.2	10.1
70°-80°	298.6	4.5
80°-90°	53.4	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°	2137.0	32.2
0°-40°	3395.2	51.2
0°-60°	5611.8	84.6
0°-90°	6631.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6631.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2868	2868	2868	2868	2868	
5°	2864	2863	2852	2837	2828	271
15°	2699	2706	2699	2687	2668	761
25°	2397	2416	2427	2409	2388	1098
35°	1928	1954	2044	2055	2047	1208
45°	1493	1518	1568	1639	1648	1152
55°	1046	1063	1115	1177	1211	933
65°	612	629	666	714	755	607
75°	246	259	278	291	307	269
85°	39	39	39	36	36	52
90°	0	0	0	0	0	



TEST NUMBER: P558116

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-93-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2867.7	2867.7	2867.7	2867.7	2867.7
2.5°	2875.4	2876.5	2869.9	2852.3	2841.3
5°	2864.4	2863.3	2852.3	2836.9	2828.1
7.5°	2832.5	2834.7	2831.4	2809.3	2797.2
10°	2801.6	2802.7	2793.9	2776.3	2762.0
12.5°	2762.0	2760.9	2748.8	2739.9	2716.8
15°	2699.2	2705.8	2699.2	2687.1	2668.3
17.5°	2638.6	2638.6	2643.0	2622.1	2607.7
20°	2570.3	2573.6	2573.6	2557.1	2540.5
22.5°	2491.0	2500.9	2504.2	2486.5	2466.7
25°	2397.3	2416.0	2427.1	2409.4	2388.5
27.5°	2283.8	2312.5	2345.5	2332.3	2309.2
30°	2157.1	2199.0	2254.1	2243.1	2226.5
32.5°	2037.1	2078.9	2154.9	2150.5	2141.7
35°	1928.0	1954.4	2043.7	2054.7	2047.0
37.5°	1824.4	1848.7	1932.4	1957.7	1951.1
40°	1715.4	1741.8	1807.9	1853.1	1855.3
42.5°	1607.4	1632.7	1686.7	1751.7	1751.7
45°	1492.8	1518.1	1567.7	1639.3	1648.1
47.5°	1380.4	1406.9	1455.4	1527.0	1541.3
50°	1270.3	1294.5	1343.0	1412.4	1434.4
52.5°	1155.7	1182.1	1229.5	1293.4	1325.4
55°	1045.5	1063.1	1114.9	1176.6	1210.8
57.5°	930.9	947.5	1005.9	1058.7	1094.0
60°	820.8	841.7	886.9	940.9	981.6
62.5°	715.0	737.0	775.6	823.0	869.2
65°	612.5	629.1	666.5	713.9	754.7
67.5°	513.4	527.7	565.2	598.2	641.2
70°	413.1	431.9	459.4	491.4	518.9
72.5°	332.7	340.4	363.6	386.7	415.3
75°	245.7	258.9	277.6	290.8	307.4
77.5°	176.3	184.0	195.0	206.0	221.4
80°	117.9	121.2	131.1	133.3	145.4
82.5°	71.6	73.8	76.0	77.1	81.5
85°	38.6	38.6	38.6	36.4	36.4
87.5°	22.0	22.0	18.7	15.4	11.0
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)