

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: P557664

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-93-84-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: P557664
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-50-UNV-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

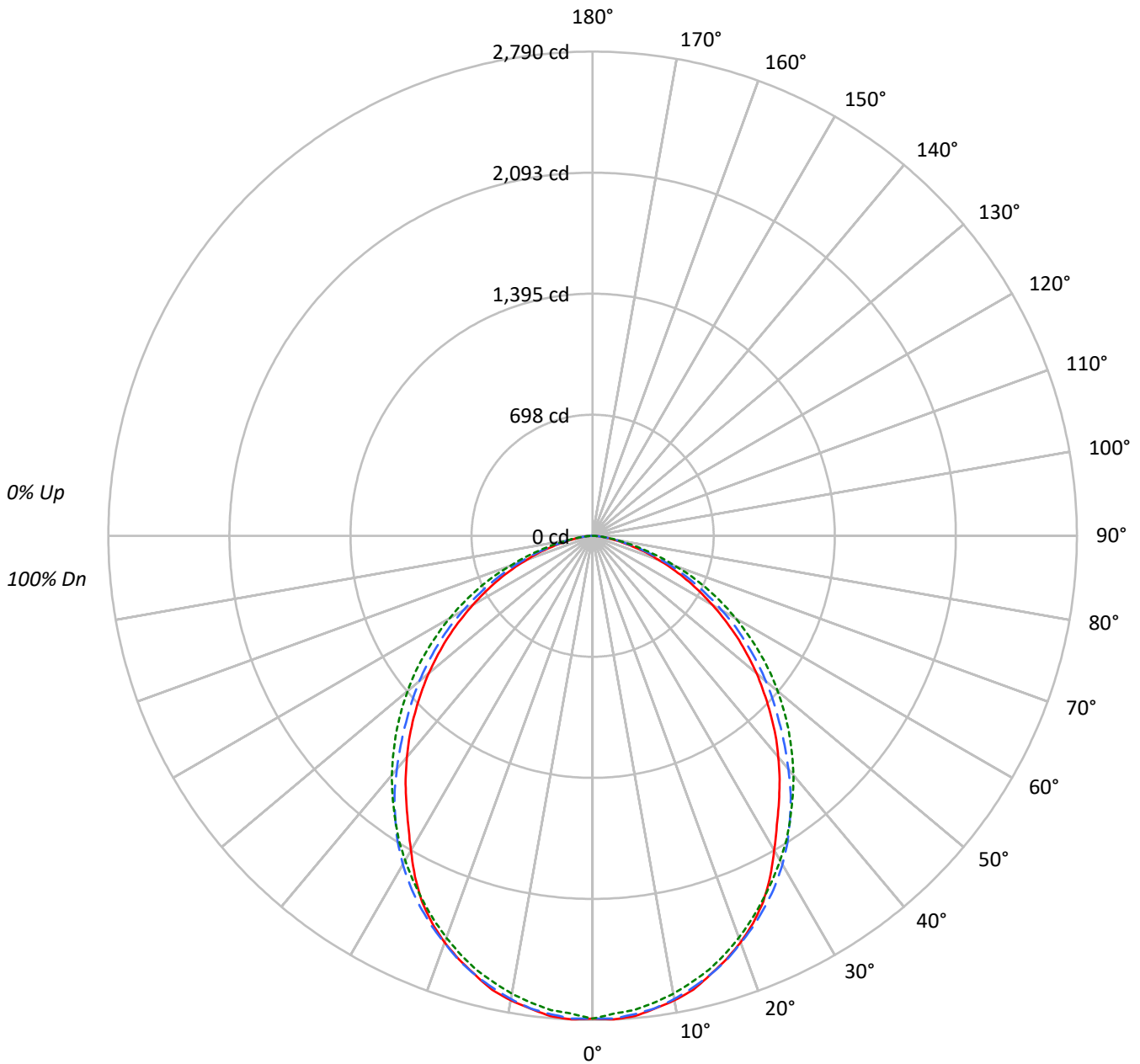
Lumens per Lamp: N/A
Luminaire Lumens: 6433.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557664

CATALOG NUMBER: FUSL-12-4-LD4-2STD-50-UNV-93-84-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°	7487	7487	7487
5°	7507	7475	7411
10°	7427	7406	7322
15°	7295	7295	7212
20°	7141	7150	7058
25°	6905	6991	6880
30°	6503	6795	6712
35°	6144	6513	6524
40°	5846	6161	6323
45°	5511	5788	6085
50°	5159	5454	5826
55°	4759	5074	5511
60°	4286	4631	5125
65°	3784	4117	4662
70°	3153	3507	3961
75°	2478	2800	3100
80°	1773	1971	2187
85°	1155	1155	1090



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.9	4.1
10°-20°	735.9	11.4
20°-30°	1075.4	16.7
30°-40°	1220.6	19.0
40°-50°	1178.3	18.3
50°-60°	972.0	15.1
60°-70°	647.3	10.1
70°-80°	289.7	4.5
80°-90°	51.8	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°	2073.2	32.2
0°-40°	3293.8	51.2
0°-60°	5444.2	84.6
0°-90°	6433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6433.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2782	2782	2782	2782	2782	
5°	2779	2778	2767	2752	2744	263
15°	2619	2625	2619	2607	2589	738
25°	2326	2344	2355	2338	2317	1065
35°	1870	1896	1983	1993	1986	1172
45°	1448	1473	1521	1590	1599	1117
55°	1014	1031	1082	1142	1175	905
65°	594	610	647	693	732	589
75°	238	251	269	282	298	261
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2782.1	2782.1	2782.1	2782.1	2782.1
2.5°	2789.6	2790.7	2784.2	2767.1	2756.5
5°	2778.9	2777.8	2767.1	2752.2	2743.6
7.5°	2747.9	2750.0	2746.8	2725.5	2713.7
10°	2718.0	2719.0	2710.5	2693.4	2679.5
12.5°	2679.5	2678.4	2666.7	2658.1	2635.7
15°	2618.6	2625.0	2618.6	2606.8	2588.7
17.5°	2559.8	2559.8	2564.1	2543.8	2529.9
20°	2493.5	2496.7	2496.7	2480.7	2464.7
22.5°	2416.6	2426.2	2429.4	2412.3	2393.1
25°	2325.7	2343.9	2354.6	2337.5	2317.2
27.5°	2215.6	2243.4	2275.5	2262.7	2240.2
30°	2092.7	2133.3	2186.8	2176.1	2160.1
32.5°	1976.2	2016.8	2090.6	2086.3	2077.8
35°	1870.4	1896.1	1982.6	1993.3	1985.8
37.5°	1769.9	1793.5	1874.7	1899.3	1892.9
40°	1664.1	1689.8	1753.9	1797.7	1799.9
42.5°	1559.4	1584.0	1636.3	1699.4	1699.4
45°	1448.2	1472.8	1520.9	1590.4	1598.9
47.5°	1339.2	1364.9	1411.9	1481.4	1495.3
50°	1232.3	1255.8	1302.9	1370.2	1391.6
52.5°	1121.2	1146.8	1192.8	1254.8	1285.8
55°	1014.3	1031.4	1081.6	1141.5	1174.6
57.5°	903.1	919.2	975.8	1027.1	1061.3
60°	796.3	816.6	860.4	912.8	952.3
62.5°	693.7	715.0	752.4	798.4	843.3
65°	594.3	610.3	646.6	692.6	732.1
67.5°	498.1	512.0	548.3	580.4	622.0
70°	400.8	419.0	445.7	476.7	503.4
72.5°	322.8	330.3	352.7	375.2	402.9
75°	238.3	251.2	269.3	282.2	298.2
77.5°	171.0	178.5	189.2	199.9	214.8
80°	114.4	117.6	127.2	129.3	141.1
82.5°	69.5	71.6	73.7	74.8	79.1
85°	37.4	37.4	37.4	35.3	35.3
87.5°	21.4	21.4	18.2	15.0	10.7
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)