

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: P558159

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-81-97-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: P558159
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-50-UNV-81-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

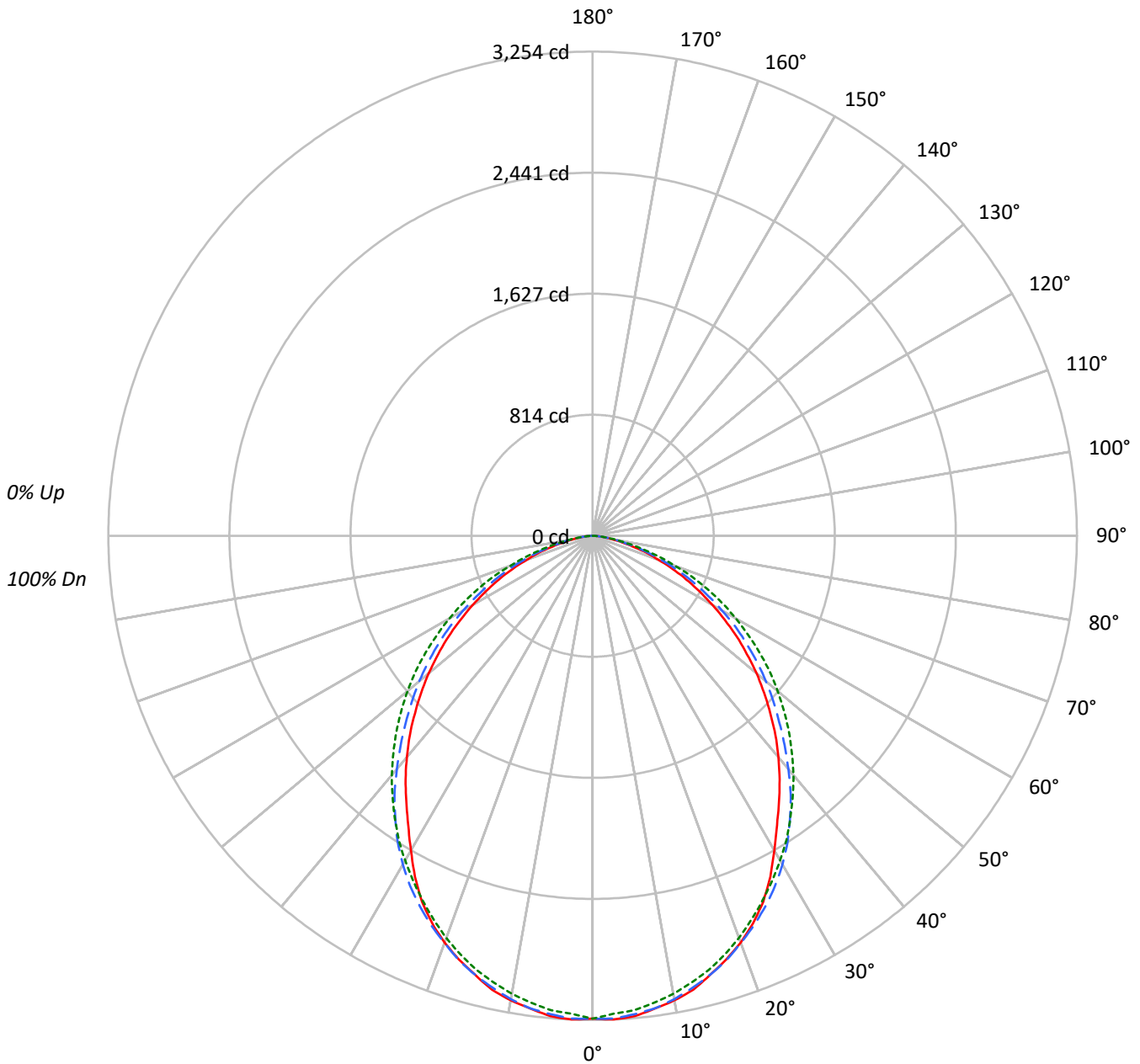
Lumens per Lamp: N/A
Luminaire Lumens: 7504.0 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	8733	8733	8733
5°	8756	8719	8645
10°	8663	8640	8541
15°	8510	8510	8412
20°	8330	8340	8233
25°	8055	8155	8026
30°	7585	7926	7829
35°	7167	7597	7610
40°	6819	7187	7375
45°	6429	6752	7098
50°	6018	6363	6796
55°	5551	5919	6428
60°	4999	5401	5979
65°	4414	4803	5438
70°	3678	4091	4620
75°	2890	3267	3616
80°	2067	2300	2551
85°	1346	1346	1269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.6	4.1
10°-20°	858.4	11.4
20°-30°	1254.4	16.7
30°-40°	1423.9	19.0
40°-50°	1374.5	18.3
50°-60°	1133.9	15.1
60°-70°	755.1	10.1
70°-80°	337.9	4.5
80°-90°	60.4	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°	2418.3	32.2
0°-40°	3842.2	51.2
0°-60°	6350.6	84.6
0°-90°	7504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7504.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3245	3245	3245	3245	3245	
5°	3242	3240	3228	3210	3200	307
15°	3054	3062	3054	3041	3020	861
25°	2713	2734	2747	2727	2703	1242
35°	2182	2212	2313	2325	2316	1367
45°	1689	1718	1774	1855	1865	1303
55°	1183	1203	1262	1332	1370	1056
65°	693	712	754	808	854	687
75°	278	293	314	329	348	304
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3245.3	3245.3	3245.3	3245.3	3245.3
2.5°	3254.0	3255.3	3247.8	3227.8	3215.4
5°	3241.5	3240.3	3227.8	3210.4	3200.4
7.5°	3205.4	3207.9	3204.1	3179.2	3165.5
10°	3170.5	3171.7	3161.8	3141.8	3125.6
12.5°	3125.6	3124.4	3110.6	3100.7	3074.5
15°	3054.5	3062.0	3054.5	3040.8	3019.6
17.5°	2986.0	2986.0	2990.9	2967.3	2951.1
20°	2908.7	2912.4	2912.4	2893.7	2875.0
22.5°	2818.9	2830.1	2833.9	2813.9	2791.5
25°	2712.9	2734.1	2746.6	2726.6	2703.0
27.5°	2584.5	2616.9	2654.3	2639.4	2613.2
30°	2441.1	2488.5	2550.8	2538.4	2519.7
32.5°	2305.2	2352.6	2438.6	2433.7	2423.7
35°	2181.8	2211.7	2312.7	2325.2	2316.5
37.5°	2064.6	2092.0	2186.8	2215.5	2208.0
40°	1941.2	1971.1	2045.9	2097.0	2099.5
42.5°	1819.0	1847.7	1908.8	1982.3	1982.3
45°	1689.3	1718.0	1774.1	1855.2	1865.1
47.5°	1562.2	1592.1	1647.0	1728.0	1744.2
50°	1437.5	1464.9	1519.8	1598.3	1623.3
52.5°	1307.8	1337.8	1391.4	1463.7	1499.8
55°	1183.2	1203.1	1261.7	1331.5	1370.2
57.5°	1053.5	1072.2	1138.3	1198.1	1238.0
60°	928.8	952.5	1003.6	1064.7	1110.9
62.5°	809.1	834.1	877.7	931.3	983.7
65°	693.2	711.9	754.3	807.9	854.0
67.5°	581.0	597.2	639.6	677.0	725.6
70°	467.5	488.7	519.9	556.0	587.2
72.5°	376.5	385.2	411.4	437.6	470.0
75°	278.0	293.0	314.2	329.1	347.8
77.5°	199.5	208.2	220.7	233.1	250.6
80°	133.4	137.1	148.4	150.9	164.6
82.5°	81.0	83.5	86.0	87.3	92.3
85°	43.6	43.6	43.6	41.1	41.1
87.5°	24.9	24.9	21.2	17.5	12.5
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)