

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: P558216

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-81-88-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: P558216
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-LD4-3STD-30-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

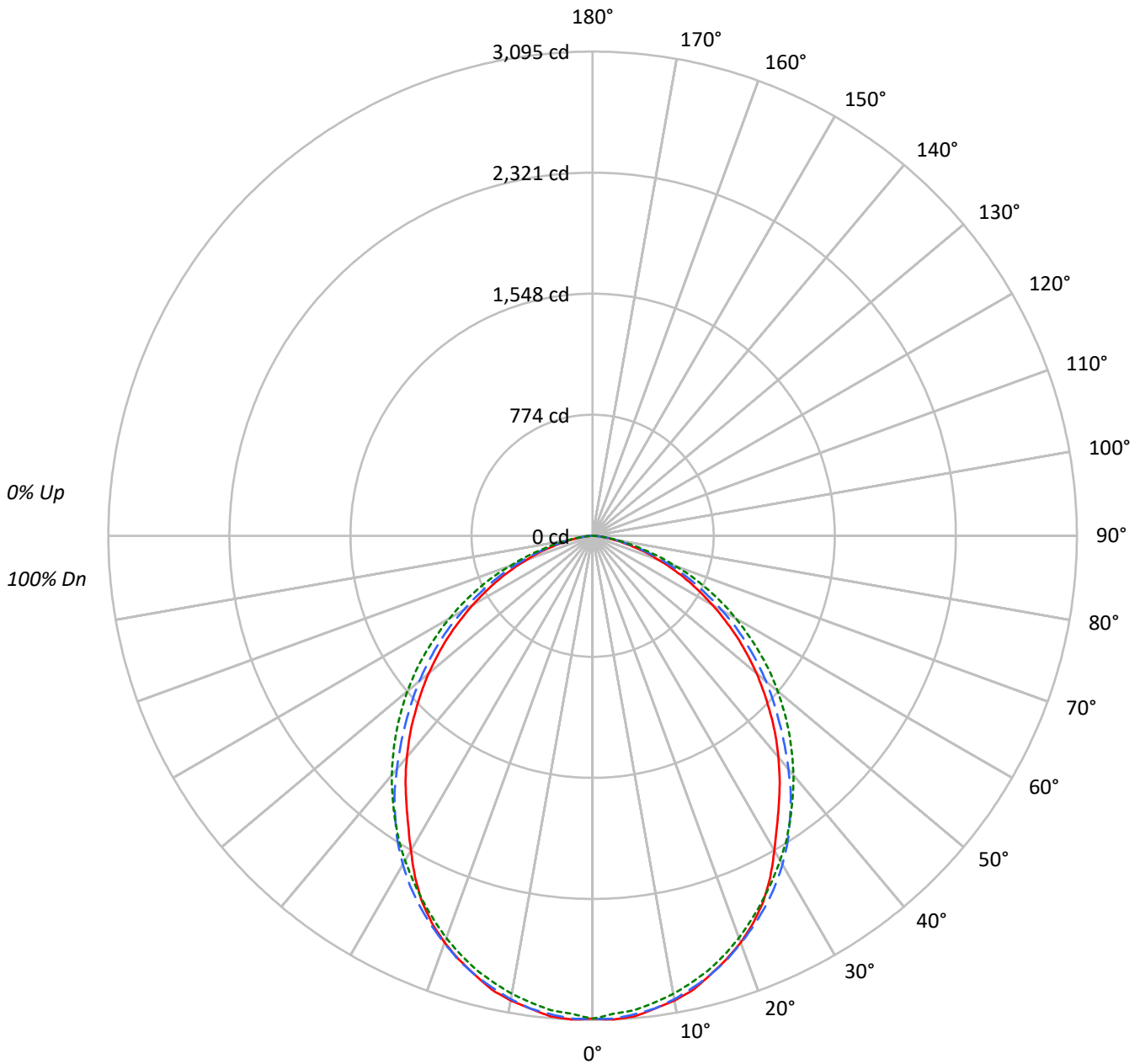
Lumens per Lamp: N/A
Luminaire Lumens: 7138.0 lumens
Efficiency: N/A
Efficacy: 71.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	8307	8307	8307
5°	8329	8294	8223
10°	8241	8218	8124
15°	8095	8095	8002
20°	7923	7934	7832
25°	7662	7757	7634
30°	7215	7539	7448
35°	6818	7227	7239
40°	6486	6836	7015
45°	6115	6422	6752
50°	5725	6052	6464
55°	5280	5631	6115
60°	4755	5138	5687
65°	4199	4569	5173
70°	3499	3891	4395
75°	2750	3108	3440
80°	1967	2187	2425
85°	1281	1281	1207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.6	4.1
10°-20°	816.5	11.4
20°-30°	1193.2	16.7
30°-40°	1354.4	19.0
40°-50°	1307.5	18.3
50°-60°	1078.6	15.1
60°-70°	718.3	10.1
70°-80°	321.4	4.5
80°-90°	57.5	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°	2300.4	32.2
0°-40°	3654.8	51.2
0°-60°	6040.9	84.6
0°-90°	7138.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7138.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3087	3087	3087	3087	3087	
5°	3083	3082	3070	3054	3044	292
15°	2906	2913	2906	2892	2872	819
25°	2581	2601	2613	2594	2571	1182
35°	2075	2104	2200	2212	2204	1300
45°	1607	1634	1688	1765	1774	1240
55°	1126	1144	1200	1267	1303	1005
65°	659	677	718	768	812	654
75°	264	279	299	313	331	289
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3087.0	3087.0	3087.0	3087.0	3087.0
2.5°	3095.3	3096.5	3089.4	3070.4	3058.5
5°	3083.4	3082.3	3070.4	3053.8	3044.3
7.5°	3049.1	3051.4	3047.9	3024.1	3011.1
10°	3015.8	3017.0	3007.5	2988.6	2973.2
12.5°	2973.2	2972.0	2958.9	2949.4	2924.5
15°	2905.6	2912.7	2905.6	2892.5	2872.3
17.5°	2840.3	2840.3	2845.1	2822.5	2807.1
20°	2766.8	2770.4	2770.4	2752.6	2734.8
22.5°	2681.4	2692.1	2695.6	2676.7	2655.3
25°	2580.6	2600.8	2612.6	2593.6	2571.1
27.5°	2458.5	2489.3	2524.9	2510.6	2485.7
30°	2322.1	2367.1	2426.4	2414.6	2396.8
32.5°	2192.8	2237.9	2319.7	2315.0	2305.5
35°	2075.4	2103.9	2199.9	2211.8	2203.5
37.5°	1963.9	1990.0	2080.1	2107.4	2100.3
40°	1846.5	1875.0	1946.1	1994.8	1997.1
42.5°	1730.3	1757.6	1815.7	1885.6	1885.6
45°	1606.9	1634.2	1687.6	1764.7	1774.2
47.5°	1486.0	1514.4	1566.6	1643.7	1659.1
50°	1367.4	1393.5	1445.7	1520.4	1544.1
52.5°	1244.1	1272.5	1323.5	1392.3	1426.7
55°	1125.5	1144.4	1200.2	1266.6	1303.3
57.5°	1002.1	1019.9	1082.8	1139.7	1177.6
60°	883.5	906.1	954.7	1012.8	1056.7
62.5°	769.7	793.4	834.9	885.9	935.7
65°	659.4	677.2	717.5	768.5	812.4
67.5°	552.6	568.1	608.4	644.0	690.2
70°	444.7	464.9	494.5	528.9	558.6
72.5°	358.2	366.5	391.4	416.3	447.1
75°	264.5	278.7	298.9	313.1	330.9
77.5°	189.8	198.1	209.9	221.8	238.4
80°	126.9	130.5	141.1	143.5	156.5
82.5°	77.1	79.5	81.8	83.0	87.8
85°	41.5	41.5	41.5	39.1	39.1
87.5°	23.7	23.7	20.2	16.6	11.9
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)