

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: P558053

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-86-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: P558053
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-35-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

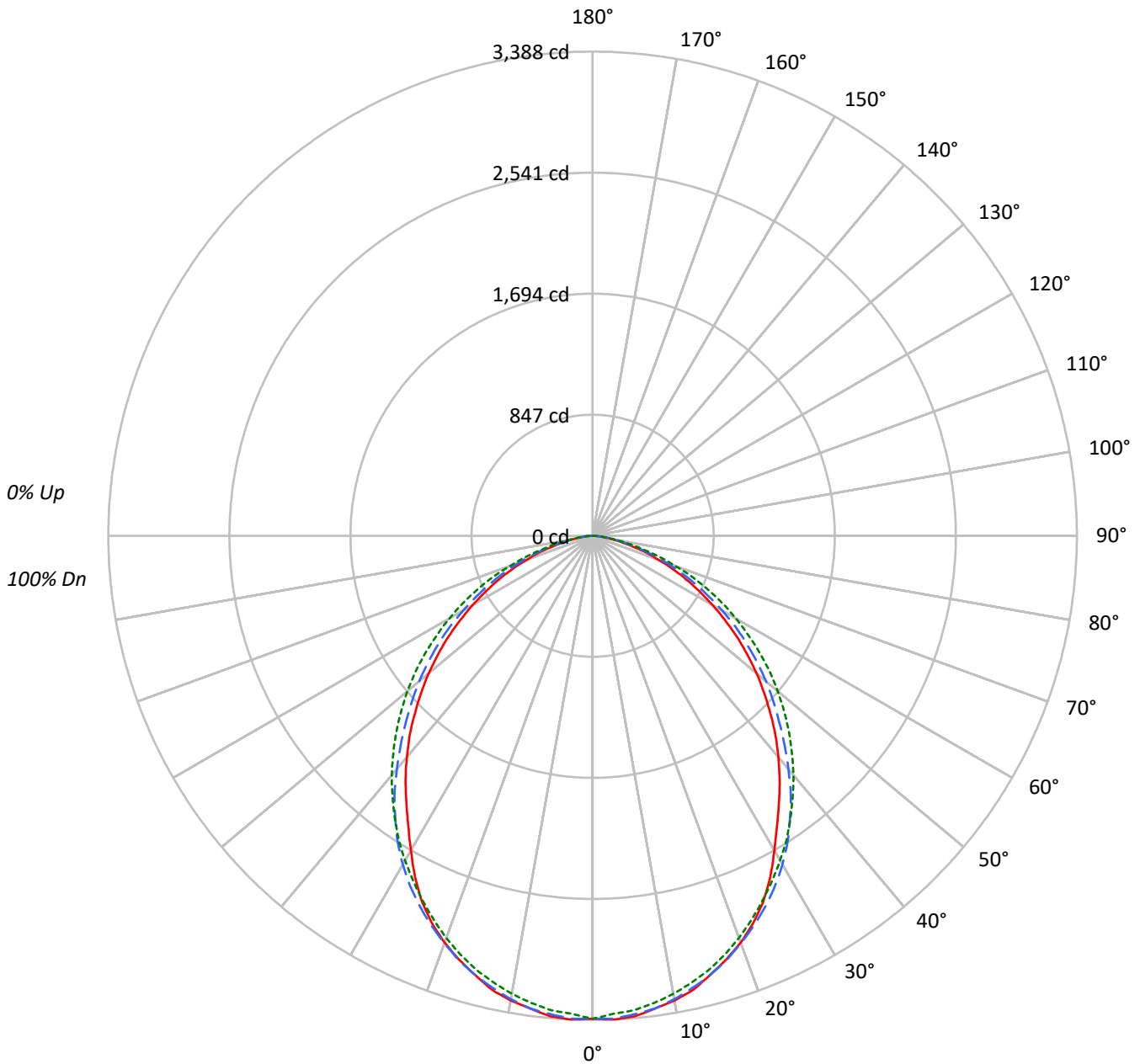
Lumens per Lamp: N/A
Luminaire Lumens: 7814.0 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: FUSL-12-4-LD4-3LO-35-UNV-93-86-EDD

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°	9094	9094	9094
5°	9118	9079	9002
10°	9021	8996	8893
15°	8861	8861	8760
20°	8674	8685	8573
25°	8388	8492	8357
30°	7899	8254	8153
35°	7463	7911	7924
40°	7101	7484	7680
45°	6694	7030	7391
50°	6267	6625	7076
55°	5780	6164	6694
60°	5205	5625	6225
65°	4596	5001	5663
70°	3830	4260	4811
75°	3010	3402	3766
80°	2152	2394	2656
85°	1402	1402	1321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.2	4.1
10°-20°	893.8	11.4
20°-30°	1306.2	16.7
30°-40°	1482.7	19.0
40°-50°	1431.3	18.3
50°-60°	1180.7	15.1
60°-70°	786.3	10.1
70°-80°	351.8	4.5
80°-90°	62.9	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°	2518.2	32.2
0°-40°	4000.9	51.2
0°-60°	6612.9	84.6
0°-90°	7814.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7814.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3379	3379	3379	3379	3379	
5°	3376	3374	3361	3343	3333	319
15°	3181	3188	3181	3166	3144	897
25°	2825	2847	2860	2839	2815	1294
35°	2272	2303	2408	2421	2412	1424
45°	1759	1789	1847	1932	1942	1357
55°	1232	1253	1314	1386	1427	1100
65°	722	741	785	841	889	716
75°	290	305	327	343	362	317
85°	45	45	45	43	43	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3379.4	3379.4	3379.4	3379.4	3379.4
2.5°	3388.4	3389.7	3381.9	3361.2	3348.2
5°	3375.5	3374.2	3361.2	3343.0	3332.6
7.5°	3337.8	3340.4	3336.5	3310.5	3296.3
10°	3301.5	3302.8	3292.4	3271.6	3254.7
12.5°	3254.7	3253.4	3239.1	3228.8	3201.5
15°	3180.7	3188.5	3180.7	3166.4	3144.4
17.5°	3109.3	3109.3	3114.5	3089.8	3073.0
20°	3028.8	3032.7	3032.7	3013.2	2993.8
22.5°	2935.4	2947.0	2950.9	2930.2	2906.8
25°	2825.0	2847.1	2860.1	2839.3	2814.6
27.5°	2691.3	2725.0	2764.0	2748.4	2721.1
30°	2542.0	2591.3	2656.2	2643.2	2623.8
32.5°	2400.5	2449.8	2539.4	2534.2	2523.8
35°	2271.9	2303.1	2408.3	2421.2	2412.2
37.5°	2149.9	2178.5	2277.1	2307.0	2299.2
40°	2021.4	2052.5	2130.4	2183.7	2186.3
42.5°	1894.2	1924.0	1987.6	2064.2	2064.2
45°	1759.1	1789.0	1847.4	1931.8	1942.2
47.5°	1626.7	1657.9	1715.0	1799.4	1816.3
50°	1496.9	1525.4	1582.6	1664.4	1690.3
52.5°	1361.9	1393.0	1448.9	1524.1	1561.8
55°	1232.0	1252.8	1313.8	1386.5	1426.8
57.5°	1097.0	1116.5	1185.3	1247.6	1289.2
60°	967.2	991.9	1045.1	1108.7	1156.7
62.5°	842.6	868.5	914.0	969.8	1024.3
65°	721.8	741.3	785.4	841.3	889.3
67.5°	605.0	621.9	666.0	705.0	755.6
70°	486.8	508.9	541.4	579.0	611.5
72.5°	392.1	401.2	428.4	455.7	489.4
75°	289.5	305.1	327.2	342.7	362.2
77.5°	207.7	216.8	229.8	242.8	260.9
80°	138.9	142.8	154.5	157.1	171.4
82.5°	84.4	87.0	89.6	90.9	96.1
85°	45.4	45.4	45.4	42.8	42.8
87.5°	26.0	26.0	22.1	18.2	13.0
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)