

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: P557030

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-87-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: P557030
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-LD4-2HI-35-UNV-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

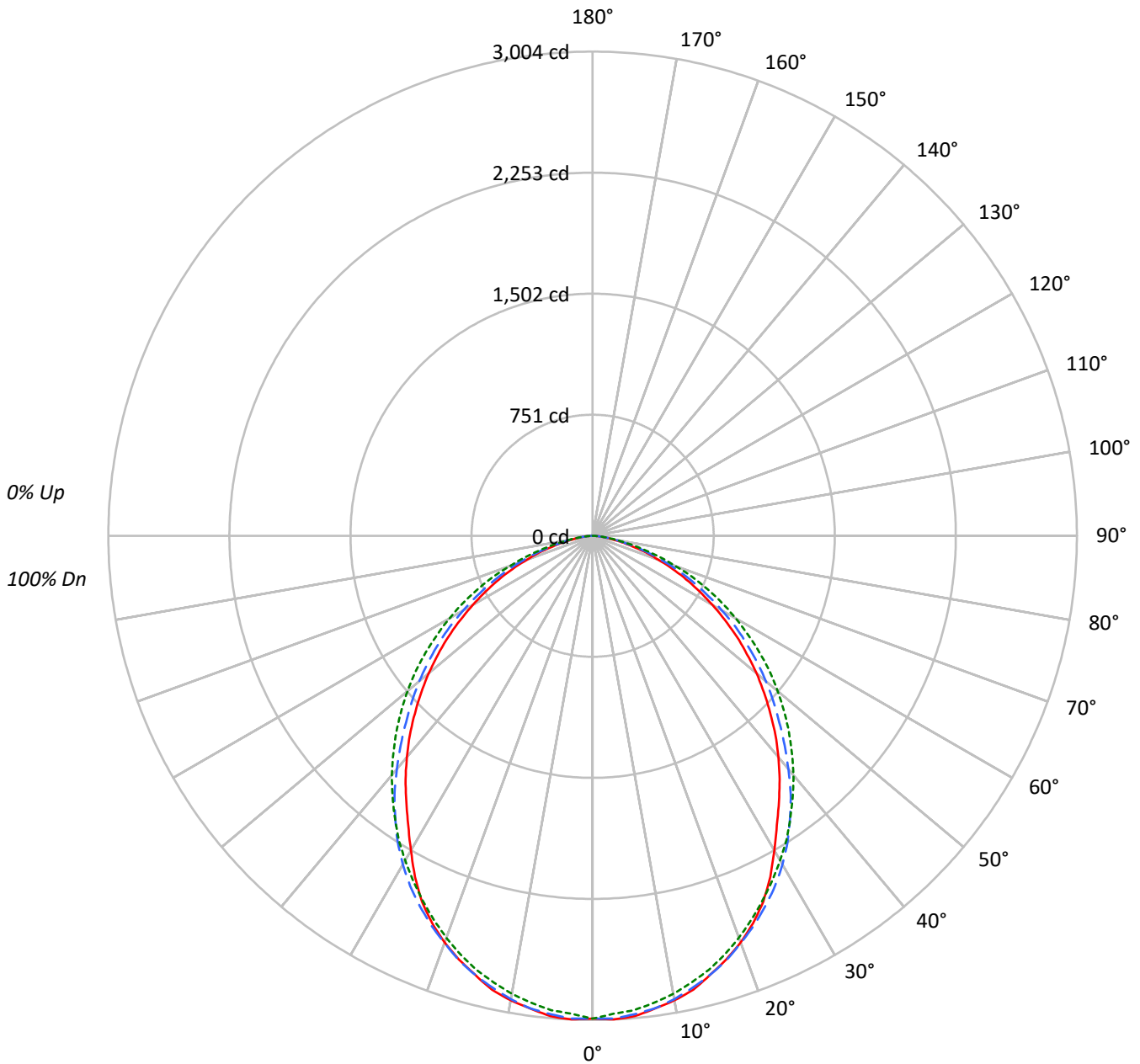
Lumens per Lamp: N/A
Luminaire Lumens: 6927.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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-LD4-2HI-35-UNV-93-87-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°	8061	8061	8061
5°	8083	8049	7980
10°	7997	7975	7884
15°	7855	7855	7765
20°	7689	7699	7600
25°	7436	7528	7408
30°	7002	7317	7227
35°	6616	7013	7024
40°	6295	6634	6808
45°	5934	6232	6552
50°	5555	5873	6273
55°	5124	5464	5934
60°	4614	4986	5519
65°	4074	4434	5020
70°	3396	3776	4265
75°	2668	3015	3339
80°	1908	2123	2354
85°	1244	1244	1173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.1	4.1
10°-20°	792.4	11.4
20°-30°	1157.9	16.7
30°-40°	1314.4	19.0
40°-50°	1268.8	18.3
50°-60°	1046.7	15.1
60°-70°	697.0	10.1
70°-80°	311.9	4.5
80°-90°	55.8	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°	2232.4	32.2
0°-40°	3546.7	51.2
0°-60°	5862.3	84.6
0°-90°	6927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2996	2996	2996	2996	2996	
5°	2992	2991	2980	2964	2954	283
15°	2820	2827	2820	2807	2787	795
25°	2504	2524	2535	2517	2495	1147
35°	2014	2042	2135	2146	2138	1262
45°	1559	1586	1638	1712	1722	1203
55°	1092	1111	1165	1229	1265	975
65°	640	657	696	746	788	634
75°	257	270	290	304	321	281
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2995.7	2995.7	2995.7	2995.7	2995.7
2.5°	3003.8	3005.0	2998.1	2979.6	2968.1
5°	2992.3	2991.1	2979.6	2963.5	2954.3
7.5°	2958.9	2961.2	2957.8	2934.8	2922.1
10°	2926.7	2927.8	2918.6	2900.2	2885.3
12.5°	2885.3	2884.1	2871.5	2862.2	2838.1
15°	2819.7	2826.6	2819.7	2807.0	2787.4
17.5°	2756.4	2756.4	2761.0	2739.1	2724.1
20°	2685.0	2688.5	2688.5	2671.2	2653.9
22.5°	2602.1	2612.5	2616.0	2597.5	2576.8
25°	2504.3	2523.9	2535.4	2517.0	2495.1
27.5°	2385.8	2415.7	2450.2	2436.4	2412.3
30°	2253.4	2297.2	2354.7	2343.2	2325.9
32.5°	2128.0	2171.7	2251.1	2246.5	2237.3
35°	2014.0	2041.7	2134.9	2146.4	2138.3
37.5°	1905.9	1931.2	2018.6	2045.1	2038.2
40°	1791.9	1819.5	1888.6	1935.8	1938.1
42.5°	1679.1	1705.6	1762.0	1829.9	1829.9
45°	1559.4	1585.9	1637.7	1712.5	1721.7
47.5°	1442.1	1469.7	1520.3	1595.1	1610.1
50°	1327.0	1352.3	1402.9	1475.4	1498.4
52.5°	1207.3	1234.9	1284.4	1351.1	1384.5
55°	1092.2	1110.6	1164.7	1229.1	1264.8
57.5°	972.5	989.8	1050.8	1106.0	1142.8
60°	857.4	879.3	926.5	982.9	1025.4
62.5°	746.9	769.9	810.2	859.7	908.0
65°	639.9	657.2	696.3	745.8	788.4
67.5°	536.3	551.3	590.4	624.9	669.8
70°	431.6	451.1	479.9	513.3	542.1
72.5°	347.6	355.6	379.8	404.0	433.9
75°	256.6	270.5	290.0	303.8	321.1
77.5°	184.1	192.2	203.7	215.2	231.3
80°	123.1	126.6	137.0	139.3	151.9
82.5°	74.8	77.1	79.4	80.6	85.2
85°	40.3	40.3	40.3	38.0	38.0
87.5°	23.0	23.0	19.6	16.1	11.5
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)