

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: P558052

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-86-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: P558052
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-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

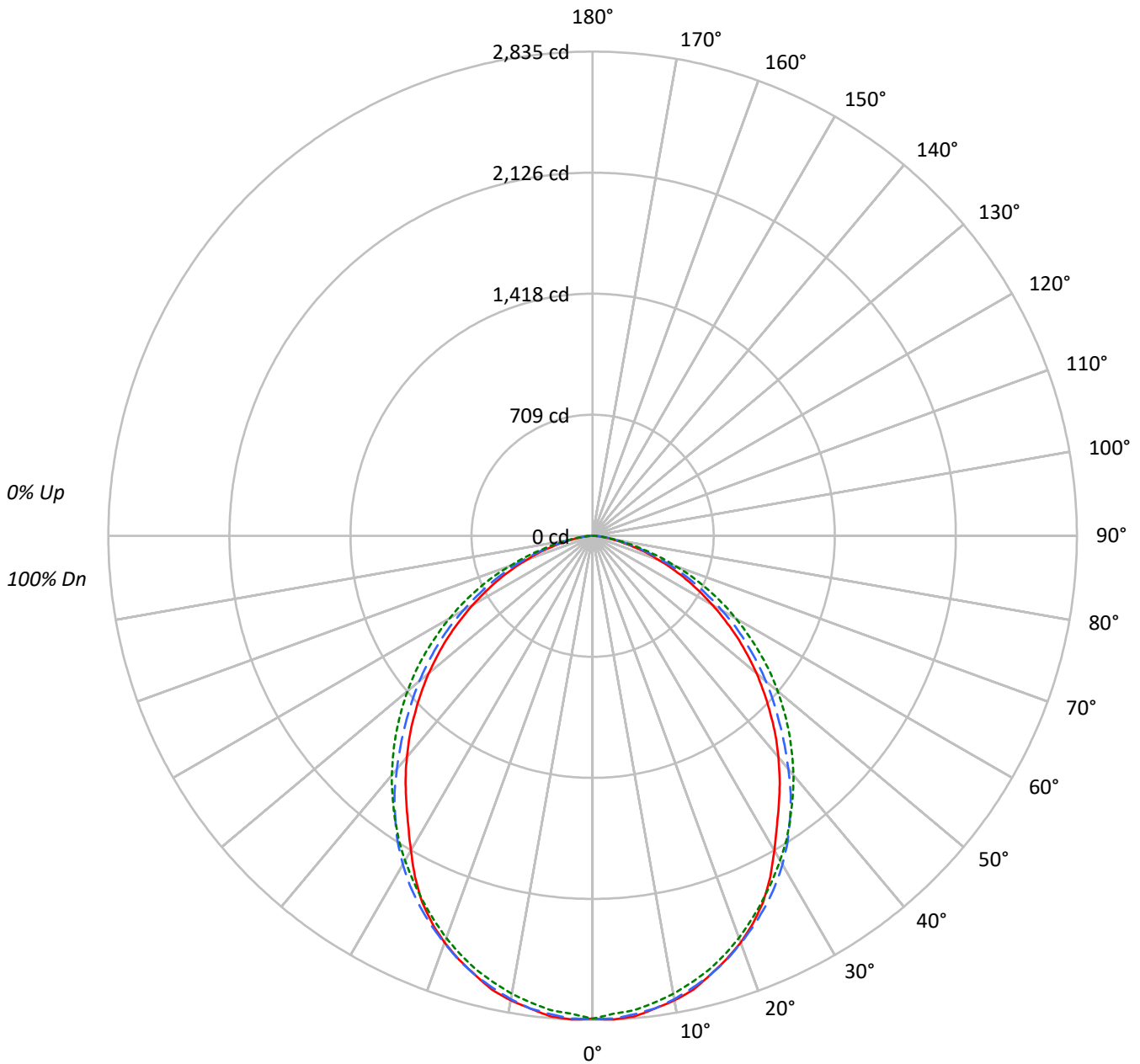
Lumens per Lamp: N/A
Luminaire Lumens: 6538.0 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7609	7609	7609
5°	7629	7597	7532
10°	7548	7527	7441
15°	7414	7414	7329
20°	7257	7267	7173
25°	7018	7105	6992
30°	6609	6906	6821
35°	6245	6619	6630
40°	5941	6262	6426
45°	5601	5882	6184
50°	5243	5543	5921
55°	4837	5157	5601
60°	4356	4706	5209
65°	3846	4185	4738
70°	3205	3564	4025
75°	2518	2846	3151
80°	1801	2004	2222
85°	1173	1173	1105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.2	4.1
10°-20°	747.9	11.4
20°-30°	1092.9	16.7
30°-40°	1240.6	19.0
40°-50°	1197.6	18.3
50°-60°	987.9	15.1
60°-70°	657.9	10.1
70°-80°	294.4	4.5
80°-90°	52.7	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°	2107.0	32.2
0°-40°	3347.6	51.2
0°-60°	5533.1	84.6
0°-90°	6538.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6538.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2828	2828	2828	2828	2828	
5°	2824	2823	2812	2797	2788	267
15°	2661	2668	2661	2649	2631	750
25°	2364	2382	2393	2376	2355	1082
35°	1901	1927	2015	2026	2018	1191
45°	1472	1497	1546	1616	1625	1136
55°	1031	1048	1099	1160	1194	920
65°	604	620	657	704	744	599
75°	242	255	274	287	303	265
85°	38	38	38	36	36	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2827.5	2827.5	2827.5	2827.5	2827.5
2.5°	2835.1	2836.2	2829.7	2812.3	2801.4
5°	2824.3	2823.2	2812.3	2797.1	2788.4
7.5°	2792.8	2794.9	2791.7	2769.9	2758.0
10°	2762.3	2763.4	2754.7	2737.4	2723.2
12.5°	2723.2	2722.1	2710.2	2701.5	2678.7
15°	2661.3	2667.8	2661.3	2649.4	2630.9
17.5°	2601.6	2601.6	2605.9	2585.3	2571.2
20°	2534.2	2537.5	2537.5	2521.2	2504.9
22.5°	2456.0	2465.8	2469.1	2451.7	2432.1
25°	2363.7	2382.2	2393.0	2375.6	2355.0
27.5°	2251.8	2280.0	2312.6	2299.6	2276.8
30°	2126.9	2168.2	2222.5	2211.6	2195.3
32.5°	2008.5	2049.8	2124.7	2120.4	2111.7
35°	1900.9	1927.0	2015.0	2025.9	2018.3
37.5°	1798.8	1822.7	1905.3	1930.3	1923.8
40°	1691.3	1717.4	1782.5	1827.1	1829.2
42.5°	1584.8	1609.8	1663.1	1727.1	1727.1
45°	1471.9	1496.9	1545.7	1616.3	1625.0
47.5°	1361.1	1387.1	1434.9	1505.5	1519.7
50°	1252.4	1276.3	1324.1	1392.6	1414.3
52.5°	1139.5	1165.5	1212.3	1275.3	1306.8
55°	1030.9	1048.2	1099.3	1160.1	1193.8
57.5°	917.9	934.2	991.7	1043.9	1078.6
60°	809.3	829.9	874.4	927.7	967.9
62.5°	705.0	726.7	764.7	811.4	857.1
65°	604.0	620.3	657.2	703.9	744.1
67.5°	506.2	520.3	557.2	589.8	632.2
70°	407.3	425.8	453.0	484.5	511.6
72.5°	328.0	335.7	358.5	381.3	409.5
75°	242.2	255.3	273.7	286.8	303.1
77.5°	173.8	181.4	192.3	203.1	218.3
80°	116.2	119.5	129.3	131.4	143.4
82.5°	70.6	72.8	75.0	76.0	80.4
85°	38.0	38.0	38.0	35.8	35.8
87.5°	21.7	21.7	18.5	15.2	10.9
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)