

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: P558184

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-88-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: P558184
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-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

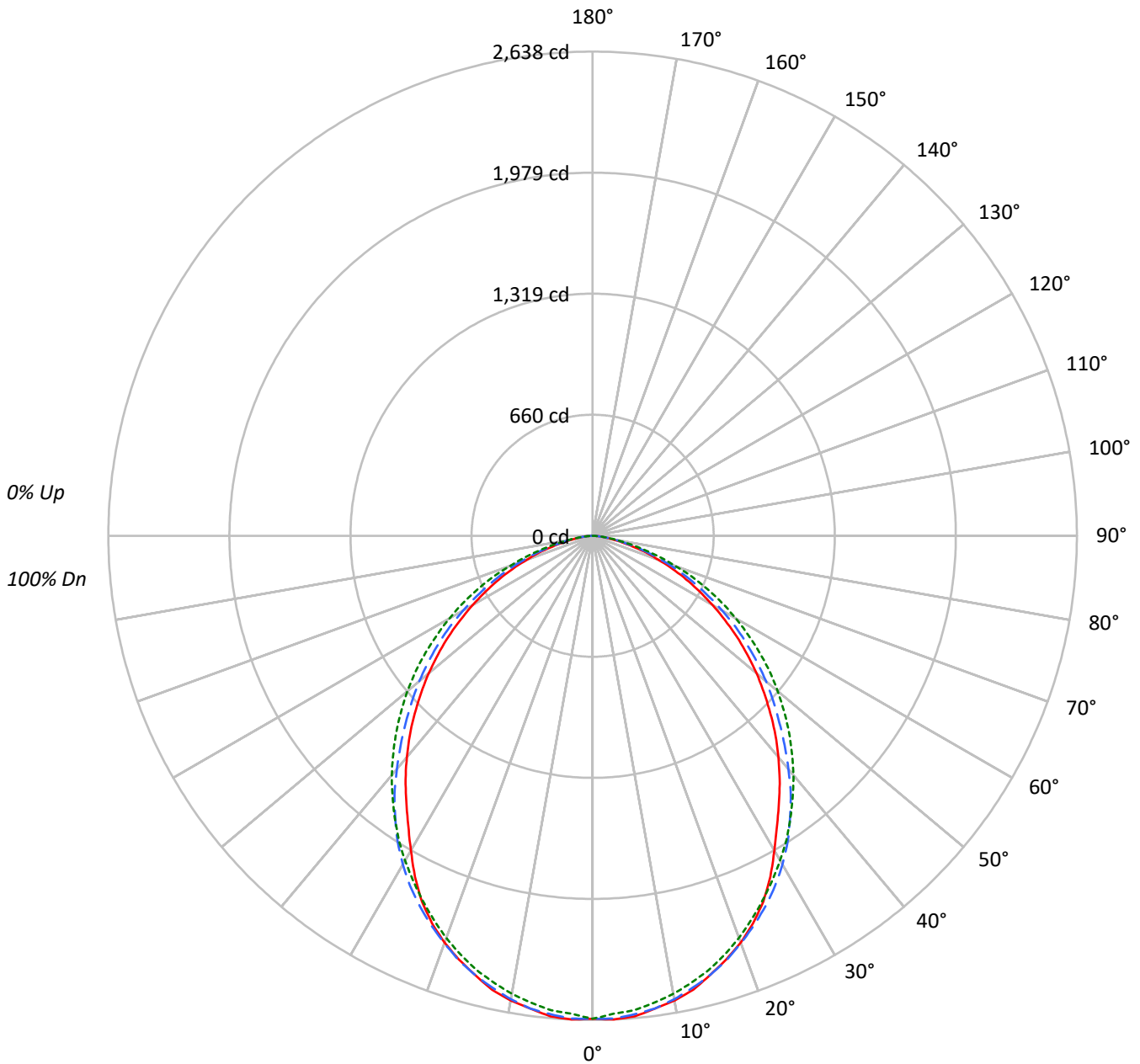
Lumens per Lamp: N/A
Luminaire Lumens: 6084.0 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7081	7081	7081
5°	7099	7069	7009
10°	7024	7004	6924
15°	6899	6899	6820
20°	6753	6762	6675
25°	6531	6612	6507
30°	6150	6426	6348
35°	5811	6160	6170
40°	5529	5827	5980
45°	5213	5474	5755
50°	4879	5159	5510
55°	4501	4799	5212
60°	4053	4379	4847
65°	3578	3894	4409
70°	2983	3316	3746
75°	2344	2648	2932
80°	1677	1864	2067
85°	1093	1093	1031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.7	4.1
10°-20°	696.0	11.4
20°-30°	1017.0	16.7
30°-40°	1154.4	19.0
40°-50°	1114.4	18.3
50°-60°	919.3	15.1
60°-70°	612.2	10.1
70°-80°	273.9	4.5
80°-90°	49.0	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°	1960.7	32.2
0°-40°	3115.1	51.2
0°-60°	5148.8	84.6
0°-90°	6084.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6084.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2631	2631	2631	2631	2631	
5°	2628	2627	2617	2603	2595	249
15°	2476	2483	2476	2465	2448	698
25°	2200	2217	2227	2211	2192	1007
35°	1769	1793	1875	1885	1878	1108
45°	1370	1393	1438	1504	1512	1057
55°	959	975	1023	1080	1111	856
65°	562	577	612	655	692	557
75°	225	238	255	267	282	246
85°	35	35	35	33	33	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2631.2	2631.2	2631.2	2631.2	2631.2
2.5°	2638.2	2639.3	2633.2	2617.0	2606.9
5°	2628.1	2627.1	2617.0	2602.9	2594.8
7.5°	2598.8	2600.8	2597.8	2577.6	2566.5
10°	2570.5	2571.5	2563.4	2547.3	2534.1
12.5°	2534.1	2533.1	2522.0	2513.9	2492.7
15°	2476.5	2482.6	2476.5	2465.4	2448.2
17.5°	2420.9	2420.9	2425.0	2405.8	2392.6
20°	2358.3	2361.3	2361.3	2346.1	2331.0
22.5°	2285.5	2294.6	2297.6	2281.4	2263.2
25°	2199.6	2216.7	2226.8	2210.7	2191.5
27.5°	2095.4	2121.7	2152.0	2139.9	2118.7
30°	1979.2	2017.6	2068.1	2058.0	2042.9
32.5°	1869.0	1907.4	1977.2	1973.1	1965.0
35°	1768.9	1793.2	1875.1	1885.2	1878.1
37.5°	1673.9	1696.2	1773.0	1796.2	1790.2
40°	1573.9	1598.1	1658.8	1700.2	1702.2
42.5°	1474.8	1498.0	1547.6	1607.2	1607.2
45°	1369.7	1392.9	1438.4	1504.1	1512.2
47.5°	1266.6	1290.8	1335.3	1401.0	1414.1
50°	1165.5	1187.7	1232.2	1295.9	1316.1
52.5°	1060.4	1084.6	1128.1	1186.7	1216.0
55°	959.3	975.4	1023.0	1079.6	1110.9
57.5°	854.1	869.3	922.9	971.4	1003.7
60°	753.1	772.3	813.7	863.2	900.6
62.5°	656.0	676.2	711.6	755.1	797.5
65°	562.0	577.2	611.5	655.0	692.4
67.5°	471.0	484.2	518.6	548.9	588.3
70°	379.1	396.2	421.5	450.8	476.1
72.5°	305.3	312.3	333.6	354.8	381.1
75°	225.4	237.5	254.7	266.9	282.0
77.5°	161.7	168.8	178.9	189.0	203.2
80°	108.2	111.2	120.3	122.3	133.4
82.5°	65.7	67.7	69.7	70.8	74.8
85°	35.4	35.4	35.4	33.4	33.4
87.5°	20.2	20.2	17.2	14.2	10.1
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)