

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: P557668

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-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: P557668
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-LD4-2STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

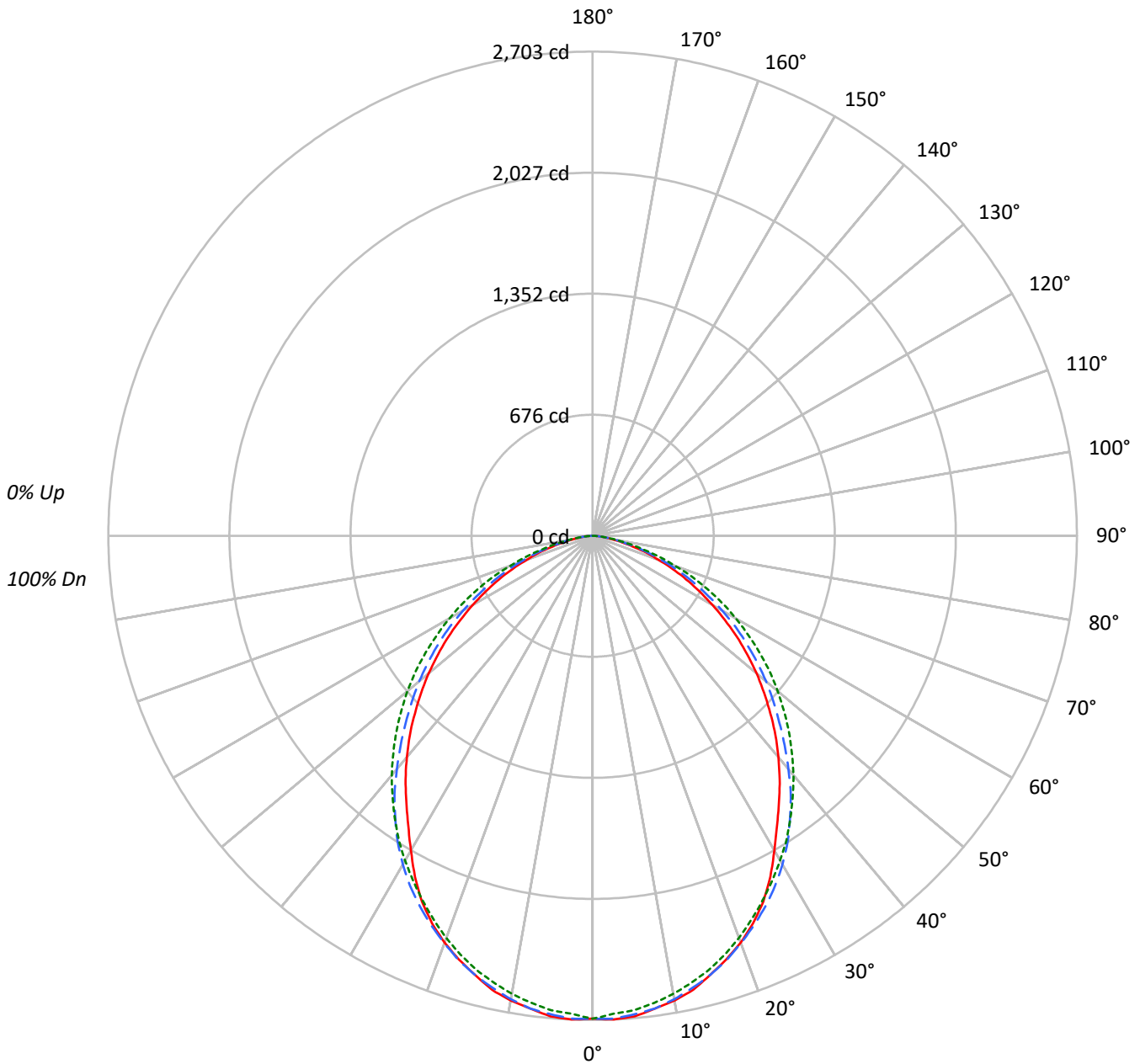
Lumens per Lamp: N/A
Luminaire Lumens: 6234.0 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	7255	7255	7255
5°	7274	7243	7182
10°	7197	7177	7095
15°	7070	7070	6989
20°	6920	6929	6840
25°	6692	6775	6667
30°	6302	6585	6504
35°	5955	6312	6322
40°	5665	5971	6127
45°	5341	5609	5897
50°	4999	5286	5645
55°	4611	4918	5340
60°	4153	4487	4966
65°	3667	3990	4518
70°	3056	3398	3838
75°	2402	2714	3005
80°	1717	1911	2118
85°	1121	1121	1056



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.8	4.1
10°-20°	713.1	11.4
20°-30°	1042.1	16.7
30°-40°	1182.9	19.0
40°-50°	1141.9	18.3
50°-60°	942.0	15.1
60°-70°	627.3	10.1
70°-80°	280.7	4.5
80°-90°	50.2	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°	2009.0	32.2
0°-40°	3191.9	51.2
0°-60°	5275.8	84.6
0°-90°	6234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2696	2696	2696	2696	2696	
5°	2693	2692	2682	2667	2659	255
15°	2538	2544	2538	2526	2509	715
25°	2254	2271	2282	2265	2246	1032
35°	1813	1837	1921	1932	1924	1136
45°	1403	1427	1474	1541	1550	1083
55°	983	1000	1048	1106	1138	877
65°	576	591	627	671	710	571
75°	231	243	261	273	289	253
85°	36	36	36	34	34	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2696.0	2696.0	2696.0	2696.0	2696.0
2.5°	2703.3	2704.3	2698.1	2681.5	2671.2
5°	2692.9	2691.9	2681.5	2667.0	2658.8
7.5°	2662.9	2665.0	2661.9	2641.1	2629.8
10°	2633.9	2634.9	2626.6	2610.1	2596.6
12.5°	2596.6	2595.6	2584.2	2575.9	2554.1
15°	2537.6	2543.8	2537.6	2526.2	2508.6
17.5°	2480.6	2480.6	2484.8	2465.1	2451.6
20°	2416.4	2419.5	2419.5	2404.0	2388.4
22.5°	2341.8	2351.1	2354.2	2337.7	2319.0
25°	2253.8	2271.4	2281.7	2265.2	2245.5
27.5°	2147.1	2174.0	2205.1	2192.7	2170.9
30°	2028.0	2067.3	2119.1	2108.8	2093.2
32.5°	1915.1	1954.5	2025.9	2021.8	2013.5
35°	1812.6	1837.4	1921.3	1931.7	1924.4
37.5°	1715.2	1738.0	1816.7	1840.5	1834.3
40°	1612.7	1637.5	1699.7	1742.1	1744.2
42.5°	1511.2	1535.0	1585.7	1646.8	1646.8
45°	1403.4	1427.3	1473.9	1541.2	1549.5
47.5°	1297.8	1322.6	1368.2	1435.5	1449.0
50°	1194.2	1217.0	1262.6	1327.8	1348.5
52.5°	1086.5	1111.4	1155.9	1216.0	1246.0
55°	982.9	999.5	1048.2	1106.2	1138.3
57.5°	875.2	890.7	945.6	995.4	1028.5
60°	771.6	791.3	833.8	884.5	922.8
62.5°	672.2	692.9	729.2	773.7	817.2
65°	575.9	591.4	626.6	671.2	709.5
67.5°	482.7	496.1	531.3	562.4	602.8
70°	388.4	406.0	431.9	461.9	487.8
72.5°	312.8	320.0	341.8	363.5	390.5
75°	231.0	243.4	261.0	273.4	289.0
77.5°	165.7	173.0	183.3	193.7	208.2
80°	110.8	113.9	123.3	125.3	136.7
82.5°	67.3	69.4	71.5	72.5	76.6
85°	36.3	36.3	36.3	34.2	34.2
87.5°	20.7	20.7	17.6	14.5	10.4
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)