

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: P557644

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-81-96-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: P557644
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-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

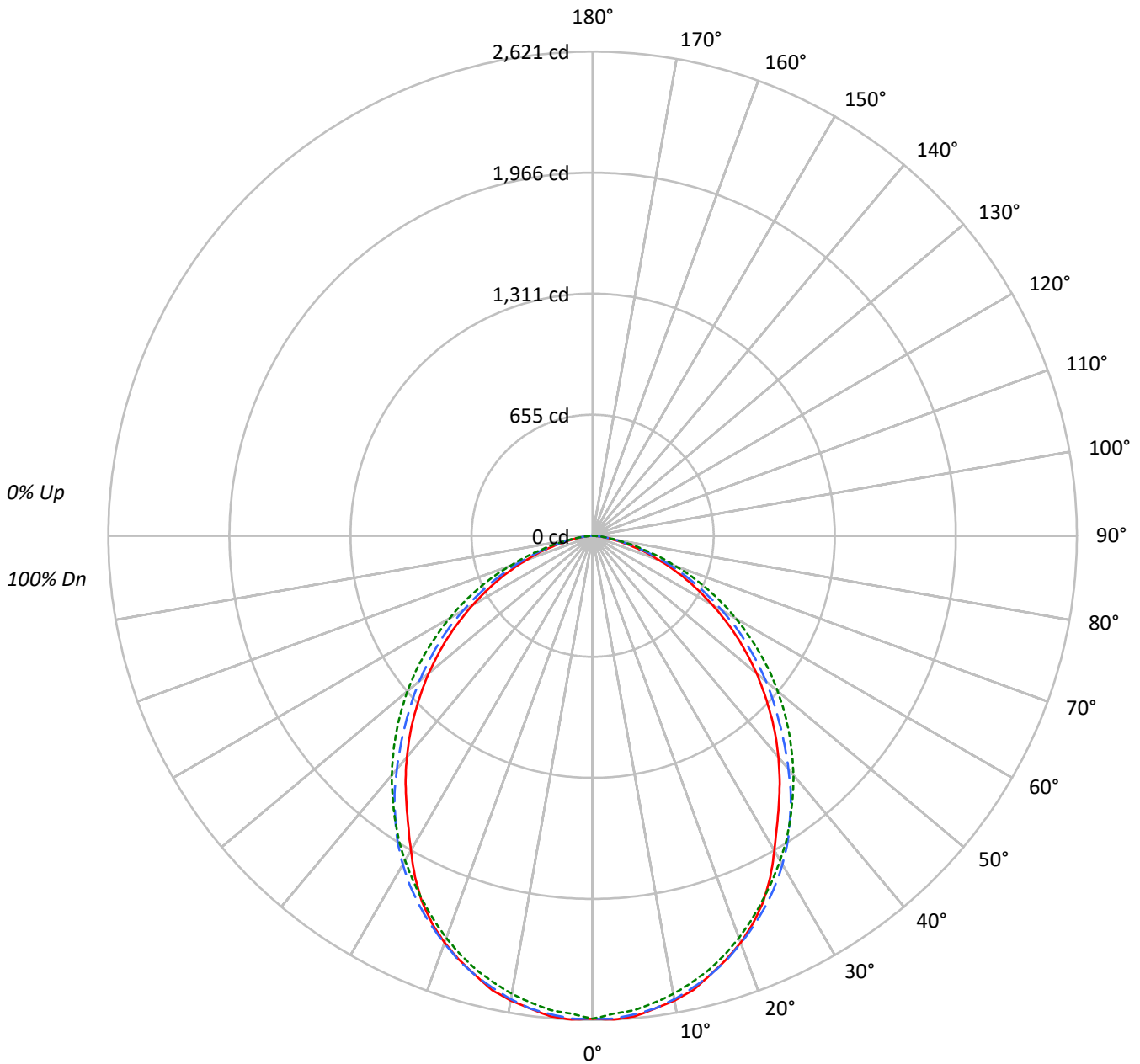
Lumens per Lamp: N/A
Luminaire Lumens: 6045.0 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7035	7035	7035
5°	7054	7024	6964
10°	6979	6960	6880
15°	6855	6855	6777
20°	6710	6718	6632
25°	6489	6570	6465
30°	6110	6385	6307
35°	5774	6120	6130
40°	5493	5789	5941
45°	5179	5439	5718
50°	4848	5125	5475
55°	4472	4769	5179
60°	4027	4351	4816
65°	3556	3869	4381
70°	2963	3295	3722
75°	2329	2632	2913
80°	1666	1852	2055
85°	1087	1087	1022



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.1	4.1
10°-20°	691.5	11.4
20°-30°	1010.5	16.7
30°-40°	1147.0	19.0
40°-50°	1107.3	18.3
50°-60°	913.4	15.1
60°-70°	608.3	10.1
70°-80°	272.2	4.5
80°-90°	48.7	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°	1948.1	32.2
0°-40°	3095.1	51.2
0°-60°	5115.8	84.6
0°-90°	6045.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6045.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2614	2614	2614	2614	2614	
5°	2611	2610	2600	2586	2578	247
15°	2461	2467	2461	2450	2432	694
25°	2186	2202	2213	2196	2177	1001
35°	1758	1782	1863	1873	1866	1101
45°	1361	1384	1429	1494	1502	1050
55°	953	969	1016	1073	1104	851
65°	558	574	608	651	688	554
75°	224	236	253	265	280	245
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2614.3	2614.3	2614.3	2614.3	2614.3
2.5°	2621.3	2622.3	2616.3	2600.2	2590.2
5°	2611.3	2610.3	2600.2	2586.2	2578.2
7.5°	2582.2	2584.2	2581.2	2561.1	2550.0
10°	2554.0	2555.1	2547.0	2530.9	2517.9
12.5°	2517.9	2516.9	2505.8	2497.8	2476.7
15°	2460.6	2466.7	2460.6	2449.6	2432.5
17.5°	2405.4	2405.4	2409.4	2390.3	2377.3
20°	2343.1	2346.1	2346.1	2331.1	2316.0
22.5°	2270.8	2279.9	2282.9	2266.8	2248.7
25°	2185.5	2202.5	2212.6	2196.5	2177.4
27.5°	2082.0	2108.1	2138.2	2126.2	2105.1
30°	1966.5	2004.7	2054.9	2044.8	2029.8
32.5°	1857.0	1895.2	1964.5	1960.5	1952.4
35°	1757.6	1781.7	1863.1	1873.1	1866.1
37.5°	1663.2	1685.3	1761.6	1784.7	1778.7
40°	1563.8	1587.9	1648.1	1689.3	1691.3
42.5°	1465.3	1488.4	1537.7	1596.9	1596.9
45°	1360.9	1384.0	1429.2	1494.5	1502.5
47.5°	1258.4	1282.5	1326.7	1392.0	1405.1
50°	1158.0	1180.1	1224.3	1287.6	1307.7
52.5°	1053.6	1077.7	1120.8	1179.1	1208.2
55°	953.1	969.2	1016.4	1072.6	1103.8
57.5°	848.7	863.7	917.0	965.2	997.3
60°	748.2	767.3	808.5	857.7	894.9
62.5°	651.8	671.9	707.1	750.2	792.4
65°	558.4	573.5	607.6	650.8	688.0
67.5°	468.0	481.1	515.2	545.4	584.5
70°	376.6	393.7	418.8	447.9	473.0
72.5°	303.3	310.3	331.4	352.5	378.6
75°	224.0	236.0	253.1	265.1	280.2
77.5°	160.7	167.7	177.8	187.8	201.9
80°	107.5	110.5	119.5	121.5	132.6
82.5°	65.3	67.3	69.3	70.3	74.3
85°	35.2	35.2	35.2	33.1	33.1
87.5°	20.1	20.1	17.1	14.1	10.0
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)