

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: P558048

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-84-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: P558048
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

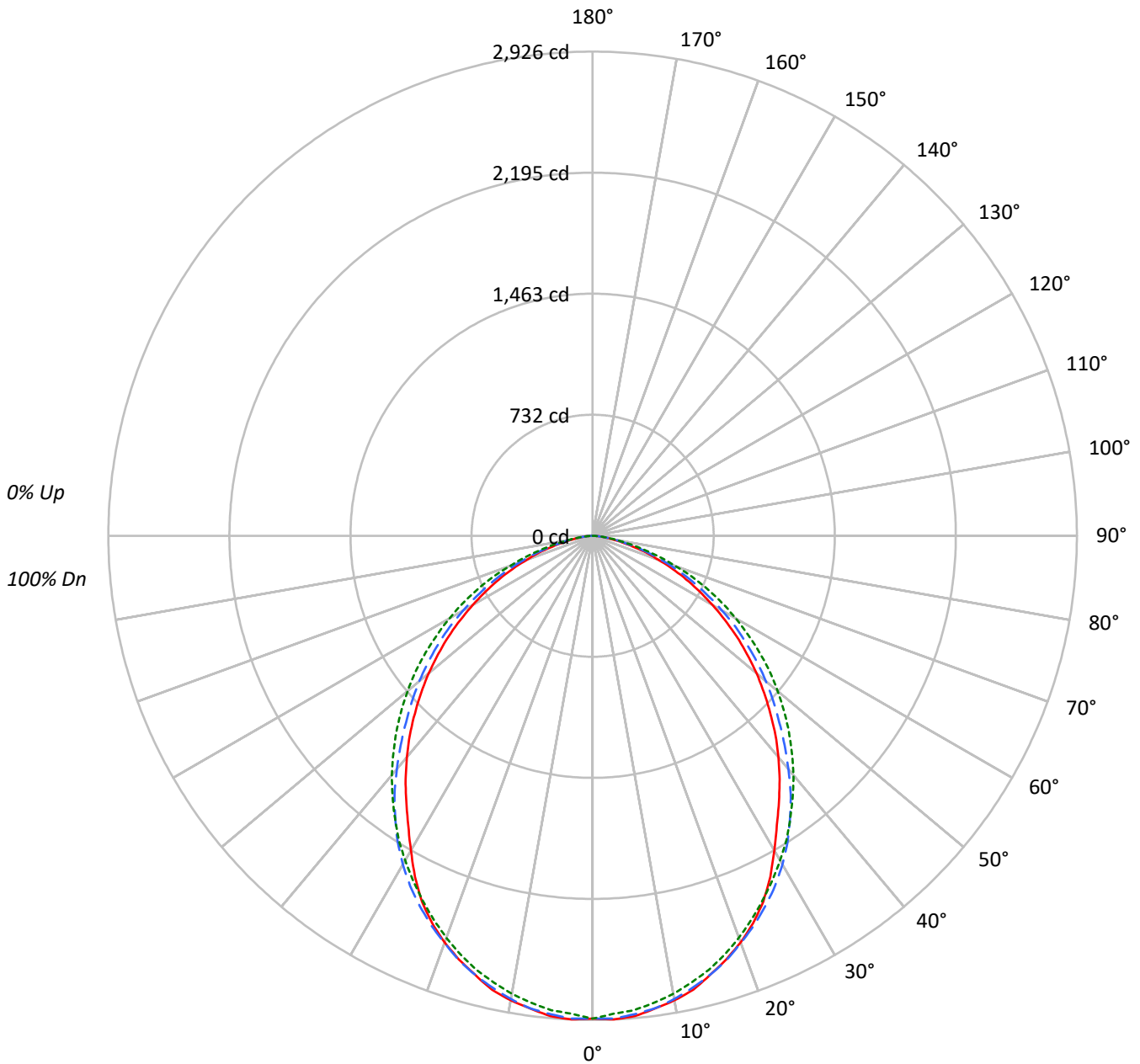
Lumens per Lamp: N/A
Luminaire Lumens: 6747.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (Ain): 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°	7852	7852	7852
5°	7873	7840	7773
10°	7789	7768	7679
15°	7651	7651	7564
20°	7489	7499	7403
25°	7242	7332	7216
30°	6820	7127	7040
35°	6444	6831	6842
40°	6131	6462	6631
45°	5780	6071	6382
50°	5411	5721	6110
55°	4991	5322	5780
60°	4494	4857	5375
65°	3969	4318	4890
70°	3308	3677	4154
75°	2599	2937	3252
80°	1858	2067	2294
85°	1210	1210	1142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.7	4.1
10°-20°	771.8	11.4
20°-30°	1127.8	16.7
30°-40°	1280.2	19.0
40°-50°	1235.9	18.3
50°-60°	1019.5	15.1
60°-70°	678.9	10.1
70°-80°	303.8	4.5
80°-90°	54.3	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°	2174.4	32.2
0°-40°	3454.6	51.2
0°-60°	5709.9	84.6
0°-90°	6747.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6747.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2918	2918	2918	2918	2918	
5°	2914	2913	2902	2886	2878	276
15°	2746	2753	2746	2734	2715	774
25°	2439	2458	2470	2452	2430	1117
35°	1962	1989	2079	2091	2083	1229
45°	1519	1545	1595	1668	1677	1172
55°	1064	1082	1134	1197	1232	949
65°	623	640	678	726	768	618
75°	250	263	282	296	313	273
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2917.9	2917.9	2917.9	2917.9	2917.9
2.5°	2925.8	2926.9	2920.1	2902.2	2891.0
5°	2914.5	2913.4	2902.2	2886.5	2877.5
7.5°	2882.0	2884.3	2880.9	2858.5	2846.2
10°	2850.6	2851.8	2842.8	2824.9	2810.3
12.5°	2810.3	2809.2	2796.8	2787.9	2764.3
15°	2746.4	2753.1	2746.4	2734.1	2715.0
17.5°	2684.7	2684.7	2689.2	2667.9	2653.4
20°	2615.2	2618.6	2618.6	2601.8	2585.0
22.5°	2534.5	2544.6	2548.0	2530.0	2509.9
25°	2439.2	2458.3	2469.5	2451.6	2430.3
27.5°	2323.8	2352.9	2386.6	2373.1	2349.6
30°	2194.9	2237.5	2293.5	2282.3	2265.5
32.5°	2072.7	2115.3	2192.6	2188.1	2179.2
35°	1961.7	1988.6	2079.4	2090.6	2082.8
37.5°	1856.3	1881.0	1966.2	1992.0	1985.3
40°	1745.4	1772.3	1839.5	1885.5	1887.7
42.5°	1635.5	1661.3	1716.2	1782.4	1782.4
45°	1518.9	1544.7	1595.2	1668.0	1677.0
47.5°	1404.6	1431.5	1480.8	1553.7	1568.2
50°	1292.5	1317.1	1366.5	1437.1	1459.5
52.5°	1175.9	1202.8	1251.0	1316.0	1348.5
55°	1063.8	1081.7	1134.4	1197.2	1232.0
57.5°	947.2	964.0	1023.5	1077.3	1113.1
60°	835.1	856.4	902.4	957.3	998.8
62.5°	727.5	749.9	789.2	837.4	884.5
65°	623.3	640.1	678.2	726.4	767.9
67.5°	522.4	536.9	575.1	608.7	652.4
70°	420.4	439.4	467.4	500.0	528.0
72.5°	338.5	346.4	369.9	393.5	422.6
75°	250.0	263.4	282.5	295.9	312.8
77.5°	179.4	187.2	198.4	209.6	225.3
80°	119.9	123.3	133.4	135.6	148.0
82.5°	72.9	75.1	77.3	78.5	83.0
85°	39.2	39.2	39.2	37.0	37.0
87.5°	22.4	22.4	19.1	15.7	11.2
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)