

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: P557998

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-93-97-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: P557998
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-30-UNV-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

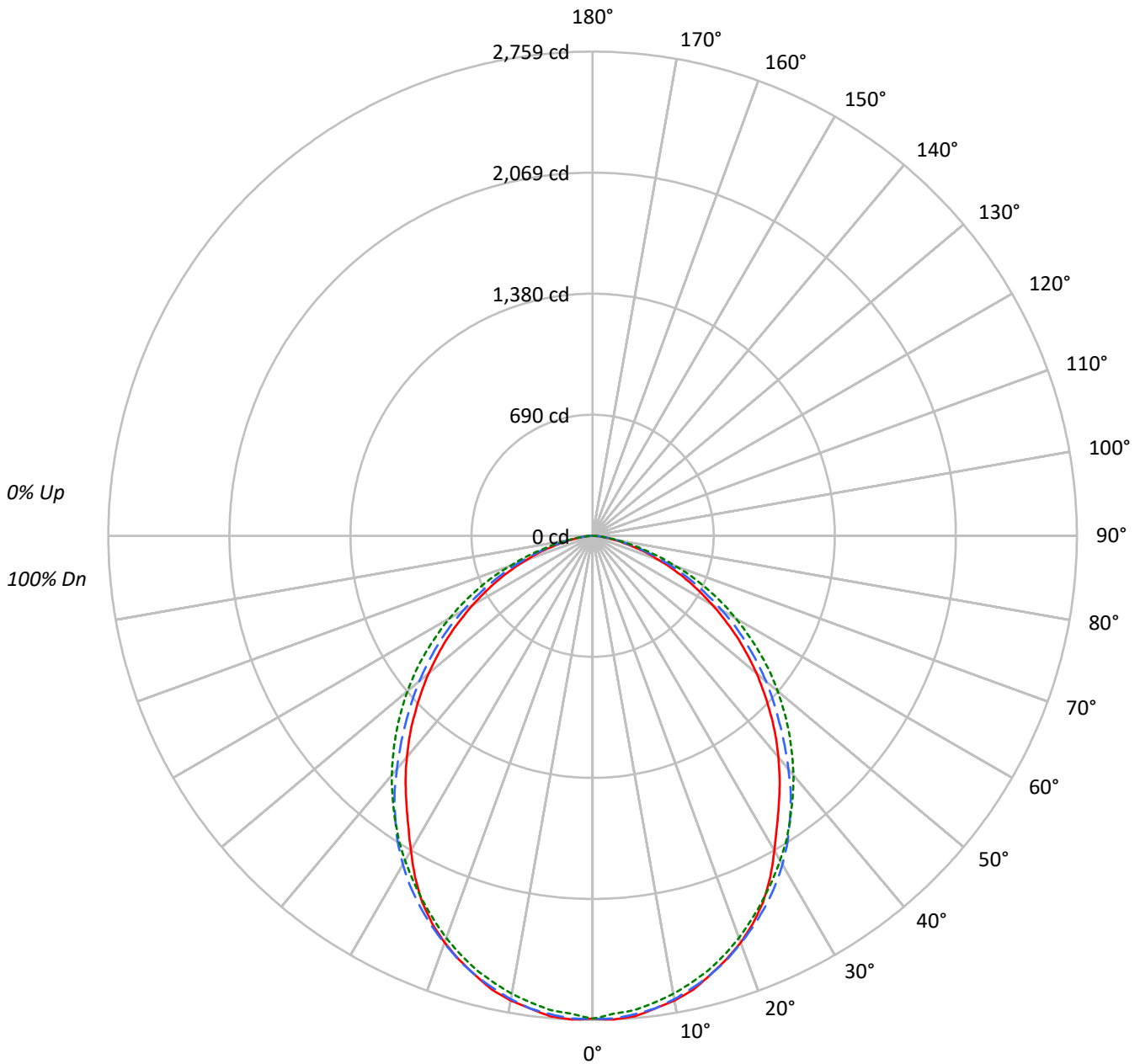
Lumens per Lamp: N/A
Luminaire Lumens: 6363.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7405	7405	7405
5°	7425	7393	7331
10°	7346	7326	7242
15°	7216	7216	7133
20°	7063	7072	6981
25°	6830	6915	6805
30°	6432	6721	6639
35°	6078	6442	6453
40°	5782	6094	6254
45°	5452	5725	6019
50°	5103	5395	5762
55°	4707	5020	5451
60°	4239	4580	5069
65°	3743	4073	4611
70°	3119	3468	3917
75°	2452	2770	3067
80°	1753	1949	2162
85°	1142	1142	1078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.1	4.1
10°-20°	727.9	11.4
20°-30°	1063.7	16.7
30°-40°	1207.4	19.0
40°-50°	1165.5	18.3
50°-60°	961.5	15.1
60°-70°	640.3	10.1
70°-80°	286.5	4.5
80°-90°	51.2	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°	2050.6	32.2
0°-40°	3258.0	51.2
0°-60°	5385.0	84.6
0°-90°	6363.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2752	2752	2752	2752	2752	
5°	2749	2748	2737	2722	2714	260
15°	2590	2596	2590	2578	2560	730
25°	2300	2318	2329	2312	2292	1053
35°	1850	1875	1961	1972	1964	1159
45°	1432	1457	1504	1573	1582	1105
55°	1003	1020	1070	1129	1162	895
65°	588	604	640	685	724	583
75°	236	248	266	279	295	258
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2751.8	2751.8	2751.8	2751.8	2751.8
2.5°	2759.2	2760.3	2753.9	2737.0	2726.5
5°	2748.7	2747.6	2737.0	2722.2	2713.8
7.5°	2718.0	2720.1	2716.9	2695.8	2684.2
10°	2688.4	2689.5	2681.0	2664.1	2650.3
12.5°	2650.3	2649.3	2637.7	2629.2	2607.0
15°	2590.1	2596.4	2590.1	2578.5	2560.5
17.5°	2531.9	2531.9	2536.2	2516.1	2502.3
20°	2466.4	2469.6	2469.6	2453.7	2437.9
22.5°	2390.3	2399.8	2403.0	2386.0	2367.0
25°	2300.4	2318.4	2329.0	2312.0	2292.0
27.5°	2191.5	2219.0	2250.7	2238.0	2215.8
30°	2070.0	2110.1	2163.0	2152.4	2136.6
32.5°	1954.7	1994.9	2067.8	2063.6	2055.2
35°	1850.1	1875.4	1961.1	1971.6	1964.2
37.5°	1750.7	1773.9	1854.3	1878.6	1872.3
40°	1646.0	1671.4	1734.8	1778.2	1780.3
42.5°	1542.4	1566.7	1618.5	1680.9	1680.9
45°	1432.5	1456.8	1504.4	1573.1	1581.5
47.5°	1324.6	1350.0	1396.5	1465.2	1479.0
50°	1218.9	1242.2	1288.7	1355.3	1376.4
52.5°	1109.0	1134.4	1179.8	1241.1	1271.8
55°	1003.3	1020.2	1069.9	1129.1	1161.8
57.5°	893.3	909.2	965.2	1015.9	1049.8
60°	787.6	807.7	851.0	902.8	941.9
62.5°	686.1	707.3	744.3	789.7	834.1
65°	587.8	603.6	639.6	685.1	724.2
67.5°	492.6	506.4	542.3	574.0	615.3
70°	396.4	414.4	440.8	471.5	497.9
72.5°	319.3	326.7	348.9	371.1	398.6
75°	235.8	248.4	266.4	279.1	295.0
77.5°	169.1	176.5	187.1	197.7	212.5
80°	113.1	116.3	125.8	127.9	139.5
82.5°	68.7	70.8	72.9	74.0	78.2
85°	37.0	37.0	37.0	34.9	34.9
87.5°	21.1	21.1	18.0	14.8	10.6
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)