

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: P556493

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-96-EDD**

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: P556493
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-LD4-1LO-35-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

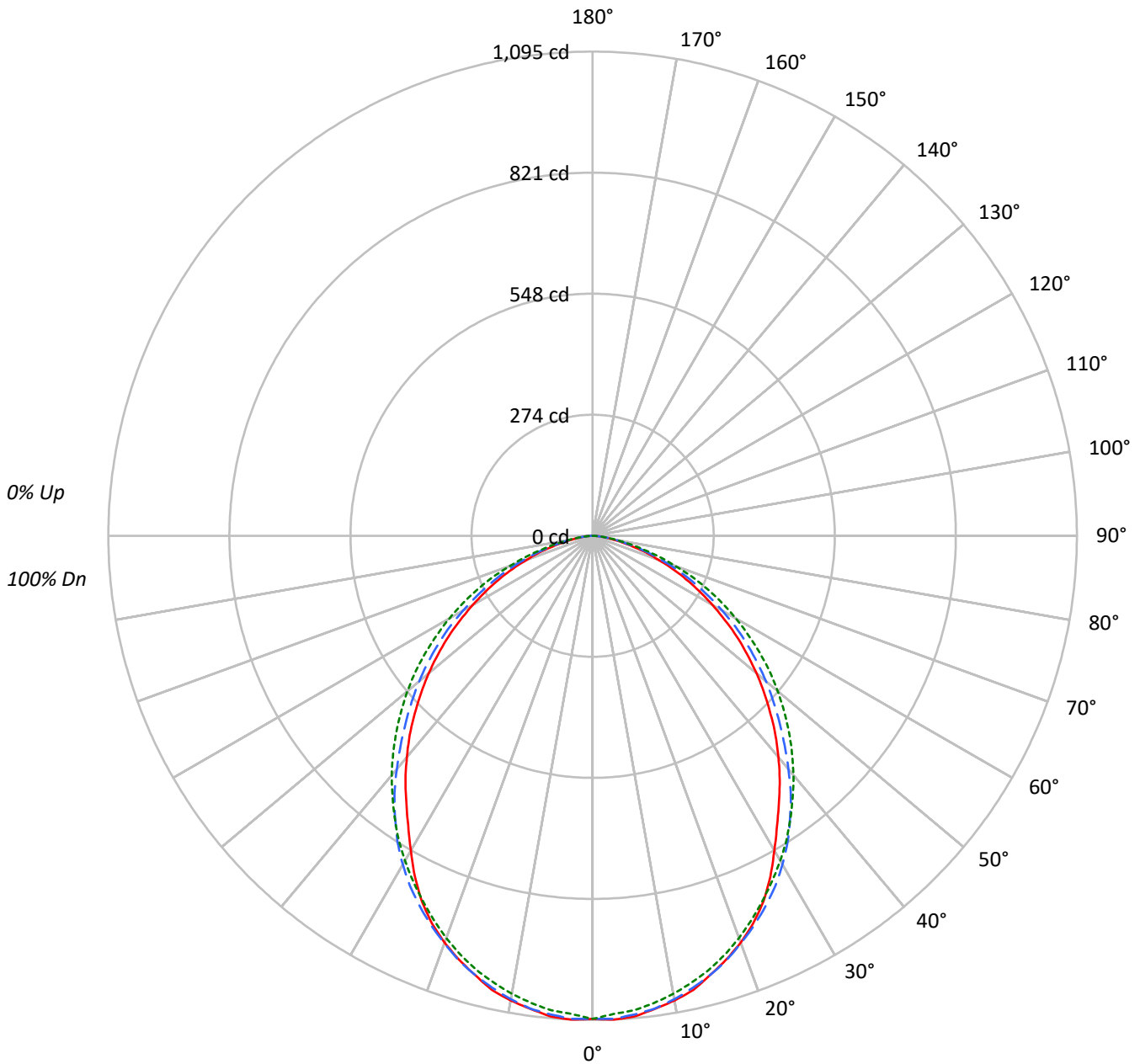
Lumens per Lamp: N/A
Luminaire Lumens: 2526.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2940	2940	2940
5°	2948	2935	2910
10°	2916	2908	2875
15°	2864	2864	2832
20°	2804	2808	2771
25°	2711	2745	2702
30°	2553	2668	2636
35°	2413	2557	2562
40°	2295	2419	2483
45°	2164	2273	2389
50°	2026	2142	2287
55°	1869	1993	2164
60°	1683	1818	2012
65°	1486	1617	1831
70°	1238	1377	1555
75°	973	1100	1218
80°	696	773	859
85°	454	454	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.9	4.1
10°-20°	288.9	11.4
20°-30°	422.3	16.7
30°-40°	479.3	19.0
40°-50°	462.7	18.3
50°-60°	381.7	15.1
60°-70°	254.2	10.1
70°-80°	113.7	4.5
80°-90°	20.4	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°	814.1	32.2
0°-40°	1293.4	51.2
0°-60°	2137.7	84.6
0°-90°	2526.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2526.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1092	1092	1092	1092	1092	
5°	1091	1091	1087	1081	1077	103
15°	1028	1031	1028	1024	1016	290
25°	913	920	925	918	910	418
35°	734	744	778	783	780	460
45°	569	578	597	624	628	439
55°	398	405	425	448	461	355
65°	233	240	254	272	288	231
75°	94	99	106	111	117	102
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1092.4	1092.4	1092.4	1092.4	1092.4
2.5°	1095.4	1095.8	1093.3	1086.6	1082.4
5°	1091.2	1090.8	1086.6	1080.7	1077.3
7.5°	1079.0	1079.8	1078.6	1070.2	1065.6
10°	1067.2	1067.7	1064.3	1057.6	1052.1
12.5°	1052.1	1051.7	1047.1	1043.7	1034.9
15°	1028.2	1030.7	1028.2	1023.6	1016.5
17.5°	1005.1	1005.1	1006.8	998.8	993.4
20°	979.1	980.4	980.4	974.1	967.8
22.5°	948.9	952.7	953.9	947.2	939.7
25°	913.2	920.4	924.6	917.8	909.9
27.5°	870.0	880.9	893.5	888.5	879.7
30°	821.7	837.7	858.7	854.5	848.2
32.5°	776.0	791.9	820.9	819.2	815.9
35°	734.4	744.5	778.5	782.7	779.8
37.5°	695.0	704.2	736.1	745.8	743.3
40°	653.4	663.5	688.7	705.9	706.7
42.5°	612.3	622.0	642.5	667.3	667.3
45°	568.7	578.3	597.2	624.5	627.8
47.5°	525.9	535.9	554.4	581.7	587.1
50°	483.9	493.1	511.6	538.0	546.4
52.5°	440.2	450.3	468.4	492.7	504.9
55°	398.3	405.0	424.7	448.2	461.2
57.5°	354.6	360.9	383.2	403.3	416.7
60°	312.7	320.6	337.8	358.4	373.9
62.5°	272.4	280.8	295.5	313.5	331.1
65°	233.3	239.6	253.9	272.0	287.5
67.5°	195.6	201.0	215.3	227.9	244.3
70°	157.4	164.5	175.0	187.2	197.7
72.5°	126.7	129.7	138.5	147.3	158.2
75°	93.6	98.6	105.8	110.8	117.1
77.5°	67.1	70.1	74.3	78.5	84.4
80°	44.9	46.2	49.9	50.8	55.4
82.5°	27.3	28.1	29.0	29.4	31.1
85°	14.7	14.7	14.7	13.8	13.8
87.5°	8.4	8.4	7.1	5.9	4.2
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)