

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: P556872

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-88-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: P556872
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-LD4-1STD-50-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

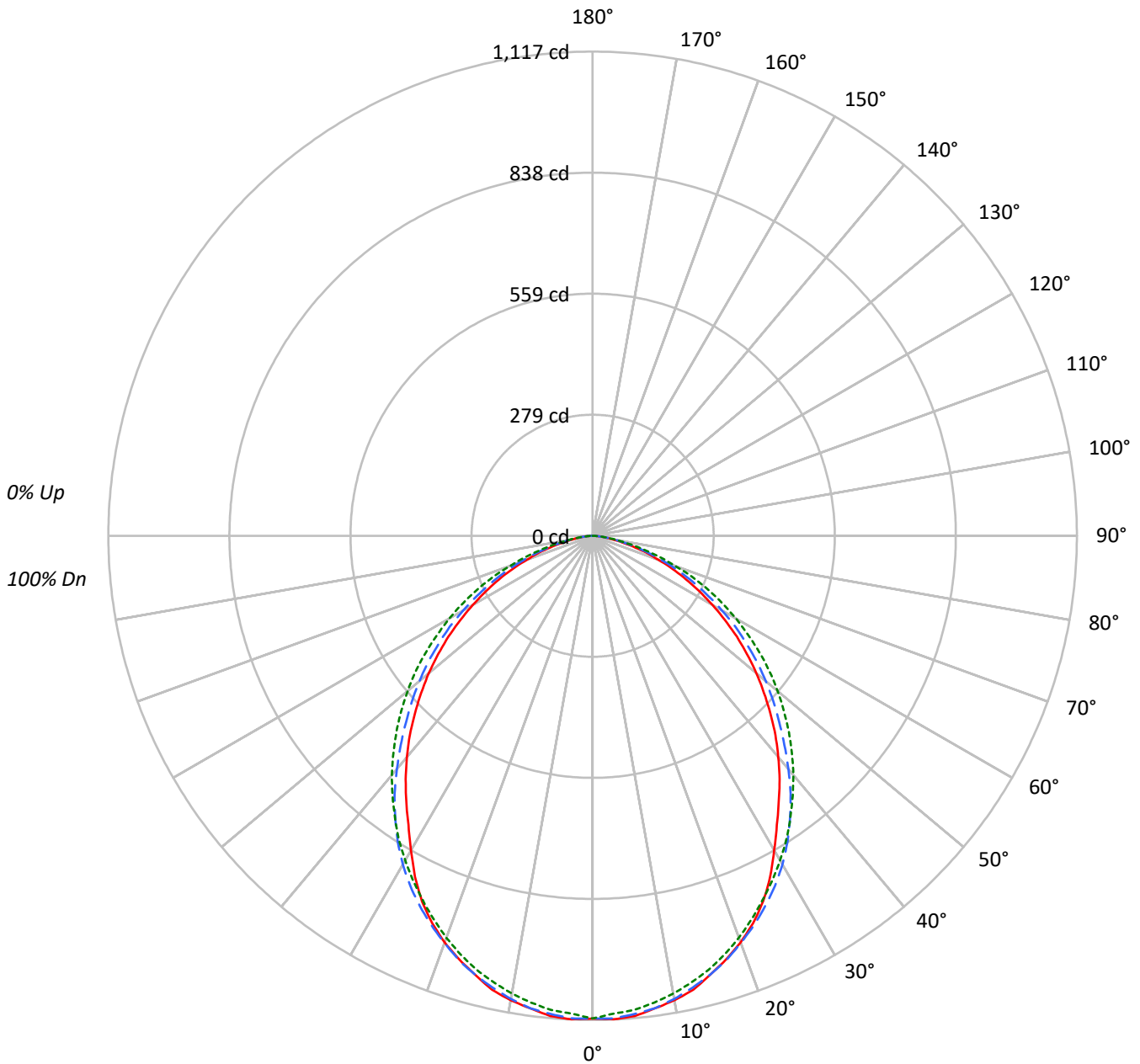
Lumens per Lamp: N/A
Luminaire Lumens: 2575.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2997	2997	2997
5°	3005	2992	2967
10°	2973	2965	2931
15°	2920	2920	2887
20°	2858	2862	2825
25°	2764	2798	2754
30°	2603	2720	2687
35°	2460	2607	2611
40°	2340	2466	2531
45°	2206	2317	2436
50°	2065	2183	2332
55°	1905	2031	2206
60°	1715	1854	2052
65°	1515	1648	1866
70°	1262	1404	1585
75°	992	1121	1241
80°	710	789	876
85°	463	463	435



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	4.1
10°-20°	294.6	11.4
20°-30°	430.4	16.7
30°-40°	488.6	19.0
40°-50°	471.7	18.3
50°-60°	389.1	15.1
60°-70°	259.1	10.1
70°-80°	115.9	4.5
80°-90°	20.8	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°	829.8	32.2
0°-40°	1318.4	51.2
0°-60°	2179.2	84.6
0°-90°	2575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2575.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1114	1114	1114	1114	1114	
5°	1112	1112	1108	1102	1098	105
15°	1048	1051	1048	1044	1036	295
25°	931	938	942	936	928	426
35°	749	759	794	798	795	469
45°	580	590	609	637	640	447
55°	406	413	433	457	470	362
65°	238	244	259	277	293	236
75°	95	100	108	113	119	104
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°	1113.6	1113.6	1113.6	1113.6	1113.6
2.5°	1116.6	1117.0	1114.5	1107.6	1103.4
5°	1112.3	1111.9	1107.6	1101.6	1098.2
7.5°	1099.9	1100.8	1099.5	1090.9	1086.2
10°	1088.0	1088.4	1085.0	1078.1	1072.6
12.5°	1072.6	1072.1	1067.4	1064.0	1055.0
15°	1048.2	1050.7	1048.2	1043.5	1036.2
17.5°	1024.6	1024.6	1026.3	1018.2	1012.7
20°	998.1	999.4	999.4	993.0	986.6
22.5°	967.3	971.2	972.4	965.6	957.9
25°	930.9	938.2	942.5	935.6	927.5
27.5°	886.9	898.0	910.8	905.7	896.7
30°	837.7	853.9	875.3	871.0	864.6
32.5°	791.0	807.3	836.8	835.1	831.7
35°	748.7	759.0	793.6	797.9	794.9
37.5°	708.5	717.9	750.4	760.2	757.7
40°	666.1	676.4	702.1	719.6	720.5
42.5°	624.2	634.0	655.0	680.2	680.2
45°	579.7	589.5	608.8	636.6	640.0
47.5°	536.1	546.3	565.2	593.0	598.5
50°	493.3	502.7	521.5	548.5	557.0
52.5°	448.8	459.1	477.4	502.3	514.7
55°	406.0	412.8	433.0	456.9	470.2
57.5°	361.5	367.9	390.6	411.1	424.8
60°	318.7	326.9	344.4	365.4	381.2
62.5°	277.7	286.2	301.2	319.6	337.6
65°	237.9	244.3	258.8	277.2	293.1
67.5°	199.4	204.9	219.5	232.3	249.0
70°	160.4	167.7	178.4	190.8	201.5
72.5°	129.2	132.2	141.2	150.2	161.3
75°	95.4	100.5	107.8	112.9	119.4
77.5°	68.5	71.4	75.7	80.0	86.0
80°	45.8	47.1	50.9	51.8	56.5
82.5°	27.8	28.7	29.5	29.9	31.7
85°	15.0	15.0	15.0	14.1	14.1
87.5°	8.6	8.6	7.3	6.0	4.3
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)