

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: P558233

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-88-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: P558233
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-LD4-3STD-30-UNV-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

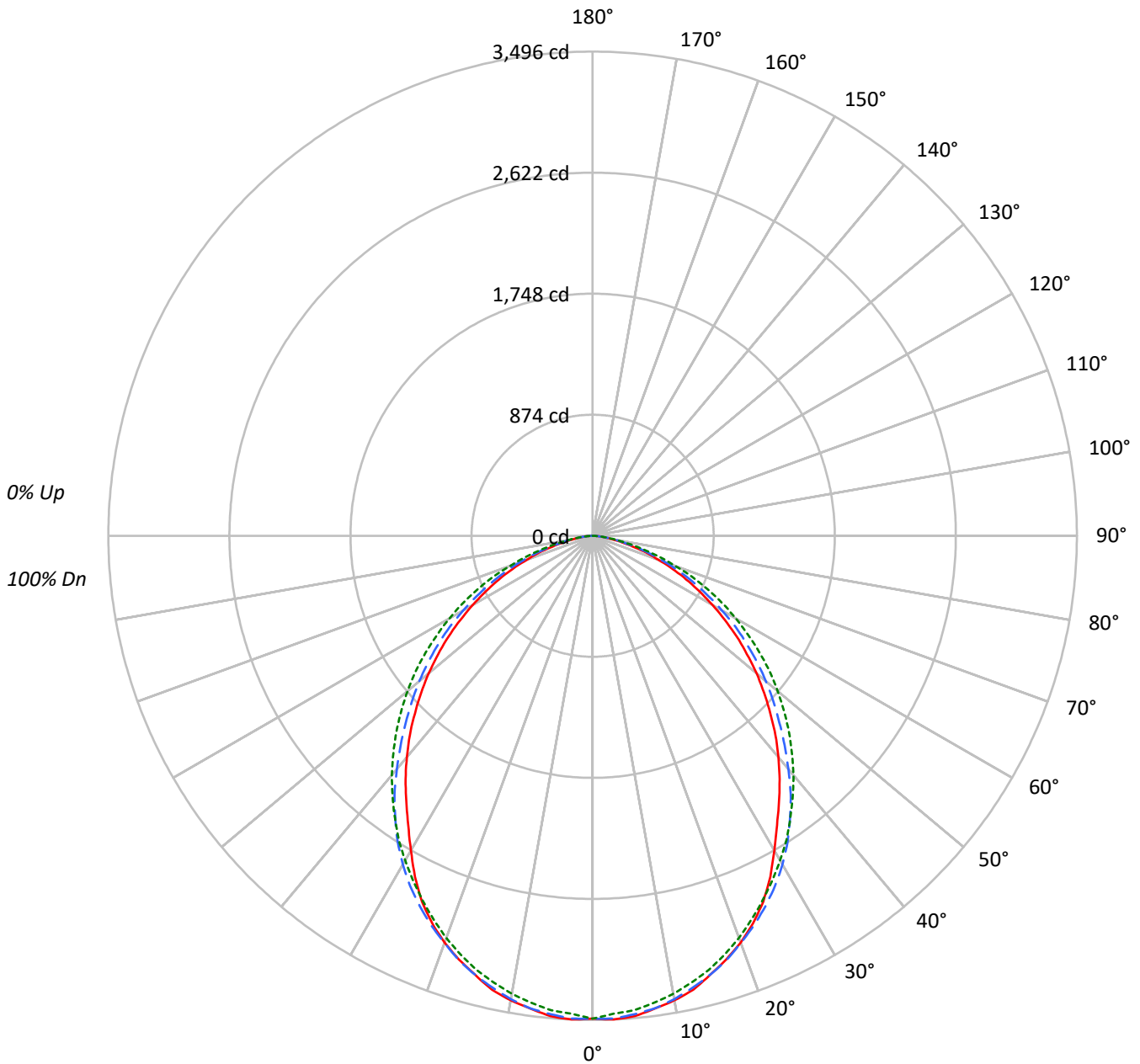
Lumens per Lamp: N/A
Luminaire Lumens: 8062.0 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	9382	9382	9382
5°	9407	9368	9288
10°	9307	9282	9176
15°	9143	9143	9038
20°	8949	8960	8845
25°	8654	8761	8622
30°	8149	8515	8411
35°	7700	8162	8176
40°	7326	7721	7924
45°	6907	7254	7626
50°	6466	6836	7301
55°	5963	6359	6906
60°	5371	5803	6423
65°	4742	5160	5842
70°	3952	4395	4964
75°	3106	3509	3885
80°	2221	2470	2740
85°	1448	1448	1365



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.3	4.1
10°-20°	922.2	11.4
20°-30°	1347.7	16.7
30°-40°	1529.7	19.0
40°-50°	1476.7	18.3
50°-60°	1218.2	15.1
60°-70°	811.2	10.1
70°-80°	363.0	4.5
80°-90°	65.0	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°	2598.2	32.2
0°-40°	4127.9	51.2
0°-60°	6822.8	84.6
0°-90°	8062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3487	3487	3487	3487	3487	
5°	3483	3481	3468	3449	3438	330
15°	3282	3290	3282	3267	3244	925
25°	2915	2937	2951	2929	2904	1335
35°	2344	2376	2485	2498	2489	1469
45°	1815	1846	1906	1993	2004	1400
55°	1271	1293	1356	1430	1472	1135
65°	745	765	810	868	918	738
75°	299	315	338	354	374	327
85°	47	47	47	44	44	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3486.6	3486.6	3486.6	3486.6	3486.6
2.5°	3496.0	3497.3	3489.3	3467.9	3454.5
5°	3482.6	3481.2	3467.9	3449.1	3438.4
7.5°	3443.7	3446.4	3442.4	3415.6	3400.9
10°	3406.2	3407.6	3396.9	3375.4	3358.0
12.5°	3358.0	3356.7	3341.9	3331.2	3303.1
15°	3281.7	3289.7	3281.7	3266.9	3244.2
17.5°	3208.0	3208.0	3213.4	3187.9	3170.5
20°	3125.0	3129.0	3129.0	3108.9	3088.8
22.5°	3028.5	3040.6	3044.6	3023.2	2999.0
25°	2914.7	2937.4	2950.8	2929.4	2903.9
27.5°	2776.7	2811.5	2851.7	2835.6	2807.5
30°	2622.7	2673.6	2740.5	2727.1	2707.0
32.5°	2476.7	2527.6	2620.0	2614.6	2603.9
35°	2344.0	2376.2	2484.7	2498.1	2488.7
37.5°	2218.1	2247.6	2349.4	2380.2	2372.2
40°	2085.5	2117.7	2198.0	2253.0	2255.6
42.5°	1954.3	1985.1	2050.7	2129.7	2129.7
45°	1815.0	1845.8	1906.0	1993.1	2003.8
47.5°	1678.3	1710.5	1769.4	1856.5	1873.9
50°	1544.4	1573.9	1632.8	1717.2	1744.0
52.5°	1405.1	1437.2	1494.8	1572.5	1611.4
55°	1271.1	1292.6	1355.5	1430.5	1472.1
57.5°	1131.8	1151.9	1222.9	1287.2	1330.1
60°	997.9	1023.3	1078.3	1143.9	1193.5
62.5°	869.3	896.1	943.0	1000.6	1056.8
65°	744.7	764.8	810.4	868.0	917.5
67.5°	624.2	641.6	687.1	727.3	779.6
70°	502.3	525.1	558.6	597.4	630.9
72.5°	404.5	413.9	442.0	470.1	505.0
75°	298.7	314.8	337.5	353.6	373.7
77.5°	214.3	223.7	237.1	250.5	269.2
80°	143.3	147.3	159.4	162.1	176.8
82.5°	87.1	89.7	92.4	93.8	99.1
85°	46.9	46.9	46.9	44.2	44.2
87.5°	26.8	26.8	22.8	18.8	13.4
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)