

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: P556932

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-81-86-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: P556932
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-LD4-2HI-30-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

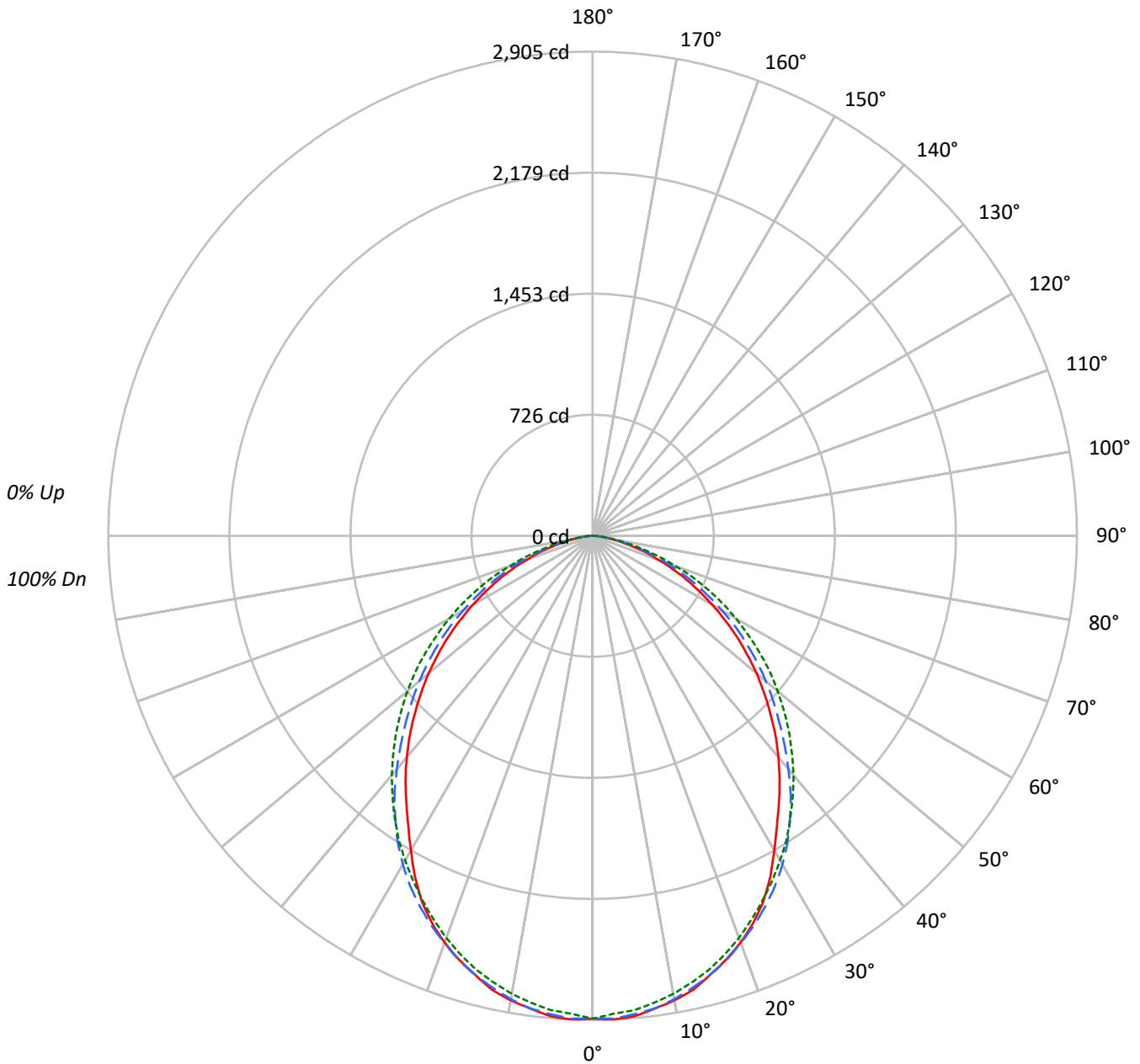
Lumens per Lamp: N/A
Luminaire Lumens: 6699.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7796	7796	7796
5°	7817	7784	7718
10°	7734	7713	7624
15°	7597	7597	7510
20°	7436	7446	7350
25°	7191	7280	7165
30°	6772	7076	6990
35°	6399	6782	6794
40°	6087	6416	6584
45°	5739	6027	6337
50°	5372	5680	6067
55°	4955	5285	5739
60°	4463	4822	5337
65°	3940	4288	4855
70°	3284	3651	4124
75°	2581	2916	3228
80°	1846	2052	2276
85°	1204	1204	1133



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.8	4.1
10°-20°	766.3	11.4
20°-30°	1119.8	16.7
30°-40°	1271.1	19.0
40°-50°	1227.1	18.3
50°-60°	1012.3	15.1
60°-70°	674.1	10.1
70°-80°	301.6	4.5
80°-90°	54.0	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°	2158.9	32.2
0°-40°	3430.0	51.2
0°-60°	5669.3	84.6
0°-90°	6699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2897	2897	2897	2897	2897	
5°	2894	2893	2882	2866	2857	274
15°	2727	2734	2727	2715	2696	769
25°	2422	2441	2452	2434	2413	1109
35°	1948	1974	2065	2076	2068	1220
45°	1508	1534	1584	1656	1665	1164
55°	1056	1074	1126	1189	1223	943
65°	619	636	673	721	762	614
75°	248	262	280	294	310	271
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°	2897.1	2897.1	2897.1	2897.1	2897.1
2.5°	2904.9	2906.0	2899.4	2881.6	2870.4
5°	2893.8	2892.7	2881.6	2866.0	2857.1
7.5°	2861.5	2863.8	2860.4	2838.2	2825.9
10°	2830.4	2831.5	2822.6	2804.8	2790.3
12.5°	2790.3	2789.2	2776.9	2768.0	2744.7
15°	2726.9	2733.5	2726.9	2714.6	2695.7
17.5°	2665.6	2665.6	2670.1	2648.9	2634.5
20°	2596.6	2600.0	2600.0	2583.3	2566.6
22.5°	2516.5	2526.5	2529.9	2512.0	2492.0
25°	2421.9	2440.8	2451.9	2434.1	2413.0
27.5°	2307.3	2336.2	2369.6	2356.2	2332.9
30°	2179.3	2221.6	2277.2	2266.1	2249.4
32.5°	2057.9	2100.2	2177.0	2172.6	2163.7
35°	1947.8	1974.5	2064.6	2075.7	2068.0
37.5°	1843.1	1867.6	1952.2	1977.8	1971.1
40°	1732.9	1759.7	1826.4	1872.1	1874.3
42.5°	1623.9	1649.5	1704.0	1769.7	1769.7
45°	1508.1	1533.7	1583.8	1656.1	1665.1
47.5°	1394.6	1421.3	1470.3	1542.6	1557.1
50°	1283.3	1307.8	1356.7	1426.9	1449.1
52.5°	1167.5	1194.3	1242.1	1306.7	1338.9
55°	1056.2	1074.0	1126.4	1188.7	1223.2
57.5°	940.5	957.2	1016.2	1069.6	1105.2
60°	829.2	850.3	896.0	950.5	991.7
62.5°	722.3	744.6	783.6	831.4	878.2
65°	618.8	635.5	673.4	721.2	762.4
67.5°	518.7	533.1	571.0	604.4	647.8
70°	417.4	436.3	464.1	496.4	524.2
72.5°	336.1	343.9	367.3	390.7	419.6
75°	248.2	261.6	280.5	293.8	310.5
77.5°	178.1	185.9	197.0	208.1	223.7
80°	119.1	122.4	132.4	134.7	146.9
82.5°	72.3	74.6	76.8	77.9	82.4
85°	39.0	39.0	39.0	36.7	36.7
87.5°	22.3	22.3	18.9	15.6	11.1
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)