

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: P558424

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-82-88-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: P558424
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-50-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

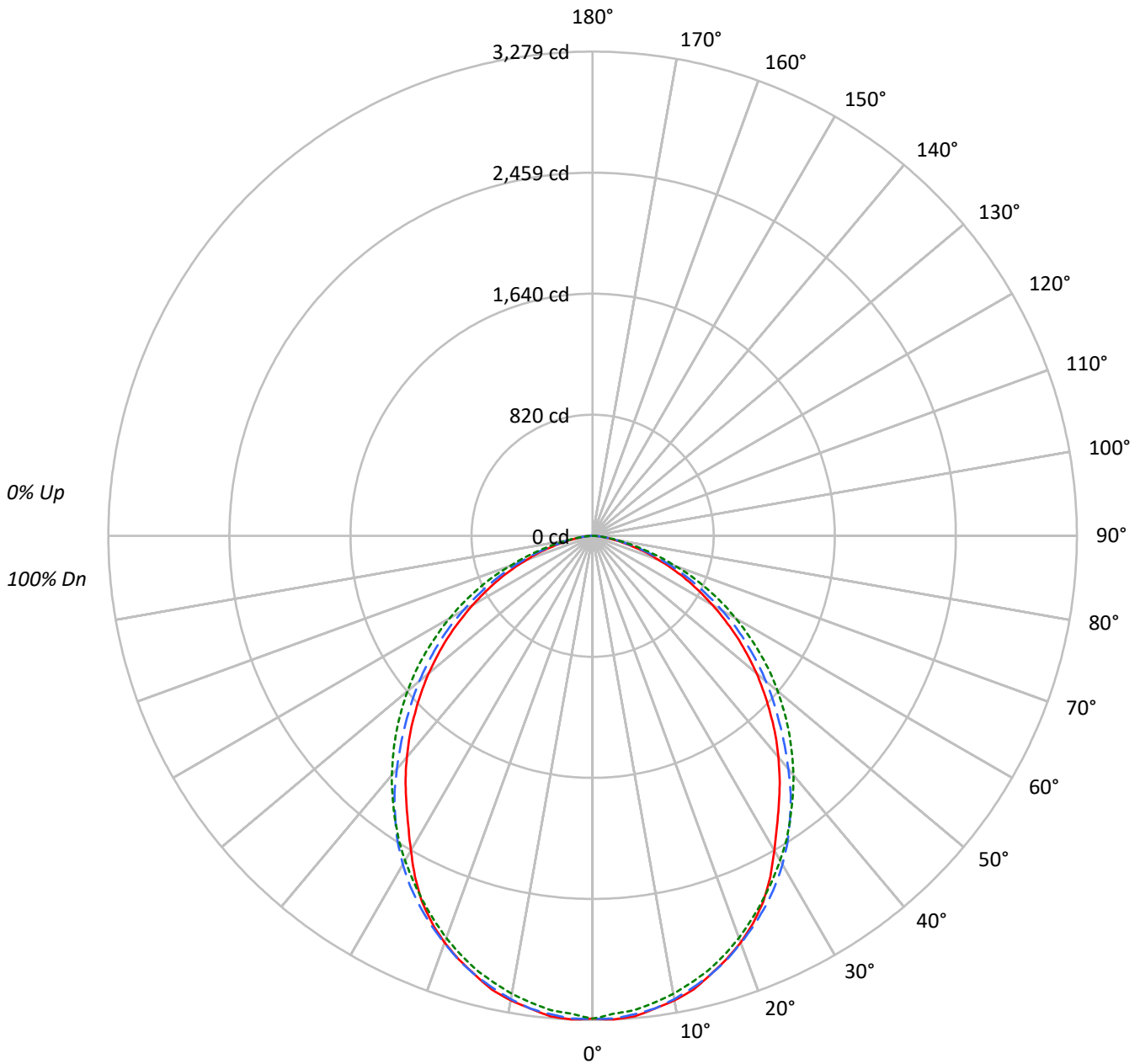
Lumens per Lamp: N/A
Luminaire Lumens: 7562.0 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					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	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°	8801	8801	8801
5°	8824	8787	8712
10°	8730	8706	8607
15°	8575	8575	8478
20°	8394	8405	8297
25°	8117	8218	8087
30°	7644	7988	7890
35°	7223	7656	7669
40°	6872	7242	7432
45°	6479	6804	7153
50°	6064	6412	6848
55°	5594	5965	6478
60°	5038	5443	6025
65°	4448	4840	5480
70°	3707	4122	4656
75°	2913	3292	3644
80°	2083	2317	2569
85°	1359	1359	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.9	4.1
10°-20°	865.0	11.4
20°-30°	1264.1	16.7
30°-40°	1434.9	19.0
40°-50°	1385.1	18.3
50°-60°	1142.6	15.1
60°-70°	760.9	10.1
70°-80°	340.5	4.5
80°-90°	60.9	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°	2437.0	32.2
0°-40°	3871.9	51.2
0°-60°	6399.7	84.6
0°-90°	7562.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7562.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3270	3270	3270	3270	3270	
5°	3267	3265	3253	3235	3225	309
15°	3078	3086	3078	3064	3043	868
25°	2734	2755	2768	2748	2724	1252
35°	2199	2229	2331	2343	2334	1378
45°	1702	1731	1788	1870	1880	1314
55°	1192	1212	1272	1342	1381	1064
65°	698	717	760	814	861	693
75°	280	295	317	332	350	306
85°	44	44	44	42	42	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3270.4	3270.4	3270.4	3270.4	3270.4
2.5°	3279.2	3280.4	3272.9	3252.8	3240.2
5°	3266.6	3265.3	3252.8	3235.2	3225.1
7.5°	3230.2	3232.7	3228.9	3203.8	3190.0
10°	3195.0	3196.2	3186.2	3166.1	3149.8
12.5°	3149.8	3148.5	3134.7	3124.6	3098.2
15°	3078.1	3085.7	3078.1	3064.3	3043.0
17.5°	3009.0	3009.0	3014.1	2990.2	2973.9
20°	2931.1	2934.9	2934.9	2916.1	2897.2
22.5°	2840.7	2852.0	2855.8	2835.7	2813.0
25°	2733.9	2755.3	2767.8	2747.7	2723.8
27.5°	2604.5	2637.2	2674.8	2659.8	2633.4
30°	2460.0	2507.7	2570.6	2558.0	2539.2
32.5°	2323.1	2370.8	2457.5	2452.5	2442.4
35°	2198.7	2228.8	2330.6	2343.2	2334.4
37.5°	2080.6	2108.2	2203.7	2232.6	2225.1
40°	1956.2	1986.3	2061.7	2113.2	2115.8
42.5°	1833.1	1862.0	1923.5	1997.7	1997.7
45°	1702.4	1731.3	1787.8	1869.5	1879.6
47.5°	1574.3	1604.4	1659.7	1741.3	1757.7
50°	1448.6	1476.3	1531.5	1610.7	1635.8
52.5°	1317.9	1348.1	1402.1	1475.0	1511.4
55°	1192.3	1212.4	1271.5	1341.8	1380.8
57.5°	1061.6	1080.5	1147.1	1207.4	1247.6
60°	936.0	959.9	1011.4	1073.0	1119.4
62.5°	815.4	840.5	884.5	938.5	991.3
65°	698.5	717.4	760.1	814.1	860.6
67.5°	585.5	601.8	644.5	682.2	731.2
70°	471.1	492.5	523.9	560.3	591.8
72.5°	379.4	388.2	414.6	441.0	473.7
75°	280.2	295.3	316.6	331.7	350.5
77.5°	201.0	209.8	222.4	234.9	252.5
80°	134.4	138.2	149.5	152.0	165.8
82.5°	81.7	84.2	86.7	87.9	93.0
85°	44.0	44.0	44.0	41.5	41.5
87.5°	25.1	25.1	21.4	17.6	12.6
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)