

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: P556973

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-93-96-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: P556973
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-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

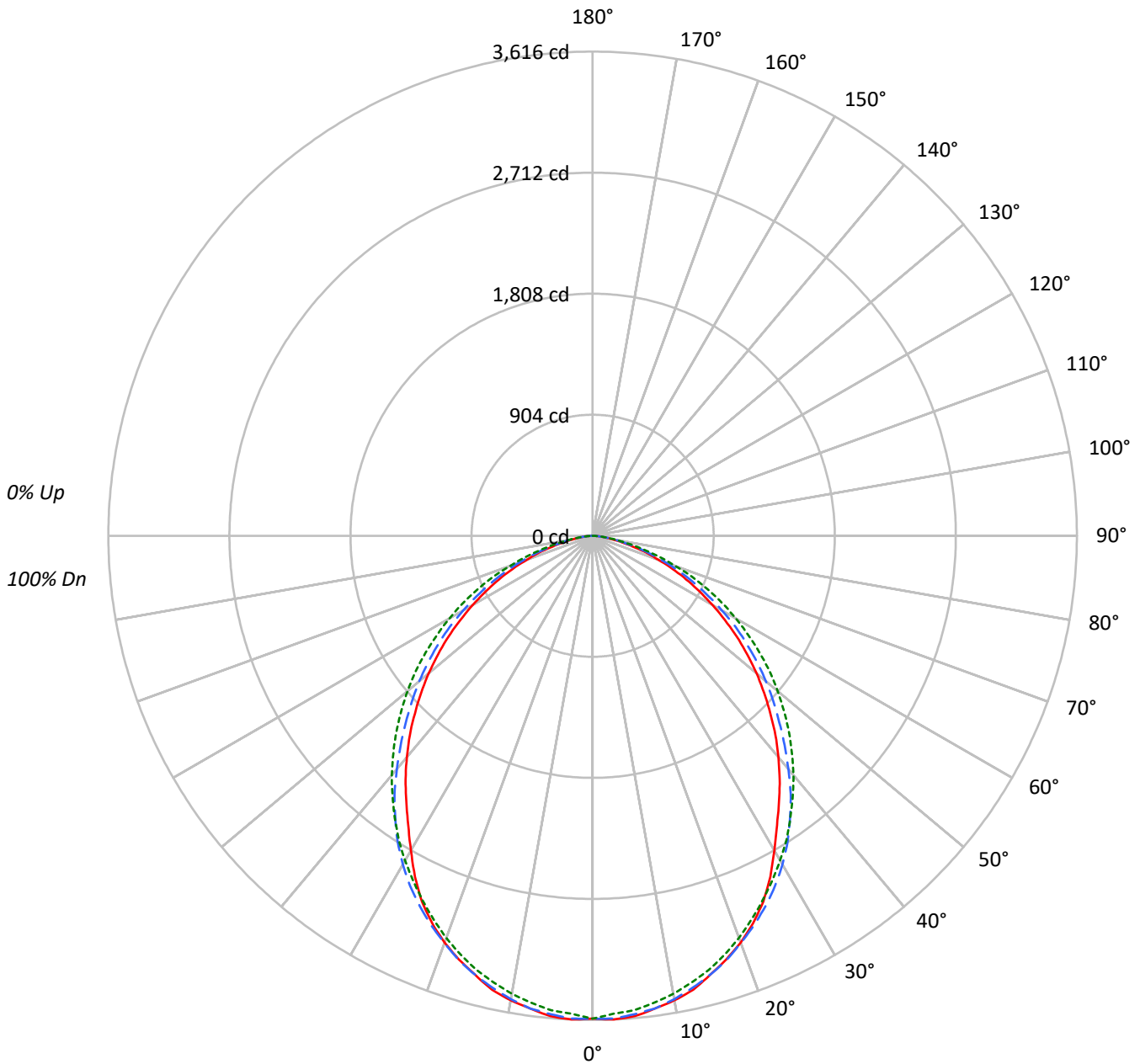
Lumens per Lamp: N/A
Luminaire Lumens: 8339.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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				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°	9705	9705	9705
5°	9730	9689	9607
10°	9627	9601	9491
15°	9456	9456	9348
20°	9256	9268	9149
25°	8951	9062	8918
30°	8429	8808	8701
35°	7965	8443	8456
40°	7578	7987	8196
45°	7144	7503	7888
50°	6688	7070	7552
55°	6168	6578	7143
60°	5555	6002	6644
65°	4905	5337	6043
70°	4088	4545	5135
75°	3213	3630	4018
80°	2297	2555	2834
85°	1497	1497	1411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.6	4.1
10°-20°	953.9	11.4
20°-30°	1394.0	16.7
30°-40°	1582.3	19.0
40°-50°	1527.5	18.3
50°-60°	1260.1	15.1
60°-70°	839.1	10.1
70°-80°	375.5	4.5
80°-90°	67.2	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°	2687.4	32.2
0°-40°	4269.7	51.2
0°-60°	7057.2	84.6
0°-90°	8339.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3606	3606	3606	3606	3606	
5°	3602	3601	3587	3568	3556	341
15°	3394	3403	3394	3379	3356	957
25°	3015	3038	3052	3030	3004	1381
35°	2425	2458	2570	2584	2574	1519
45°	1877	1909	1972	2062	2073	1448
55°	1315	1337	1402	1480	1523	1174
65°	770	791	838	898	949	764
75°	309	326	349	366	386	338
85°	48	48	48	46	46	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3606.4	3606.4	3606.4	3606.4	3606.4
2.5°	3616.1	3617.5	3609.2	3587.0	3573.2
5°	3602.2	3600.9	3587.0	3567.6	3556.5
7.5°	3562.1	3564.8	3560.7	3533.0	3517.7
10°	3523.3	3524.7	3513.6	3491.4	3473.4
12.5°	3473.4	3472.0	3456.8	3445.7	3416.6
15°	3394.4	3402.7	3394.4	3379.2	3355.6
17.5°	3318.2	3318.2	3323.8	3297.4	3279.4
20°	3232.3	3236.5	3236.5	3215.7	3194.9
22.5°	3132.6	3145.0	3149.2	3127.0	3102.1
25°	3014.8	3038.4	3052.2	3030.0	3003.7
27.5°	2872.1	2908.1	2949.7	2933.1	2904.0
30°	2712.8	2765.4	2834.7	2820.8	2800.1
32.5°	2561.8	2614.4	2710.0	2704.5	2693.4
35°	2424.6	2457.8	2570.1	2583.9	2574.2
37.5°	2294.4	2324.8	2430.1	2462.0	2453.7
40°	2157.2	2190.4	2273.6	2330.4	2333.1
42.5°	2021.4	2053.3	2121.2	2202.9	2202.9
45°	1877.3	1909.2	1971.5	2061.6	2072.7
47.5°	1736.0	1769.3	1830.2	1920.3	1938.3
50°	1597.5	1627.9	1688.9	1776.2	1803.9
52.5°	1453.4	1486.6	1546.2	1626.6	1666.7
55°	1314.8	1337.0	1402.1	1479.7	1522.6
57.5°	1170.7	1191.5	1264.9	1331.4	1375.8
60°	1032.2	1058.5	1115.3	1183.2	1234.5
62.5°	899.2	926.9	975.4	1035.0	1093.1
65°	770.3	791.1	838.2	897.8	949.1
67.5°	645.6	663.6	710.8	752.3	806.3
70°	519.6	543.1	577.7	617.9	652.6
72.5°	418.4	428.1	457.2	486.3	522.3
75°	309.0	325.6	349.1	365.8	386.5
77.5°	221.7	231.4	245.2	259.1	278.5
80°	148.2	152.4	164.9	167.6	182.9
82.5°	90.1	92.8	95.6	97.0	102.5
85°	48.5	48.5	48.5	45.7	45.7
87.5°	27.7	27.7	23.6	19.4	13.9
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)