

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: P557039

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-97-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: P557039
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-35-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

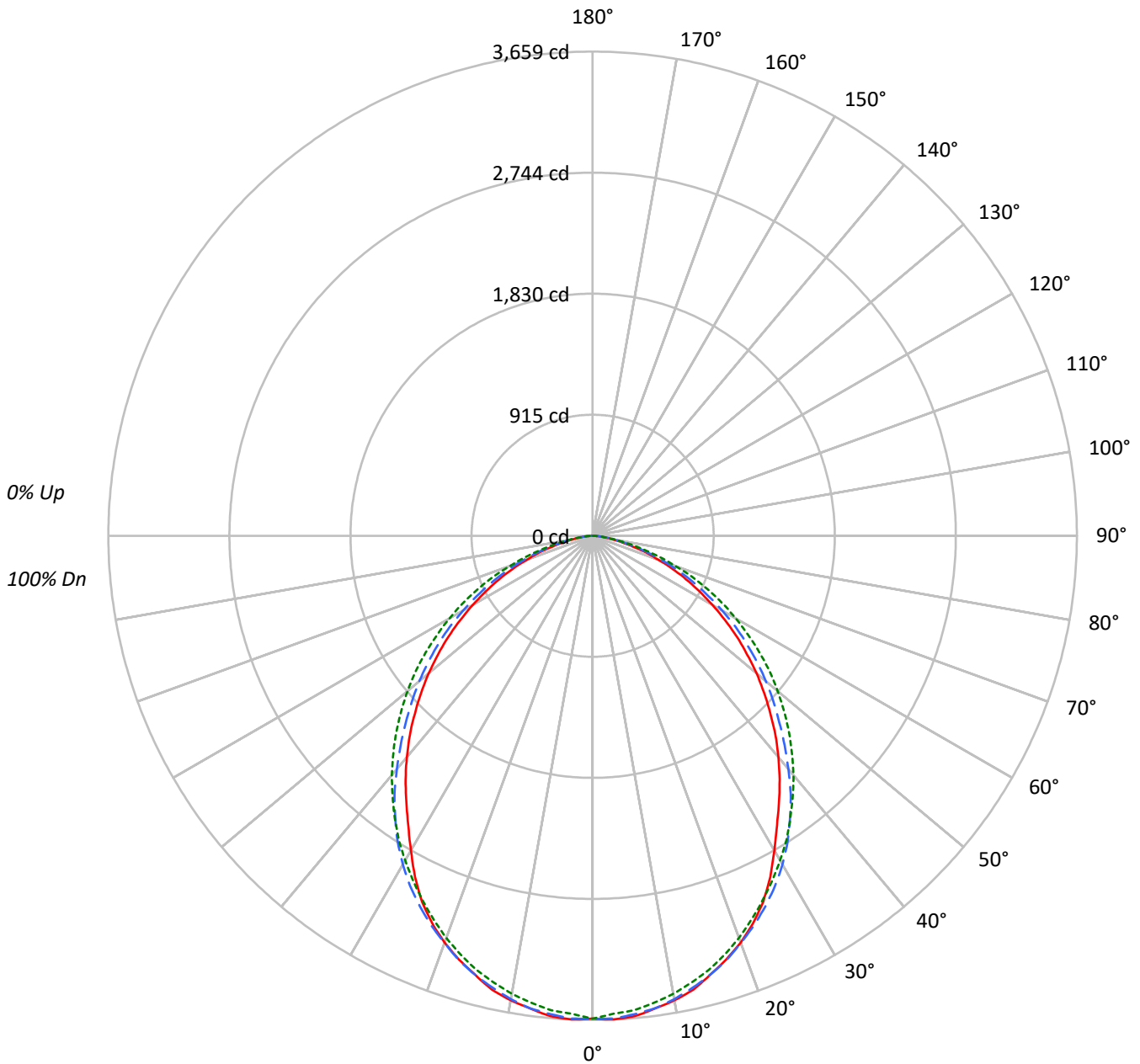
Lumens per Lamp: N/A
Luminaire Lumens: 8438.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	9820	9820	9820
5°	9846	9804	9721
10°	9742	9715	9604
15°	9569	9569	9460
20°	9366	9378	9258
25°	9058	9170	9024
30°	8529	8913	8804
35°	8060	8543	8557
40°	7668	8082	8293
45°	7229	7592	7982
50°	6767	7154	7641
55°	6242	6656	7228
60°	5621	6074	6723
65°	4963	5401	6115
70°	4136	4600	5195
75°	3250	3673	4066
80°	2325	2585	2868
85°	1516	1516	1430



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.6	4.1
10°-20°	965.2	11.4
20°-30°	1410.5	16.7
30°-40°	1601.1	19.0
40°-50°	1545.6	18.3
50°-60°	1275.0	15.1
60°-70°	849.1	10.1
70°-80°	379.9	4.5
80°-90°	68.0	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°	2719.3	32.2
0°-40°	4320.4	51.2
0°-60°	7141.0	84.6
0°-90°	8438.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8438.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3649	3649	3649	3649	3649	
5°	3645	3644	3630	3610	3599	345
15°	3435	3443	3435	3419	3396	968
25°	3051	3074	3088	3066	3039	1397
35°	2453	2487	2601	2615	2605	1537
45°	1900	1932	1995	2086	2097	1466
55°	1330	1353	1419	1497	1541	1187
65°	780	800	848	908	960	773
75°	313	330	353	370	391	342
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3649.2	3649.2	3649.2	3649.2	3649.2
2.5°	3659.0	3660.4	3652.0	3629.6	3615.6
5°	3645.0	3643.6	3629.6	3610.0	3598.7
7.5°	3604.4	3607.2	3603.0	3574.9	3559.5
10°	3565.1	3566.5	3555.3	3532.9	3514.6
12.5°	3514.6	3513.2	3497.8	3486.6	3457.2
15°	3434.7	3443.1	3434.7	3419.3	3395.5
17.5°	3357.6	3357.6	3363.2	3336.6	3318.4
20°	3270.7	3274.9	3274.9	3253.9	3232.8
22.5°	3169.8	3182.4	3186.6	3164.2	3138.9
25°	3050.6	3074.4	3088.4	3066.0	3039.4
27.5°	2906.2	2942.6	2984.7	2967.9	2938.4
30°	2745.0	2798.2	2868.3	2854.3	2833.3
32.5°	2592.2	2645.4	2742.2	2736.6	2725.3
35°	2453.4	2487.0	2600.6	2614.6	2604.8
37.5°	2321.6	2352.4	2459.0	2491.2	2482.8
40°	2182.8	2216.4	2300.6	2358.0	2360.8
42.5°	2045.4	2077.7	2146.4	2229.1	2229.1
45°	1899.6	1931.9	1994.9	2086.1	2097.3
47.5°	1756.6	1790.3	1851.9	1943.1	1961.3
50°	1616.4	1647.3	1708.9	1797.3	1825.3
52.5°	1470.6	1504.3	1564.6	1645.9	1686.5
55°	1330.4	1352.9	1418.8	1497.3	1540.7
57.5°	1184.6	1205.7	1280.0	1347.3	1392.1
60°	1044.4	1071.1	1128.6	1197.2	1249.1
62.5°	909.9	937.9	987.0	1047.2	1106.1
65°	779.5	800.5	848.2	908.4	960.3
67.5°	653.3	671.5	719.2	761.2	815.9
70°	525.7	549.6	584.6	625.3	660.3
72.5°	423.4	433.2	462.6	492.1	528.5
75°	312.6	329.5	353.3	370.1	391.1
77.5°	224.3	234.1	248.1	262.2	281.8
80°	150.0	154.2	166.8	169.6	185.1
82.5°	91.1	93.9	96.7	98.1	103.7
85°	49.1	49.1	49.1	46.3	46.3
87.5°	28.0	28.0	23.8	19.6	14.0
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)