

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: P558192

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-80-84-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: P558192
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-80-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

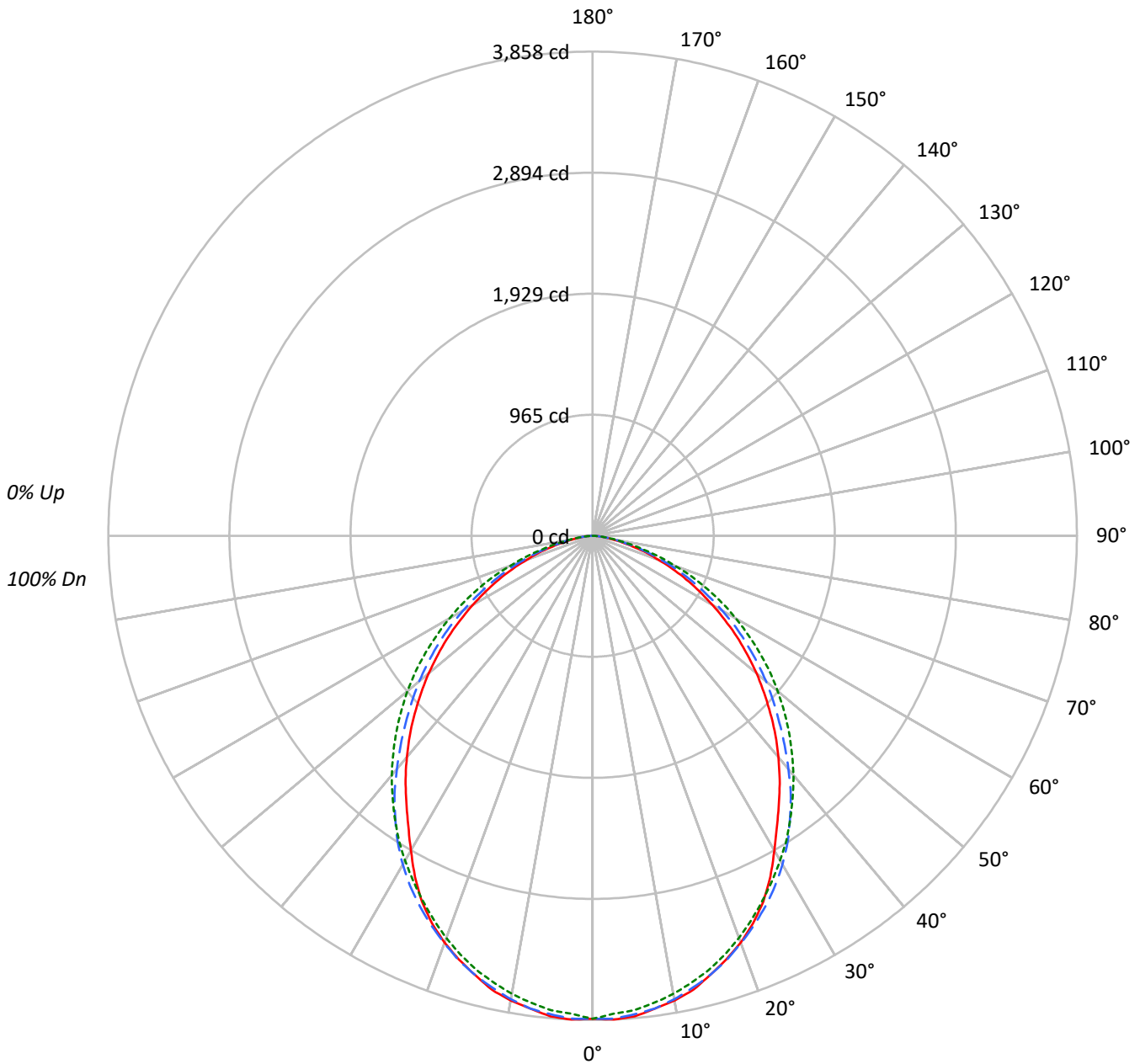
Lumens per Lamp: N/A
Luminaire Lumens: 8898.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	10355	10355	10355
5°	10383	10339	10251
10°	10273	10244	10127
15°	10091	10091	9975
20°	9877	9889	9763
25°	9552	9670	9516
30°	8994	9399	9284
35°	8499	9009	9023
40°	8086	8522	8745
45°	7623	8006	8417
50°	7136	7544	8058
55°	6582	7019	7622
60°	5928	6405	7089
65°	5234	5695	6448
70°	4362	4851	5478
75°	3428	3873	4289
80°	2452	2726	3023
85°	1596	1596	1507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.3	4.1
10°-20°	1017.8	11.4
20°-30°	1487.4	16.7
30°-40°	1688.4	19.0
40°-50°	1629.9	18.3
50°-60°	1344.5	15.1
60°-70°	895.3	10.1
70°-80°	400.7	4.5
80°-90°	71.7	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°	2867.6	32.2
0°-40°	4555.9	51.2
0°-60°	7530.3	84.6
0°-90°	8898.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8898.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3848	3848	3848	3848	3848	
5°	3844	3842	3828	3807	3795	364
15°	3622	3631	3622	3606	3581	1021
25°	3217	3242	3257	3233	3205	1473
35°	2587	2623	2742	2757	2747	1621
45°	2003	2037	2104	2200	2212	1546
55°	1403	1427	1496	1579	1625	1252
65°	822	844	894	958	1013	815
75°	330	347	372	390	412	360
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3848.2	3848.2	3848.2	3848.2	3848.2
2.5°	3858.5	3860.0	3851.1	3827.5	3812.7
5°	3843.7	3842.2	3827.5	3806.8	3794.9
7.5°	3800.8	3803.8	3799.4	3769.8	3753.5
10°	3759.5	3760.9	3749.1	3725.5	3706.2
12.5°	3706.2	3704.8	3688.5	3676.7	3645.6
15°	3622.0	3630.8	3622.0	3605.7	3580.6
17.5°	3540.7	3540.7	3546.6	3518.5	3499.3
20°	3449.0	3453.4	3453.4	3431.3	3409.1
22.5°	3342.6	3355.9	3360.3	3336.6	3310.0
25°	3216.9	3242.0	3256.8	3233.2	3205.1
27.5°	3064.6	3103.1	3147.4	3129.7	3098.6
30°	2894.6	2950.8	3024.7	3009.9	2987.8
32.5°	2733.5	2789.7	2891.7	2885.7	2873.9
35°	2587.1	2622.6	2742.3	2757.1	2746.8
37.5°	2448.2	2480.7	2593.0	2627.0	2618.2
40°	2301.8	2337.3	2426.0	2486.6	2489.5
42.5°	2156.9	2190.9	2263.4	2350.6	2350.6
45°	2003.2	2037.2	2103.7	2199.8	2211.6
47.5°	1852.4	1887.9	1952.9	2049.0	2068.2
50°	1704.5	1737.1	1802.1	1895.2	1924.8
52.5°	1550.8	1586.3	1649.8	1735.6	1778.5
55°	1403.0	1426.6	1496.1	1578.9	1624.7
57.5°	1249.2	1271.4	1349.7	1420.7	1468.0
60°	1101.4	1129.5	1190.1	1262.5	1317.2
62.5°	959.5	989.0	1040.8	1104.3	1166.4
65°	822.0	844.1	894.4	958.0	1012.7
67.5°	688.9	708.1	758.4	802.7	860.4
70°	554.4	579.5	616.5	659.3	696.3
72.5°	446.5	456.8	487.9	518.9	557.3
75°	329.7	347.4	372.5	390.3	412.5
77.5°	236.5	246.9	261.7	276.5	297.1
80°	158.2	162.6	175.9	178.9	195.1
82.5°	96.1	99.0	102.0	103.5	109.4
85°	51.7	51.7	51.7	48.8	48.8
87.5°	29.6	29.6	25.1	20.7	14.8
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)