

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: P558314

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-93-94-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: P558314
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-35-UNV-93-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

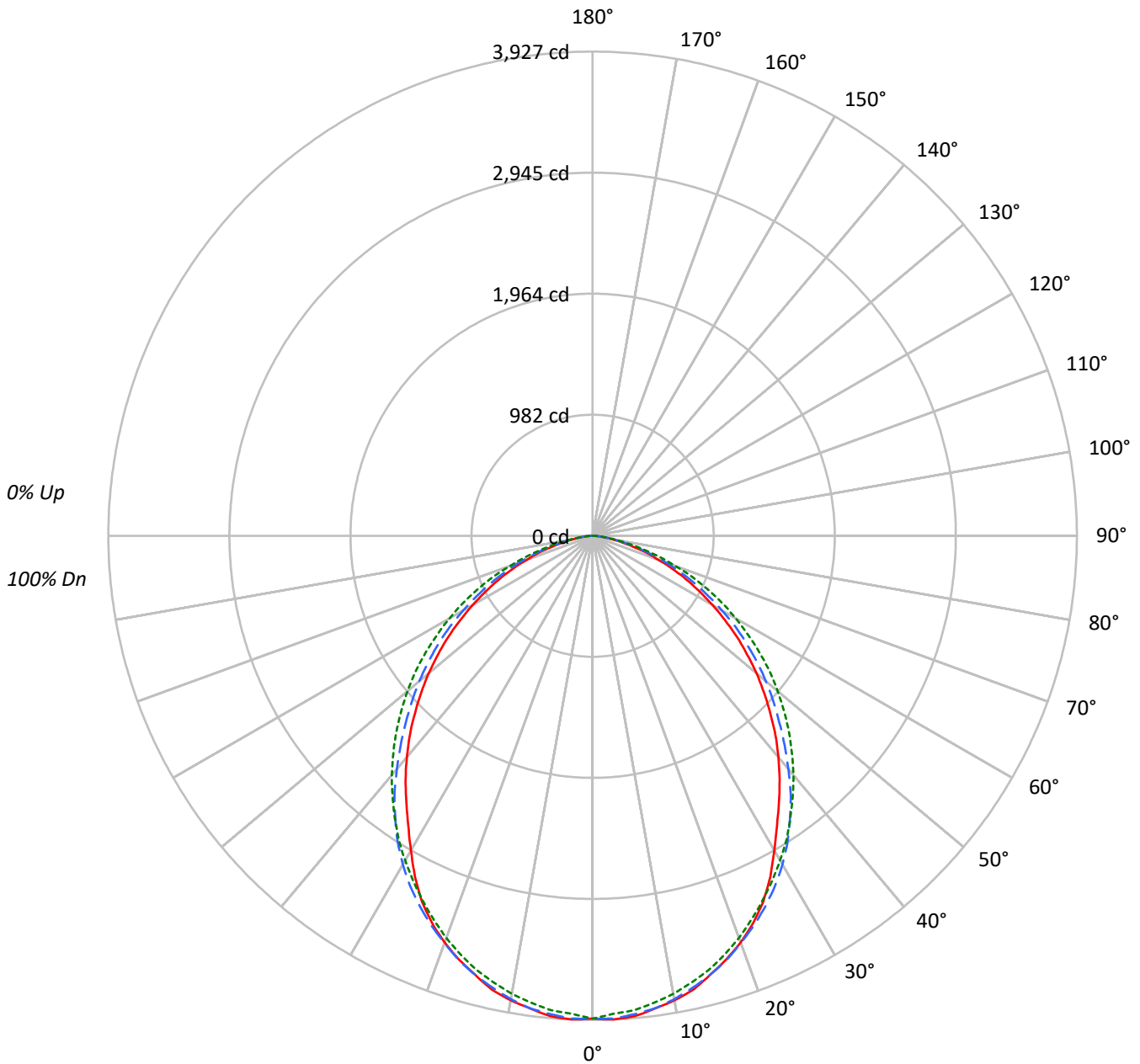
Lumens per Lamp: N/A
Luminaire Lumens: 9056.0 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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°	10539	10539	10539
5°	10567	10522	10433
10°	10455	10426	10307
15°	10270	10270	10152
20°	10052	10065	9936
25°	9721	9842	9685
30°	9154	9565	9449
35°	8650	9169	9184
40°	8229	8674	8901
45°	7759	8148	8566
50°	7263	7678	8201
55°	6699	7144	7758
60°	6033	6519	7215
65°	5327	5796	6563
70°	4439	4936	5576
75°	3488	3943	4365
80°	2495	2774	3078
85°	1627	1627	1535



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	368.7	4.1
10°-20°	1035.9	11.4
20°-30°	1513.8	16.7
30°-40°	1718.4	19.0
40°-50°	1658.8	18.3
50°-60°	1368.4	15.1
60°-70°	911.2	10.1
70°-80°	407.8	4.5
80°-90°	73.0	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°	2918.5	32.2
0°-40°	4636.8	51.2
0°-60°	7664.0	84.6
0°-90°	9056.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9056.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3916	3916	3916	3916	3916	
5°	3912	3910	3895	3874	3862	370
15°	3686	3695	3686	3670	3644	1039
25°	3274	3300	3315	3291	3262	1499
35°	2633	2669	2791	2806	2796	1650
45°	2039	2073	2141	2239	2251	1573
55°	1428	1452	1523	1607	1654	1274
65°	837	859	910	975	1031	829
75°	336	354	379	397	420	367
85°	53	53	53	50	50	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3916.5	3916.5	3916.5	3916.5	3916.5
2.5°	3927.0	3928.5	3919.5	3895.4	3880.4
5°	3912.0	3910.5	3895.4	3874.4	3862.3
7.5°	3868.3	3871.3	3866.8	3836.7	3820.2
10°	3826.2	3827.7	3815.7	3791.6	3772.0
12.5°	3772.0	3770.5	3754.0	3742.0	3710.4
15°	3686.3	3695.3	3686.3	3669.7	3644.2
17.5°	3603.5	3603.5	3609.5	3581.0	3561.4
20°	3510.2	3514.8	3514.8	3492.2	3469.6
22.5°	3401.9	3415.5	3420.0	3395.9	3368.8
25°	3274.0	3299.6	3314.6	3290.6	3262.0
27.5°	3119.0	3158.2	3203.3	3185.2	3153.7
30°	2946.0	3003.2	3078.4	3063.4	3040.8
32.5°	2782.0	2839.2	2943.0	2937.0	2925.0
35°	2633.1	2669.2	2791.0	2806.1	2795.6
37.5°	2491.6	2524.7	2639.1	2673.7	2664.7
40°	2342.7	2378.8	2469.1	2530.7	2533.8
42.5°	2195.2	2229.8	2303.5	2392.3	2392.3
45°	2038.7	2073.3	2141.1	2238.9	2250.9
47.5°	1885.3	1921.4	1987.6	2085.4	2104.9
50°	1734.8	1767.9	1834.1	1928.9	1959.0
52.5°	1578.3	1614.4	1679.1	1766.4	1810.0
55°	1427.9	1451.9	1522.7	1606.9	1653.6
57.5°	1271.4	1294.0	1373.7	1445.9	1494.1
60°	1120.9	1149.5	1211.2	1284.9	1340.6
62.5°	976.5	1006.6	1059.2	1123.9	1187.1
65°	836.6	859.1	910.3	975.0	1030.7
67.5°	701.1	720.7	771.9	817.0	875.7
70°	564.2	589.8	627.4	671.1	708.7
72.5°	454.4	464.9	496.5	528.1	567.2
75°	335.5	353.6	379.2	397.2	419.8
77.5°	240.7	251.3	266.3	281.4	302.4
80°	161.0	165.5	179.0	182.1	198.6
82.5°	97.8	100.8	103.8	105.3	111.3
85°	52.7	52.7	52.7	49.7	49.7
87.5°	30.1	30.1	25.6	21.1	15.0
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)