

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: P558250

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-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: P558250
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-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

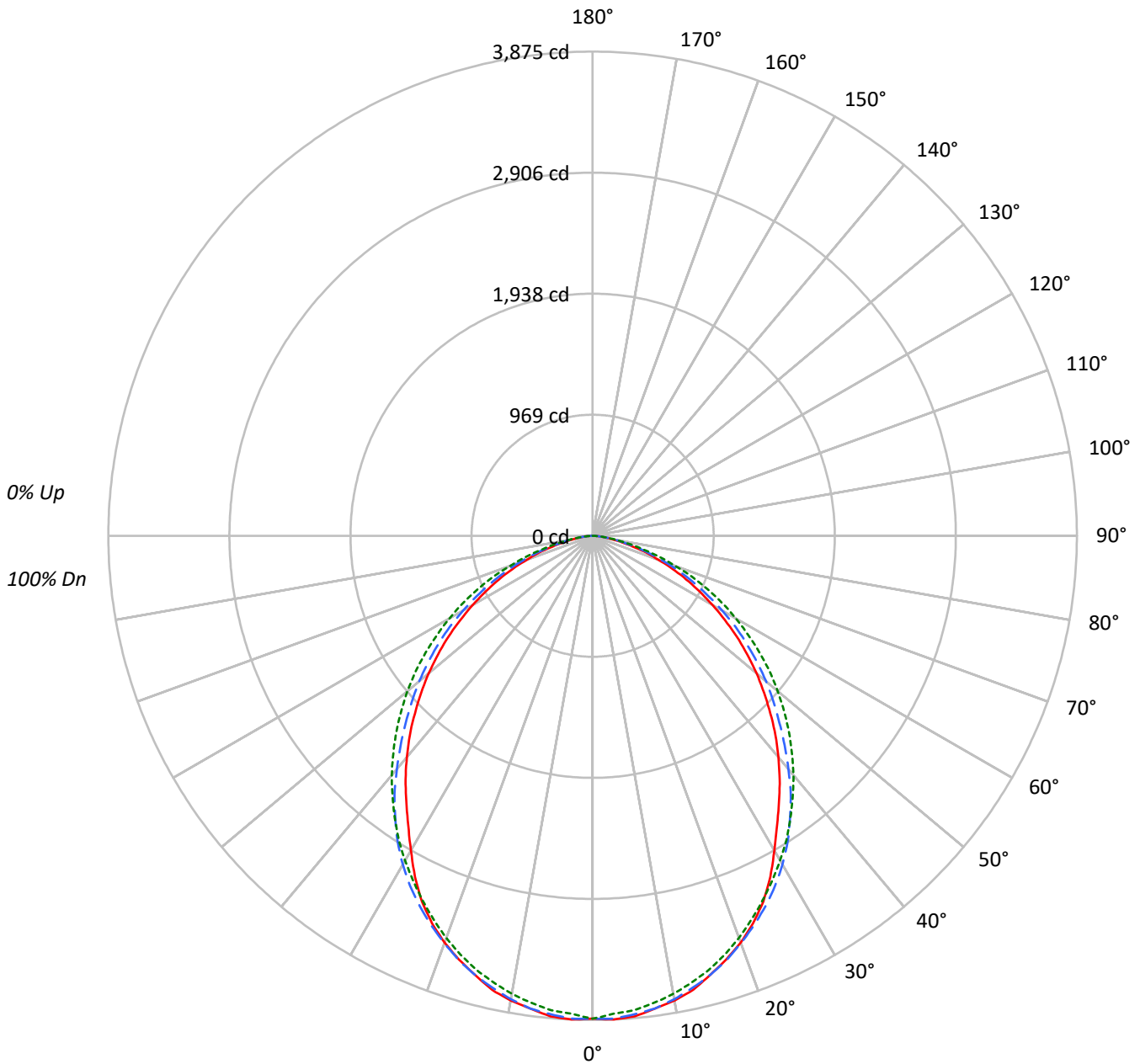
Lumens per Lamp: N/A
Luminaire Lumens: 8937.0 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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°	10401	10401	10401
5°	10428	10384	10296
10°	10318	10289	10172
15°	10135	10135	10019
20°	9920	9933	9805
25°	9593	9712	9558
30°	9034	9440	9324
35°	8536	9048	9063
40°	8121	8559	8784
45°	7657	8041	8453
50°	7167	7577	8094
55°	6611	7050	7656
60°	5954	6433	7120
65°	5257	5720	6476
70°	4381	4872	5503
75°	3442	3891	4308
80°	2462	2738	3037
85°	1606	1606	1513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.9	4.1
10°-20°	1022.3	11.4
20°-30°	1493.9	16.7
30°-40°	1695.8	19.0
40°-50°	1637.0	18.3
50°-60°	1350.4	15.1
60°-70°	899.3	10.1
70°-80°	402.4	4.5
80°-90°	72.0	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°	2880.1	32.2
0°-40°	4575.9	51.2
0°-60°	7563.3	84.6
0°-90°	8937.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8937.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3865	3865	3865	3865	3865	
5°	3861	3859	3844	3823	3812	365
15°	3638	3647	3638	3622	3596	1026
25°	3231	3256	3271	3247	3219	1480
35°	2598	2634	2754	2769	2759	1628
45°	2012	2046	2113	2209	2221	1552
55°	1409	1433	1503	1586	1632	1258
65°	826	848	898	962	1017	819
75°	331	349	374	392	414	362
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°	3865.0	3865.0	3865.0	3865.0	3865.0
2.5°	3875.4	3876.9	3868.0	3844.2	3829.4
5°	3860.6	3859.1	3844.2	3823.4	3811.6
7.5°	3817.5	3820.5	3816.0	3786.3	3770.0
10°	3775.9	3777.4	3765.5	3741.8	3722.5
12.5°	3722.5	3721.0	3704.7	3692.8	3661.6
15°	3637.8	3646.8	3637.8	3621.5	3596.3
17.5°	3556.2	3556.2	3562.1	3533.9	3514.6
20°	3464.1	3468.6	3468.6	3446.3	3424.0
22.5°	3357.2	3370.6	3375.0	3351.3	3324.5
25°	3231.0	3256.2	3271.1	3247.3	3219.1
27.5°	3078.1	3116.7	3161.2	3143.4	3112.2
30°	2907.3	2963.7	3038.0	3023.1	3000.8
32.5°	2745.5	2801.9	2904.3	2898.4	2886.5
35°	2598.5	2634.1	2754.4	2769.2	2758.8
37.5°	2458.9	2491.6	2604.4	2638.5	2629.6
40°	2311.9	2347.5	2436.6	2497.5	2500.5
42.5°	2166.4	2200.5	2273.3	2360.9	2360.9
45°	2011.9	2046.1	2112.9	2209.4	2221.3
47.5°	1860.5	1896.1	1961.5	2058.0	2077.3
50°	1712.0	1744.7	1810.0	1903.6	1933.3
52.5°	1557.6	1593.2	1657.1	1743.2	1786.3
55°	1409.1	1432.9	1502.7	1585.8	1631.8
57.5°	1254.7	1277.0	1355.7	1426.9	1474.4
60°	1106.2	1134.4	1195.3	1268.0	1323.0
62.5°	963.7	993.4	1045.3	1109.2	1171.5
65°	825.6	847.8	898.3	962.2	1017.1
67.5°	691.9	711.2	761.7	806.3	864.2
70°	556.8	582.1	619.2	662.2	699.4
72.5°	448.4	458.8	490.0	521.2	559.8
75°	331.1	348.9	374.2	392.0	414.3
77.5°	237.6	248.0	262.8	277.7	298.5
80°	158.9	163.3	176.7	179.7	196.0
82.5°	96.5	99.5	102.5	103.9	109.9
85°	52.0	52.0	52.0	49.0	49.0
87.5°	29.7	29.7	25.2	20.8	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)