

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: P558361

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-88-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: P558361
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-40-UNV-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

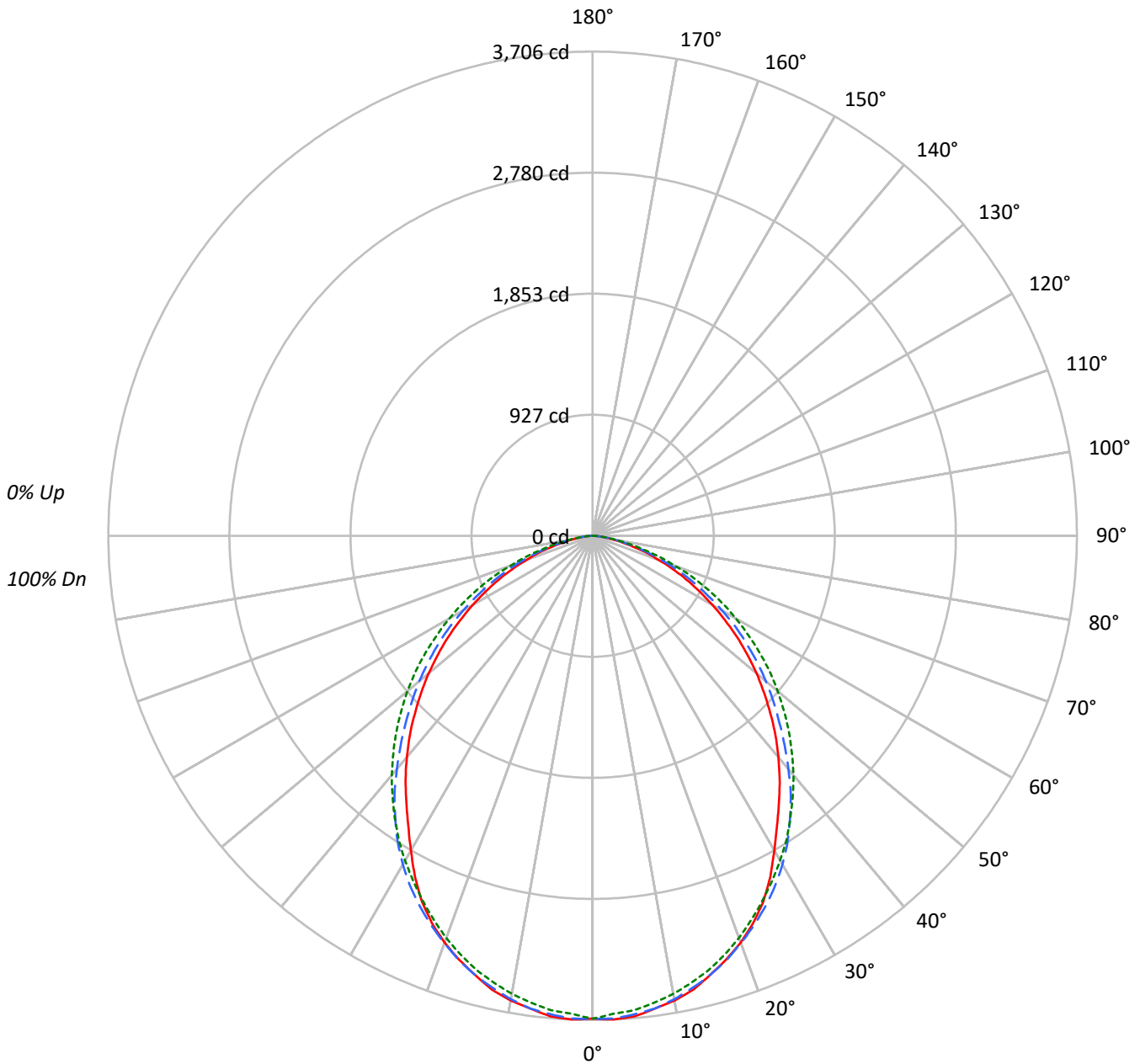
Lumens per Lamp: N/A
Luminaire Lumens: 8547.0 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	9947	9947	9947
5°	9973	9931	9847
10°	9868	9840	9728
15°	9692	9692	9582
20°	9487	9499	9377
25°	9175	9288	9141
30°	8639	9028	8918
35°	8164	8654	8667
40°	7767	8186	8400
45°	7323	7690	8085
50°	6854	7247	7740
55°	6322	6742	7322
60°	5694	6152	6810
65°	5027	5470	6194
70°	4190	4659	5262
75°	3293	3720	4119
80°	2354	2619	2904
85°	1535	1535	1448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.0	4.1
10°-20°	977.7	11.4
20°-30°	1428.7	16.7
30°-40°	1621.8	19.0
40°-50°	1565.6	18.3
50°-60°	1291.5	15.1
60°-70°	860.0	10.1
70°-80°	384.8	4.5
80°-90°	68.8	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°	2754.4	32.2
0°-40°	4376.2	51.2
0°-60°	7233.3	84.6
0°-90°	8547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8547.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3696	3696	3696	3696	3696	
5°	3692	3691	3676	3657	3645	349
15°	3479	3488	3479	3464	3439	981
25°	3090	3114	3128	3106	3079	1415
35°	2485	2519	2634	2648	2638	1557
45°	1924	1957	2021	2113	2124	1485
55°	1348	1370	1437	1517	1561	1203
65°	790	811	859	920	973	783
75°	317	334	358	375	396	346
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3696.4	3696.4	3696.4	3696.4	3696.4
2.5°	3706.3	3707.7	3699.2	3676.5	3662.3
5°	3692.1	3690.7	3676.5	3656.6	3645.2
7.5°	3650.9	3653.8	3649.5	3621.1	3605.5
10°	3611.2	3612.6	3601.2	3578.5	3560.0
12.5°	3560.0	3558.6	3543.0	3531.6	3501.8
15°	3479.1	3487.6	3479.1	3463.5	3439.3
17.5°	3401.0	3401.0	3406.7	3379.7	3361.2
20°	3312.9	3317.2	3317.2	3295.9	3274.6
22.5°	3210.7	3223.5	3227.7	3205.0	3179.5
25°	3090.0	3114.1	3128.3	3105.6	3078.6
27.5°	2943.7	2980.7	3023.3	3006.2	2976.4
30°	2780.4	2834.4	2905.4	2891.2	2869.9
32.5°	2625.6	2679.6	2777.6	2771.9	2760.6
35°	2485.1	2519.1	2634.2	2648.4	2638.4
37.5°	2351.6	2382.8	2490.7	2523.4	2514.9
40°	2211.0	2245.1	2330.3	2388.5	2391.3
42.5°	2071.8	2104.5	2174.1	2257.9	2257.9
45°	1924.2	1956.8	2020.7	2113.0	2124.4
47.5°	1779.3	1813.4	1875.9	1968.2	1986.6
50°	1637.3	1668.5	1731.0	1820.5	1848.9
52.5°	1489.6	1523.7	1584.8	1667.1	1708.3
55°	1347.6	1370.3	1437.1	1516.6	1560.6
57.5°	1199.9	1221.2	1296.5	1364.7	1410.1
60°	1057.9	1084.9	1143.1	1212.7	1265.3
62.5°	921.6	950.0	999.7	1060.8	1120.4
65°	789.5	810.8	859.1	920.2	972.7
67.5°	661.7	680.2	728.5	771.1	826.5
70°	532.5	556.7	592.2	633.3	668.8
72.5°	428.9	438.8	468.6	498.4	535.4
75°	316.7	333.7	357.8	374.9	396.2
77.5°	227.2	237.1	251.3	265.5	285.4
80°	151.9	156.2	169.0	171.8	187.4
82.5°	92.3	95.1	98.0	99.4	105.1
85°	49.7	49.7	49.7	46.9	46.9
87.5°	28.4	28.4	24.1	19.9	14.2
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)