

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: P558444

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-93-96-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: P558444
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-50-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

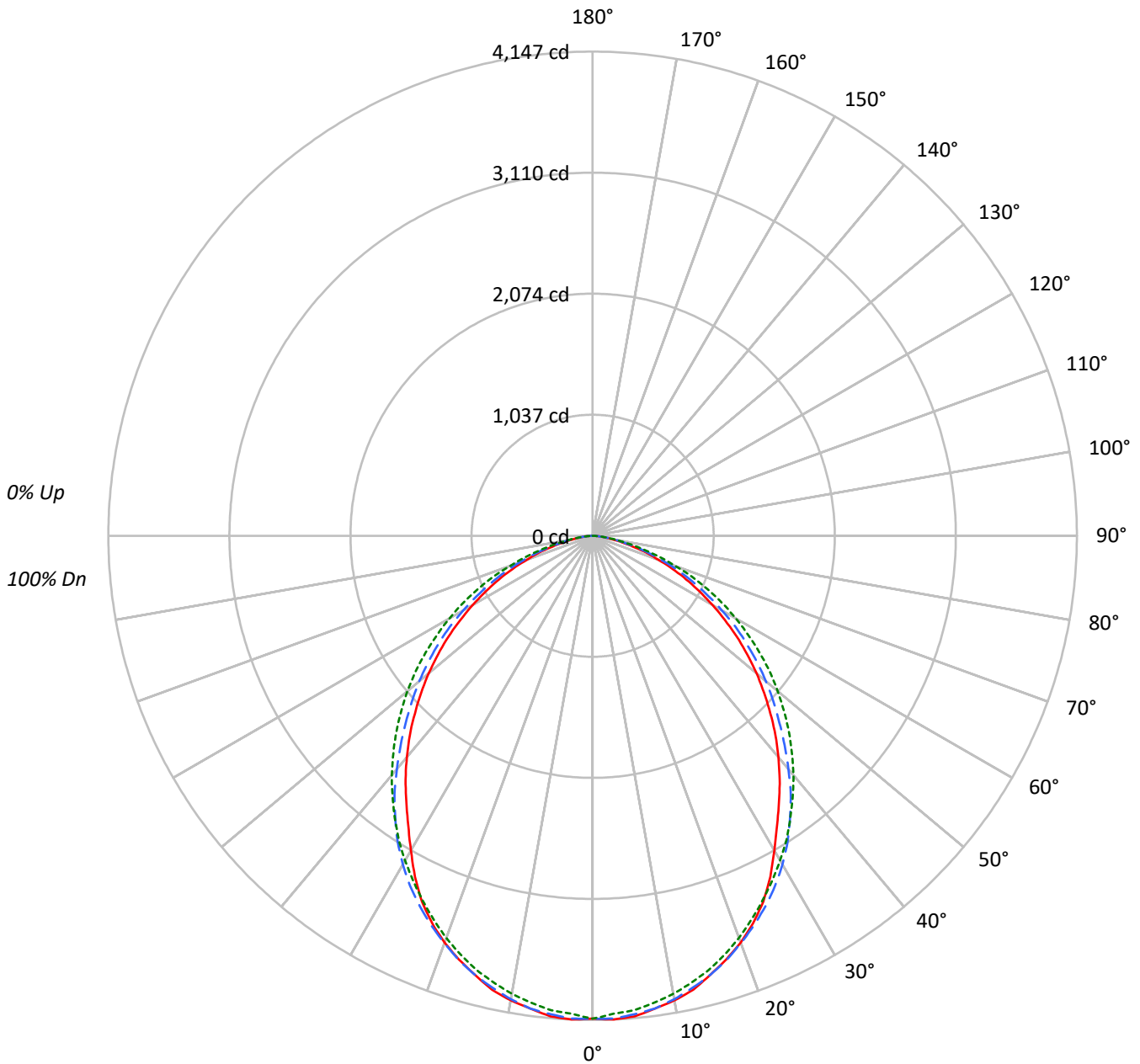
Lumens per Lamp: N/A
Luminaire Lumens: 9564.0 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				
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
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°	11130	11130	11130
5°	11160	11113	11018
10°	11041	11011	10885
15°	10846	10846	10722
20°	10616	10630	10493
25°	10266	10394	10229
30°	9668	10102	9979
35°	9135	9683	9699
40°	8691	9160	9400
45°	8194	8605	9047
50°	7670	8109	8661
55°	7075	7545	8193
60°	6371	6884	7620
65°	5626	6121	6931
70°	4688	5213	5888
75°	3684	4163	4609
80°	2634	2930	3250
85°	1717	1717	1618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	389.4	4.1
10°-20°	1094.0	11.4
20°-30°	1598.7	16.7
30°-40°	1814.7	19.0
40°-50°	1751.9	18.3
50°-60°	1445.2	15.1
60°-70°	962.4	10.1
70°-80°	430.6	4.5
80°-90°	77.0	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°	3082.2	32.2
0°-40°	4897.0	51.2
0°-60°	8094.0	84.6
0°-90°	9564.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4136	4136	4136	4136	4136	
5°	4131	4130	4114	4092	4079	391
15°	3893	3903	3893	3876	3849	1097
25°	3458	3485	3501	3475	3445	1583
35°	2781	2819	2948	2964	2952	1742
45°	2153	2190	2261	2364	2377	1661
55°	1508	1533	1608	1697	1746	1346
65°	884	907	961	1030	1088	876
75°	354	373	400	420	443	387
85°	56	56	56	52	52	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4136.2	4136.2	4136.2	4136.2	4136.2
2.5°	4147.3	4148.9	4139.4	4113.9	4098.0
5°	4131.4	4129.8	4113.9	4091.7	4079.0
7.5°	4085.3	4088.5	4083.7	4052.0	4034.5
10°	4040.8	4042.4	4029.7	4004.3	3983.6
12.5°	3983.6	3982.0	3964.6	3951.9	3918.5
15°	3893.1	3902.6	3893.1	3875.6	3848.6
17.5°	3805.7	3805.7	3812.0	3781.8	3761.2
20°	3707.2	3711.9	3711.9	3688.1	3664.2
22.5°	3592.7	3607.0	3611.8	3586.4	3557.8
25°	3457.7	3484.7	3500.6	3475.2	3445.0
27.5°	3294.0	3335.3	3383.0	3363.9	3330.6
30°	3111.3	3171.7	3251.1	3235.2	3211.4
32.5°	2938.1	2998.5	3108.1	3101.7	3089.0
35°	2780.8	2818.9	2947.6	2963.5	2952.4
37.5°	2631.4	2666.4	2787.1	2823.7	2814.1
40°	2474.1	2512.2	2607.6	2672.7	2675.9
42.5°	2318.4	2354.9	2432.8	2526.5	2526.5
45°	2153.1	2189.7	2261.2	2364.4	2377.2
47.5°	1991.0	2029.2	2099.1	2202.4	2223.0
50°	1832.1	1867.1	1937.0	2037.1	2068.9
52.5°	1666.9	1705.0	1773.3	1865.5	1911.6
55°	1508.0	1533.4	1608.1	1697.1	1746.3
57.5°	1342.7	1366.5	1450.8	1527.0	1577.9
60°	1183.8	1214.0	1279.1	1357.0	1415.8
62.5°	1031.3	1063.0	1118.7	1187.0	1253.7
65°	883.5	907.3	961.3	1029.7	1088.5
67.5°	740.5	761.1	815.2	862.8	924.8
70°	595.9	622.9	662.6	708.7	748.4
72.5°	479.9	491.0	524.4	557.7	599.1
75°	354.3	373.4	400.4	419.5	443.3
77.5°	254.2	265.4	281.3	297.1	319.4
80°	170.0	174.8	189.1	192.3	209.7
82.5°	103.3	106.5	109.6	111.2	117.6
85°	55.6	55.6	55.6	52.4	52.4
87.5°	31.8	31.8	27.0	22.2	15.9
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)