

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: P558235

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-94-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: P558235
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-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

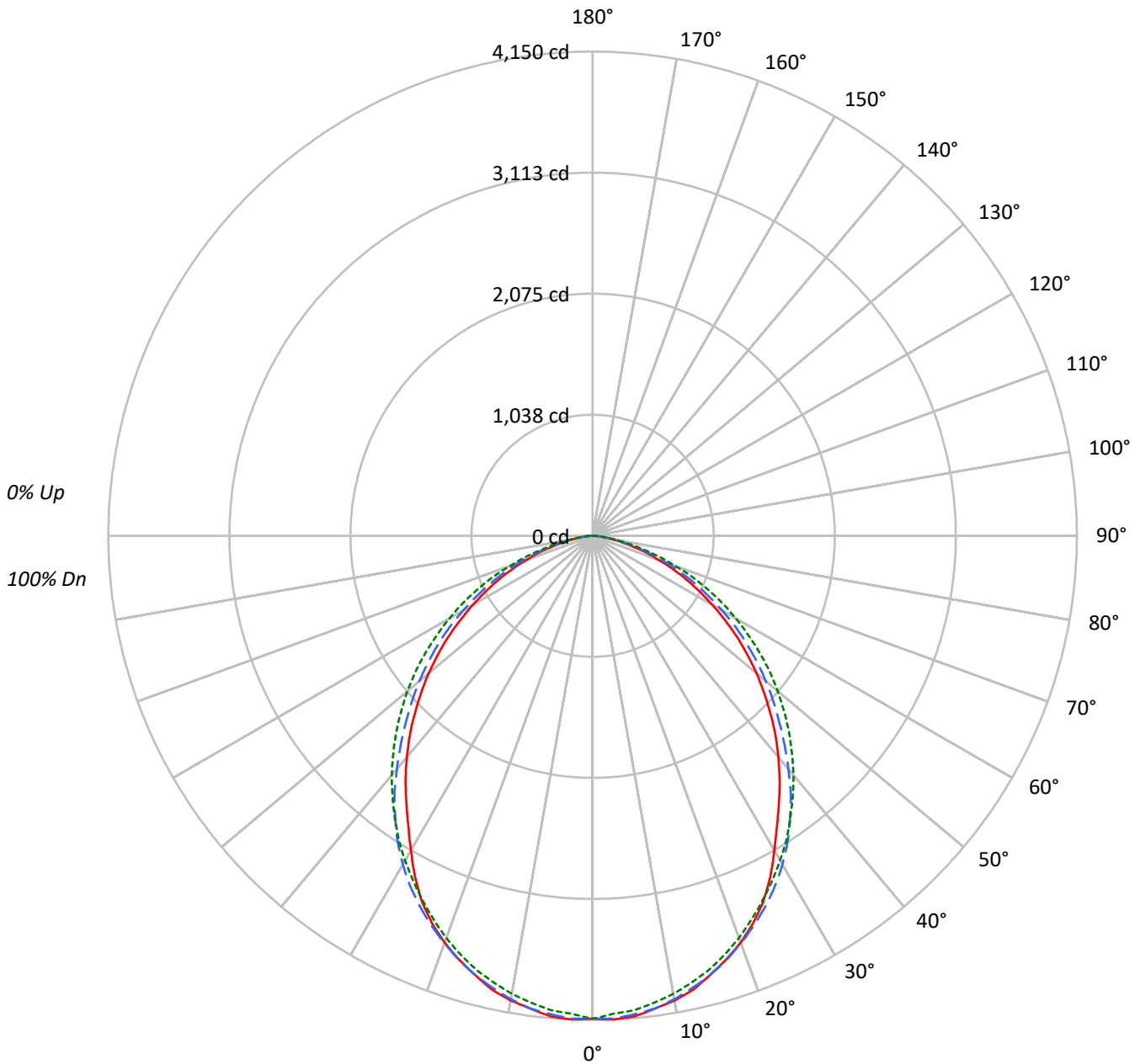
Lumens per Lamp: N/A
Luminaire Lumens: 9571.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11138	11138	11138
5°	11168	11121	11027
10°	11050	11019	10893
15°	10854	10854	10730
20°	10624	10637	10501
25°	10274	10401	10236
30°	9675	10110	9986
35°	9142	9690	9706
40°	8697	9167	9407
45°	8200	8611	9053
50°	7676	8115	8668
55°	7080	7550	8199
60°	6376	6889	7625
65°	5629	6126	6936
70°	4692	5217	5893
75°	3687	4166	4613
80°	2636	2932	3253
85°	1720	1720	1621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	389.7	4.1
10°-20°	1094.8	11.4
20°-30°	1599.9	16.7
30°-40°	1816.1	19.0
40°-50°	1753.1	18.3
50°-60°	1446.2	15.1
60°-70°	963.1	10.1
70°-80°	431.0	4.5
80°-90°	77.1	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°	3084.5	32.2
0°-40°	4900.5	51.2
0°-60°	8099.9	84.6
0°-90°	9571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9571.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4139	4139	4139	4139	4139	
5°	4134	4133	4117	4095	4082	391
15°	3896	3906	3896	3878	3851	1098
25°	3460	3487	3503	3478	3448	1585
35°	2783	2821	2950	2966	2954	1744
45°	2155	2191	2263	2366	2379	1662
55°	1509	1534	1609	1698	1748	1347
65°	884	908	962	1030	1089	877
75°	355	374	401	420	444	388
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°	4139.2	4139.2	4139.2	4139.2	4139.2
2.5°	4150.3	4151.9	4142.4	4116.9	4101.0
5°	4134.4	4132.8	4116.9	4094.7	4082.0
7.5°	4088.3	4091.5	4086.7	4054.9	4037.4
10°	4043.8	4045.4	4032.7	4007.2	3986.6
12.5°	3986.6	3985.0	3967.5	3954.8	3921.4
15°	3895.9	3905.5	3895.9	3878.4	3851.4
17.5°	3808.5	3808.5	3814.8	3784.6	3763.9
20°	3709.9	3714.6	3714.6	3690.8	3666.9
22.5°	3595.4	3609.7	3614.5	3589.0	3560.4
25°	3460.2	3487.2	3503.1	3477.7	3447.5
27.5°	3296.4	3337.8	3385.5	3366.4	3333.0
30°	3113.6	3174.0	3253.5	3237.6	3213.7
32.5°	2940.2	3000.6	3110.4	3104.0	3091.3
35°	2782.8	2821.0	2949.8	2965.7	2954.5
37.5°	2633.3	2668.3	2789.2	2825.7	2816.2
40°	2475.9	2514.1	2609.5	2674.7	2677.8
42.5°	2320.1	2356.6	2434.5	2528.4	2528.4
45°	2154.7	2191.3	2262.8	2366.2	2378.9
47.5°	1992.5	2030.6	2100.6	2204.0	2224.6
50°	1833.5	1868.4	1938.4	2038.6	2070.4
52.5°	1668.1	1706.3	1774.6	1866.9	1913.0
55°	1509.1	1534.5	1609.3	1698.3	1747.6
57.5°	1343.7	1367.5	1451.8	1528.2	1579.0
60°	1184.7	1214.9	1280.1	1358.0	1416.8
62.5°	1032.0	1063.8	1119.5	1187.9	1254.6
65°	884.1	908.0	962.1	1030.4	1089.3
67.5°	741.0	761.7	815.8	863.5	925.5
70°	596.3	623.3	663.1	709.2	749.0
72.5°	480.2	491.4	524.8	558.1	599.5
75°	354.6	373.7	400.7	419.8	443.7
77.5°	254.4	265.6	281.5	297.4	319.6
80°	170.1	174.9	189.2	192.4	209.9
82.5°	103.4	106.5	109.7	111.3	117.7
85°	55.7	55.7	55.7	52.5	52.5
87.5°	31.8	31.8	27.0	22.3	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)