

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: P557109

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-80-86-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: P557109
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-LD4-2HI-50-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

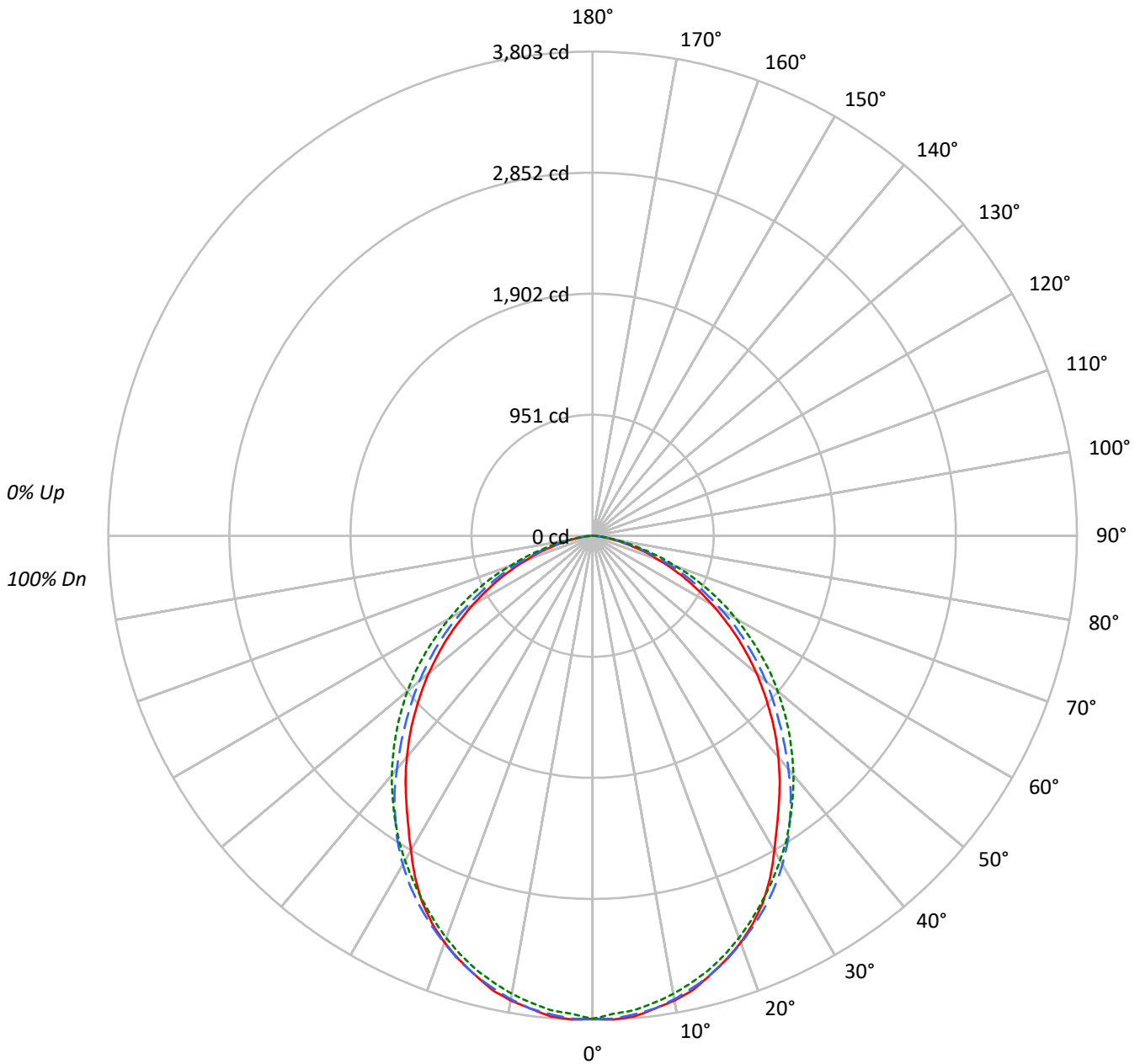
Lumens per Lamp: N/A
Luminaire Lumens: 8771.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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									
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°	10207	10207	10207
5°	10235	10191	10105
10°	10126	10098	9983
15°	9947	9947	9833
20°	9736	9748	9623
25°	9415	9532	9380
30°	8866	9264	9151
35°	8378	8880	8895
40°	7970	8401	8620
45°	7515	7892	8297
50°	7034	7437	7943
55°	6488	6919	7514
60°	5843	6314	6988
65°	5159	5613	6356
70°	4300	4781	5401
75°	3379	3818	4227
80°	2416	2687	2982
85°	1575	1575	1485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	357.1	4.1
10°-20°	1003.3	11.4
20°-30°	1466.2	16.7
30°-40°	1664.3	19.0
40°-50°	1606.6	18.3
50°-60°	1325.3	15.1
60°-70°	882.6	10.1
70°-80°	394.9	4.5
80°-90°	70.7	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°	2826.6	32.2
0°-40°	4490.9	51.2
0°-60°	7422.8	84.6
0°-90°	8771.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8771.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3793	3793	3793	3793	3793	
5°	3789	3787	3773	3752	3741	359
15°	3570	3579	3570	3554	3530	1006
25°	3171	3196	3210	3187	3159	1452
35°	2550	2585	2703	2718	2708	1598
45°	1975	2008	2074	2168	2180	1523
55°	1383	1406	1475	1556	1602	1234
65°	810	832	882	944	998	803
75°	325	342	367	385	407	355
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3793.2	3793.2	3793.2	3793.2	3793.2
2.5°	3803.4	3804.9	3796.1	3772.8	3758.3
5°	3788.9	3787.4	3772.8	3752.4	3740.8
7.5°	3746.6	3749.5	3745.1	3716.0	3700.0
10°	3705.8	3707.3	3695.6	3672.3	3653.3
12.5°	3653.3	3651.9	3635.8	3624.2	3593.6
15°	3570.3	3579.0	3570.3	3554.2	3529.5
17.5°	3490.1	3490.1	3496.0	3468.3	3449.3
20°	3399.8	3404.1	3404.1	3382.3	3360.4
22.5°	3294.9	3308.0	3312.3	3289.0	3262.8
25°	3171.0	3195.8	3210.3	3187.0	3159.3
27.5°	3020.9	3058.8	3102.5	3085.0	3054.4
30°	2853.3	2908.7	2981.5	2967.0	2945.1
32.5°	2694.5	2749.8	2850.4	2844.6	2832.9
35°	2550.2	2585.2	2703.2	2717.8	2707.6
37.5°	2413.2	2445.3	2556.0	2589.5	2580.8
40°	2268.9	2303.9	2391.4	2451.1	2454.0
42.5°	2126.1	2159.6	2231.1	2317.0	2317.0
45°	1974.6	2008.1	2073.7	2168.4	2180.1
47.5°	1825.9	1860.9	1925.0	2019.8	2038.7
50°	1680.2	1712.3	1776.4	1868.2	1897.3
52.5°	1528.7	1563.6	1626.3	1710.8	1753.1
55°	1382.9	1406.2	1474.7	1556.3	1601.5
57.5°	1231.4	1253.2	1330.5	1400.4	1447.1
60°	1085.7	1113.3	1173.1	1244.5	1298.4
62.5°	945.8	974.9	1025.9	1088.6	1149.8
65°	810.2	832.1	881.6	944.3	998.2
67.5°	679.1	698.0	747.6	791.3	848.1
70°	546.5	571.2	607.7	649.9	686.4
72.5°	440.1	450.3	480.9	511.5	549.4
75°	325.0	342.5	367.2	384.7	406.6
77.5°	233.2	243.4	257.9	272.5	292.9
80°	155.9	160.3	173.4	176.3	192.4
82.5°	94.7	97.6	100.6	102.0	107.8
85°	51.0	51.0	51.0	48.1	48.1
87.5°	29.1	29.1	24.8	20.4	14.6
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)