

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: P558386

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-80-85-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: P558386
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-80-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

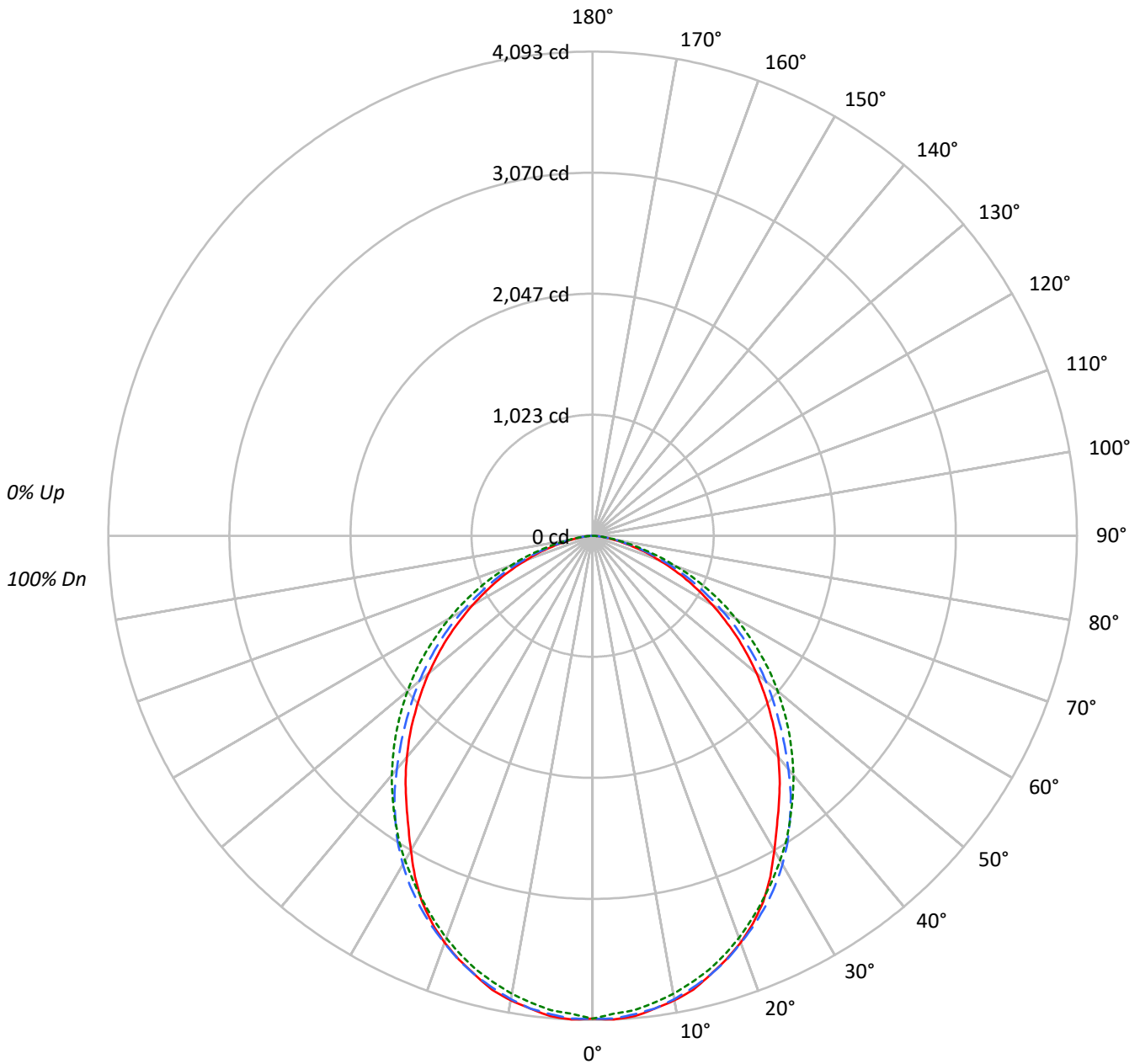
Lumens per Lamp: N/A
Luminaire Lumens: 9439.0 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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°	10985	10985	10985
5°	11014	10968	10874
10°	10897	10867	10743
15°	10704	10704	10582
20°	10477	10491	10356
25°	10132	10258	10095
30°	9541	9970	9848
35°	9016	9557	9572
40°	8577	9040	9277
45°	8087	8493	8928
50°	7570	8003	8548
55°	6982	7446	8086
60°	6288	6794	7520
65°	5552	6041	6840
70°	4627	5146	5811
75°	3636	4109	4549
80°	2600	2892	3208
85°	1695	1695	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.3	4.1
10°-20°	1079.7	11.4
20°-30°	1577.8	16.7
30°-40°	1791.0	19.0
40°-50°	1729.0	18.3
50°-60°	1426.3	15.1
60°-70°	949.8	10.1
70°-80°	425.0	4.5
80°-90°	76.1	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°	3041.9	32.2
0°-40°	4832.9	51.2
0°-60°	7988.2	84.6
0°-90°	9439.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9439.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4082	4082	4082	4082	4082	
5°	4077	4076	4060	4038	4026	386
15°	3842	3852	3842	3825	3798	1083
25°	3412	3439	3455	3430	3400	1563
35°	2744	2782	2909	2925	2914	1720
45°	2125	2161	2232	2334	2346	1640
55°	1488	1513	1587	1675	1724	1328
65°	872	896	949	1016	1074	865
75°	350	368	395	414	438	382
85°	55	55	55	52	52	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4082.1	4082.1	4082.1	4082.1	4082.1
2.5°	4093.1	4094.7	4085.3	4060.2	4044.5
5°	4077.4	4075.9	4060.2	4038.2	4025.7
7.5°	4031.9	4035.1	4030.4	3999.0	3981.8
10°	3988.0	3989.6	3977.1	3952.0	3931.6
12.5°	3931.6	3930.0	3912.8	3900.2	3867.3
15°	3842.2	3851.6	3842.2	3824.9	3798.3
17.5°	3755.9	3755.9	3762.2	3732.4	3712.0
20°	3658.7	3663.4	3663.4	3639.9	3616.4
22.5°	3545.8	3559.9	3564.6	3539.5	3511.3
25°	3412.5	3439.1	3454.8	3429.7	3399.9
27.5°	3251.0	3291.7	3338.8	3320.0	3287.0
30°	3070.6	3130.2	3208.6	3192.9	3169.4
32.5°	2899.7	2959.3	3067.5	3061.2	3048.7
35°	2744.4	2782.1	2909.1	2924.8	2913.8
37.5°	2597.0	2631.5	2750.7	2786.8	2777.3
40°	2441.7	2479.4	2573.5	2637.8	2640.9
42.5°	2288.1	2324.1	2401.0	2493.5	2493.5
45°	2125.0	2161.0	2231.6	2333.5	2346.1
47.5°	1965.0	2002.6	2071.6	2173.6	2194.0
50°	1808.2	1842.7	1911.7	2010.5	2041.8
52.5°	1645.1	1682.7	1750.2	1841.1	1886.6
55°	1488.3	1513.3	1587.1	1674.9	1723.5
57.5°	1325.2	1348.7	1431.8	1507.1	1557.3
60°	1168.3	1198.1	1262.4	1339.3	1397.3
62.5°	1017.8	1049.2	1104.0	1171.5	1237.3
65°	871.9	895.5	948.8	1016.2	1074.2
67.5°	730.8	751.2	804.5	851.6	912.7
70°	588.1	614.7	654.0	699.4	738.6
72.5°	473.6	484.6	517.5	550.5	591.2
75°	349.7	368.5	395.2	414.0	437.5
77.5°	250.9	261.9	277.6	293.3	315.2
80°	167.8	172.5	186.6	189.8	207.0
82.5°	101.9	105.1	108.2	109.8	116.0
85°	54.9	54.9	54.9	51.8	51.8
87.5°	31.4	31.4	26.7	22.0	15.7
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)