

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: P558227

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-85-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: P558227
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-82-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

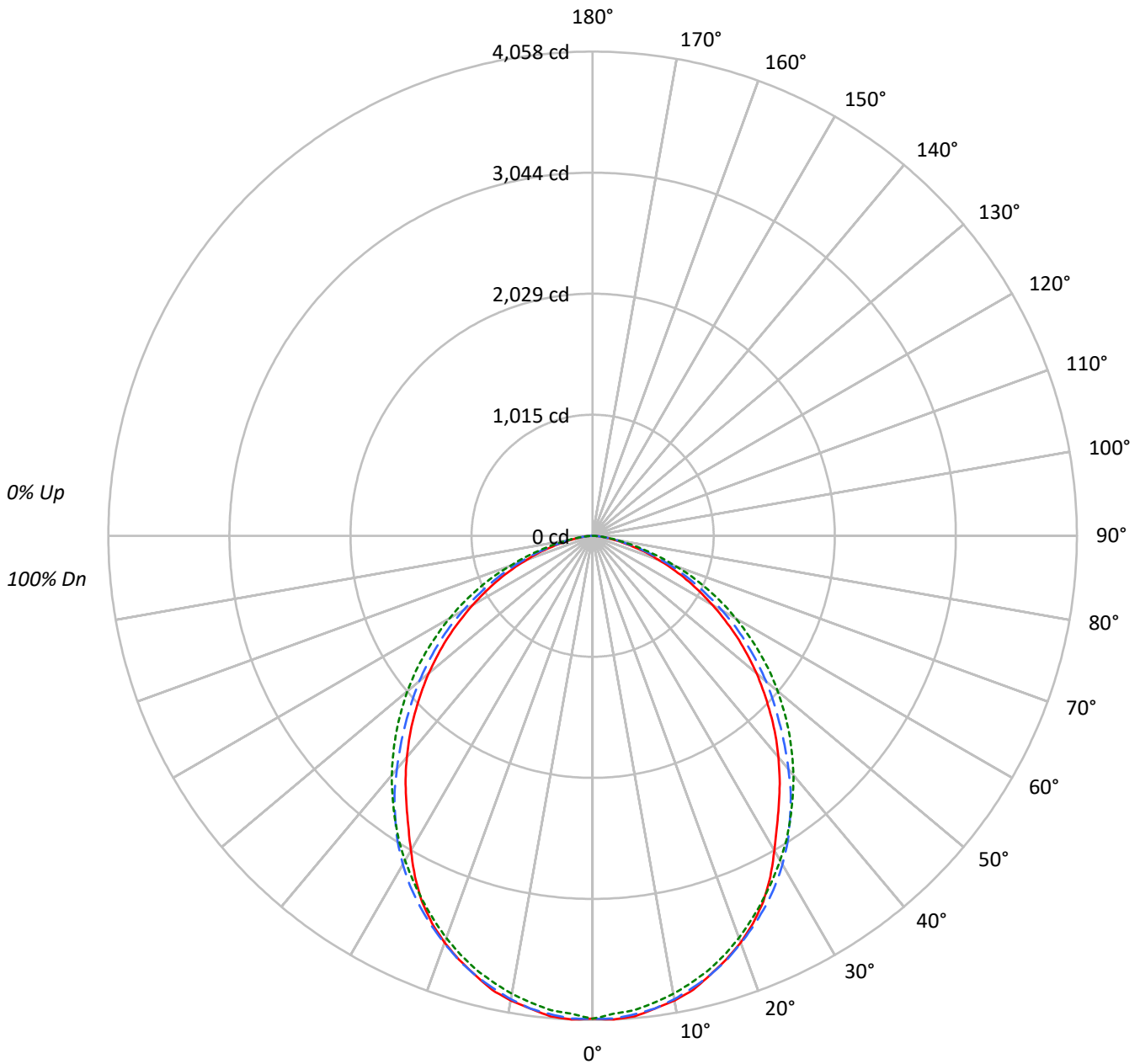
Lumens per Lamp: N/A
Luminaire Lumens: 9359.0 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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°	10892	10892	10892
5°	10921	10875	10782
10°	10805	10775	10652
15°	10613	10613	10492
20°	10389	10402	10268
25°	10046	10171	10009
30°	9460	9885	9765
35°	8939	9475	9491
40°	8505	8964	9198
45°	8018	8421	8853
50°	7506	7935	8475
55°	6923	7383	8017
60°	6234	6737	7457
65°	5505	5990	6782
70°	4588	5102	5762
75°	3606	4074	4510
80°	2579	2867	3181
85°	1680	1680	1584



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	381.1	4.1
10°-20°	1070.6	11.4
20°-30°	1564.5	16.7
30°-40°	1775.9	19.0
40°-50°	1714.3	18.3
50°-60°	1414.2	15.1
60°-70°	941.7	10.1
70°-80°	421.4	4.5
80°-90°	75.4	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°	3016.1	32.2
0°-40°	4792.0	51.2
0°-60°	7920.5	84.6
0°-90°	9359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4048	4048	4048	4048	4048	
5°	4043	4041	4026	4004	3992	383
15°	3810	3819	3810	3792	3766	1074
25°	3384	3410	3426	3401	3371	1550
35°	2721	2758	2884	2900	2889	1705
45°	2107	2143	2213	2314	2326	1626
55°	1476	1500	1574	1661	1709	1317
65°	865	888	941	1008	1065	857
75°	347	365	392	410	434	379
85°	54	54	54	51	51	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4047.5	4047.5	4047.5	4047.5	4047.5
2.5°	4058.4	4060.0	4050.6	4025.8	4010.2
5°	4042.9	4041.3	4025.8	4004.0	3991.5
7.5°	3997.8	4000.9	3996.2	3965.1	3948.0
10°	3954.2	3955.8	3943.3	3918.5	3898.3
12.5°	3898.3	3896.7	3879.6	3867.2	3834.5
15°	3809.6	3818.9	3809.6	3792.5	3766.1
17.5°	3724.1	3724.1	3730.3	3700.8	3680.6
20°	3627.7	3632.4	3632.4	3609.0	3585.7
22.5°	3515.7	3529.7	3534.4	3509.5	3481.5
25°	3383.6	3410.0	3425.5	3400.7	3371.1
27.5°	3223.4	3263.8	3310.5	3291.8	3259.2
30°	3044.6	3103.7	3181.4	3165.9	3142.5
32.5°	2875.1	2934.2	3041.5	3035.3	3022.8
35°	2721.2	2758.5	2884.4	2900.0	2889.1
37.5°	2575.0	2609.2	2727.4	2763.1	2753.8
40°	2421.1	2458.4	2551.7	2615.4	2618.5
42.5°	2268.7	2304.4	2380.6	2472.4	2472.4
45°	2107.0	2142.7	2212.7	2313.8	2326.2
47.5°	1948.3	1985.7	2054.1	2155.2	2175.4
50°	1792.9	1827.1	1895.5	1993.4	2024.5
52.5°	1631.1	1668.5	1735.3	1825.5	1870.6
55°	1475.6	1500.5	1573.6	1660.7	1708.9
57.5°	1313.9	1337.3	1419.7	1494.3	1544.1
60°	1158.4	1188.0	1251.7	1327.9	1385.5
62.5°	1009.2	1040.3	1094.7	1161.5	1226.9
65°	864.6	887.9	940.7	1007.6	1065.1
67.5°	724.6	744.8	797.7	844.3	905.0
70°	583.1	609.5	648.4	693.5	732.4
72.5°	469.6	480.5	513.1	545.8	586.2
75°	346.8	365.4	391.8	410.5	433.8
77.5°	248.8	259.7	275.2	290.8	312.5
80°	166.4	171.0	185.0	188.1	205.3
82.5°	101.1	104.2	107.3	108.8	115.1
85°	54.4	54.4	54.4	51.3	51.3
87.5°	31.1	31.1	26.4	21.8	15.5
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)