

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: P558388

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-80-86-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: P558388
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-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

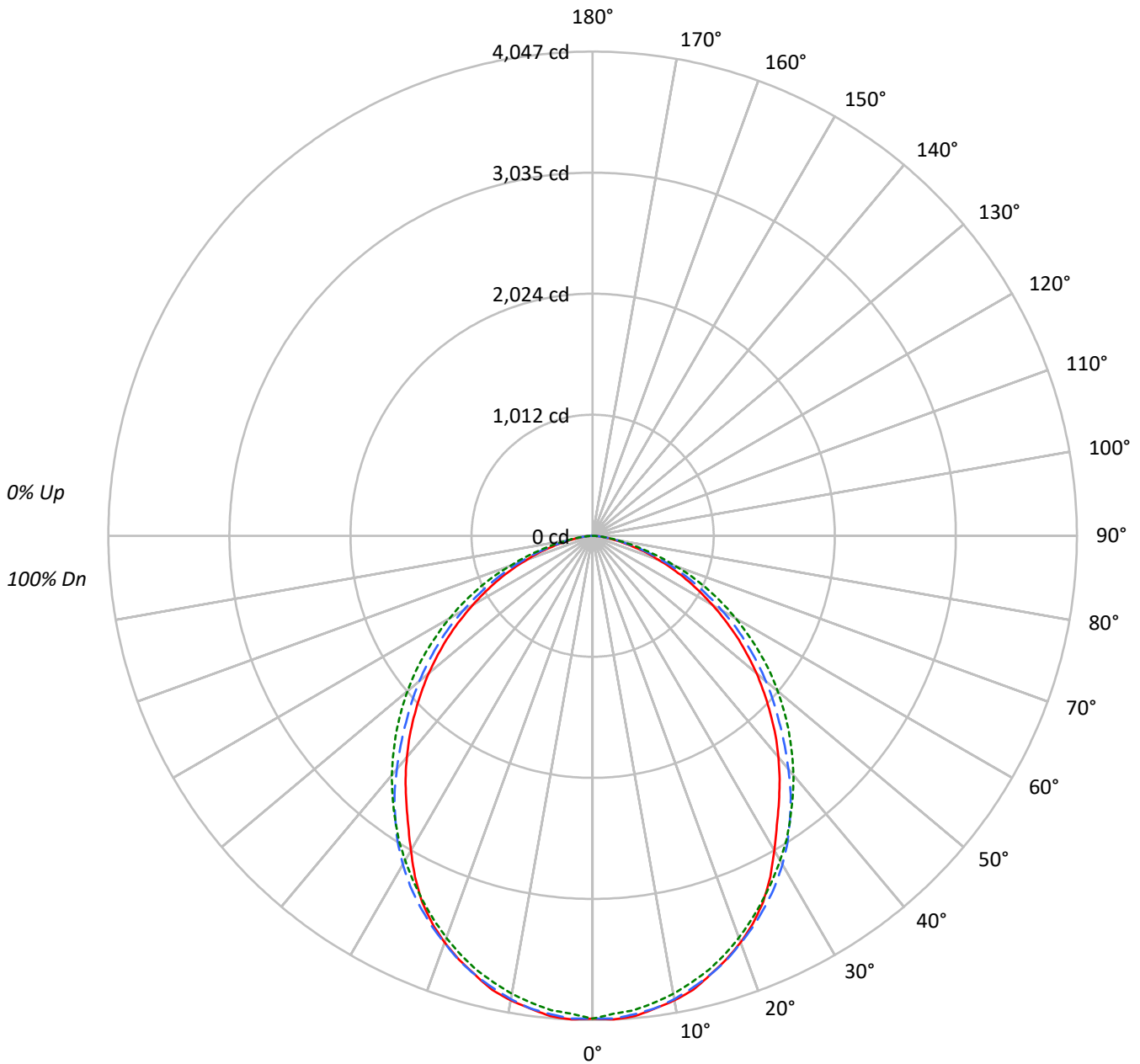
Lumens per Lamp: N/A
Luminaire Lumens: 9332.0 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	10860	10860	10860
5°	10889	10843	10751
10°	10774	10744	10621
15°	10583	10583	10462
20°	10359	10372	10239
25°	10017	10142	9981
30°	9433	9857	9737
35°	8913	9448	9464
40°	8480	8938	9172
45°	7995	8396	8827
50°	7484	7912	8451
55°	6903	7362	7994
60°	6217	6717	7435
65°	5489	5973	6763
70°	4574	5087	5746
75°	3595	4062	4498
80°	2571	2859	3172
85°	1677	1677	1581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.0	4.1
10°-20°	1067.5	11.4
20°-30°	1560.0	16.7
30°-40°	1770.7	19.0
40°-50°	1709.4	18.3
50°-60°	1410.1	15.1
60°-70°	939.0	10.1
70°-80°	420.2	4.5
80°-90°	75.2	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°	3007.4	32.2
0°-40°	4778.2	51.2
0°-60°	7897.6	84.6
0°-90°	9332.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9332.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4036	4036	4036	4036	4036	
5°	4031	4030	4014	3992	3980	382
15°	3799	3808	3799	3782	3755	1071
25°	3374	3400	3416	3391	3361	1545
35°	2713	2750	2876	2892	2881	1700
45°	2101	2136	2206	2307	2320	1621
55°	1471	1496	1569	1656	1704	1313
65°	862	885	938	1005	1062	855
75°	346	364	391	409	433	378
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°	4035.8	4035.8	4035.8	4035.8	4035.8
2.5°	4046.7	4048.3	4038.9	4014.1	3998.6
5°	4031.2	4029.6	4014.1	3992.4	3980.0
7.5°	3986.2	3989.3	3984.7	3953.7	3936.6
10°	3942.8	3944.4	3932.0	3907.2	3887.0
12.5°	3887.0	3885.5	3868.4	3856.0	3823.4
15°	3798.6	3807.9	3798.6	3781.6	3755.2
17.5°	3713.4	3713.4	3719.6	3690.1	3669.9
20°	3617.2	3621.9	3621.9	3598.6	3575.4
22.5°	3505.6	3519.5	3524.2	3499.4	3471.5
25°	3373.8	3400.2	3415.7	3390.9	3361.4
27.5°	3214.1	3254.4	3300.9	3282.3	3249.8
30°	3035.8	3094.7	3172.2	3156.7	3133.5
32.5°	2866.8	2925.7	3032.7	3026.5	3014.1
35°	2713.3	2750.5	2876.1	2891.6	2880.8
37.5°	2567.6	2601.7	2719.5	2755.2	2745.9
40°	2414.1	2451.3	2544.3	2607.9	2611.0
42.5°	2262.1	2297.8	2373.8	2465.2	2465.2
45°	2100.9	2136.5	2206.3	2307.1	2319.5
47.5°	1942.7	1979.9	2048.2	2148.9	2169.1
50°	1787.7	1821.8	1890.0	1987.7	2018.7
52.5°	1626.4	1663.6	1730.3	1820.2	1865.2
55°	1471.4	1496.2	1569.1	1655.9	1704.0
57.5°	1310.1	1333.4	1415.6	1490.0	1539.6
60°	1155.1	1184.6	1248.1	1324.1	1381.5
62.5°	1006.2	1037.3	1091.5	1158.2	1223.3
65°	862.1	885.3	938.0	1004.7	1062.1
67.5°	722.5	742.7	795.4	841.9	902.4
70°	581.4	607.8	646.5	691.5	730.3
72.5°	468.2	479.1	511.7	544.2	584.5
75°	345.8	364.4	390.7	409.3	432.6
77.5°	248.1	258.9	274.4	289.9	311.6
80°	165.9	170.6	184.5	187.6	204.7
82.5°	100.8	103.9	107.0	108.5	114.7
85°	54.3	54.3	54.3	51.2	51.2
87.5°	31.0	31.0	26.4	21.7	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)