

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: P558329

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-88-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: P558329
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-40-UNV-80-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

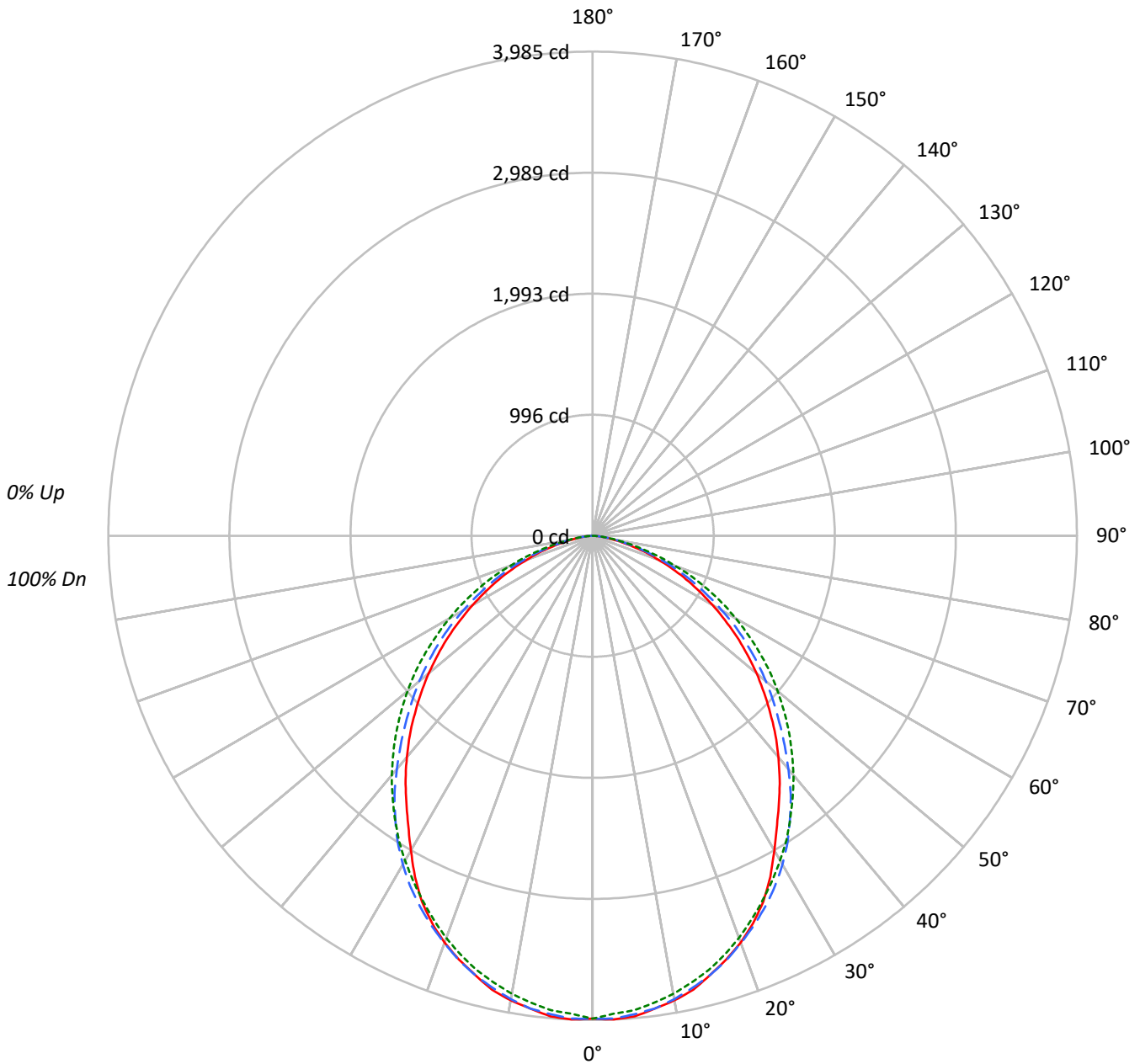
Lumens per Lamp: N/A
Luminaire Lumens: 9190.0 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	10695	10695	10695
5°	10724	10678	10588
10°	10610	10580	10460
15°	10422	10422	10303
20°	10201	10214	10083
25°	9865	9987	9829
30°	9290	9707	9588
35°	8778	9304	9319
40°	8351	8802	9032
45°	7873	8268	8693
50°	7370	7792	8323
55°	6798	7249	7872
60°	6122	6615	7322
65°	5405	5882	6660
70°	4505	5009	5659
75°	3540	4001	4429
80°	2532	2816	3123
85°	1649	1649	1556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.2	4.1
10°-20°	1051.2	11.4
20°-30°	1536.2	16.7
30°-40°	1743.8	19.0
40°-50°	1683.3	18.3
50°-60°	1388.6	15.1
60°-70°	924.7	10.1
70°-80°	413.8	4.5
80°-90°	74.0	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°	2961.7	32.2
0°-40°	4705.4	51.2
0°-60°	7777.4	84.6
0°-90°	9190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3974	3974	3974	3974	3974	
5°	3970	3968	3953	3932	3920	376
15°	3741	3750	3741	3724	3698	1055
25°	3322	3348	3364	3339	3310	1522
35°	2672	2709	2832	2848	2837	1674
45°	2069	2104	2173	2272	2284	1596
55°	1449	1473	1545	1631	1678	1293
65°	849	872	924	989	1046	842
75°	340	359	385	403	426	372
85°	53	53	53	50	50	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3974.4	3974.4	3974.4	3974.4	3974.4
2.5°	3985.1	3986.7	3977.5	3953.1	3937.8
5°	3969.9	3968.3	3953.1	3931.7	3919.5
7.5°	3925.6	3928.6	3924.1	3893.5	3876.7
10°	3882.8	3884.4	3872.1	3847.7	3827.9
12.5°	3827.9	3826.3	3809.5	3797.3	3765.3
15°	3740.8	3750.0	3740.8	3724.0	3698.1
17.5°	3656.8	3656.8	3663.0	3633.9	3614.1
20°	3562.2	3566.8	3566.8	3543.9	3521.0
22.5°	3452.2	3466.0	3470.6	3446.1	3418.7
25°	3322.5	3348.4	3363.7	3339.3	3310.3
27.5°	3165.2	3204.9	3250.7	3232.4	3200.3
30°	2989.6	3047.6	3124.0	3108.7	3085.8
32.5°	2823.2	2881.2	2986.6	2980.4	2968.2
35°	2672.0	2708.7	2832.3	2847.6	2836.9
37.5°	2528.5	2562.1	2678.1	2713.2	2704.1
40°	2377.3	2414.0	2505.6	2568.2	2571.2
42.5°	2227.7	2262.8	2337.6	2427.7	2427.7
45°	2068.9	2104.0	2172.7	2272.0	2284.2
47.5°	1913.2	1949.8	2017.0	2116.2	2136.1
50°	1760.5	1794.1	1861.3	1957.4	1988.0
52.5°	1601.7	1638.3	1704.0	1792.5	1836.8
55°	1449.0	1473.4	1545.2	1630.7	1678.0
57.5°	1290.2	1313.1	1394.0	1467.3	1516.2
60°	1137.5	1166.5	1229.1	1303.9	1360.4
62.5°	990.9	1021.5	1074.9	1140.6	1204.7
65°	848.9	871.8	923.8	989.4	1045.9
67.5°	711.5	731.4	783.3	829.1	888.6
70°	572.6	598.5	636.7	681.0	719.2
72.5°	461.1	471.8	503.9	535.9	575.6
75°	340.5	358.8	384.8	403.1	426.0
77.5°	244.3	255.0	270.3	285.5	306.9
80°	163.4	168.0	181.7	184.8	201.5
82.5°	99.2	102.3	105.4	106.9	113.0
85°	53.4	53.4	53.4	50.4	50.4
87.5°	30.5	30.5	26.0	21.4	15.3
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)