

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: P556643

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-93-85-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: P556643
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-LD4-1LO-50-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

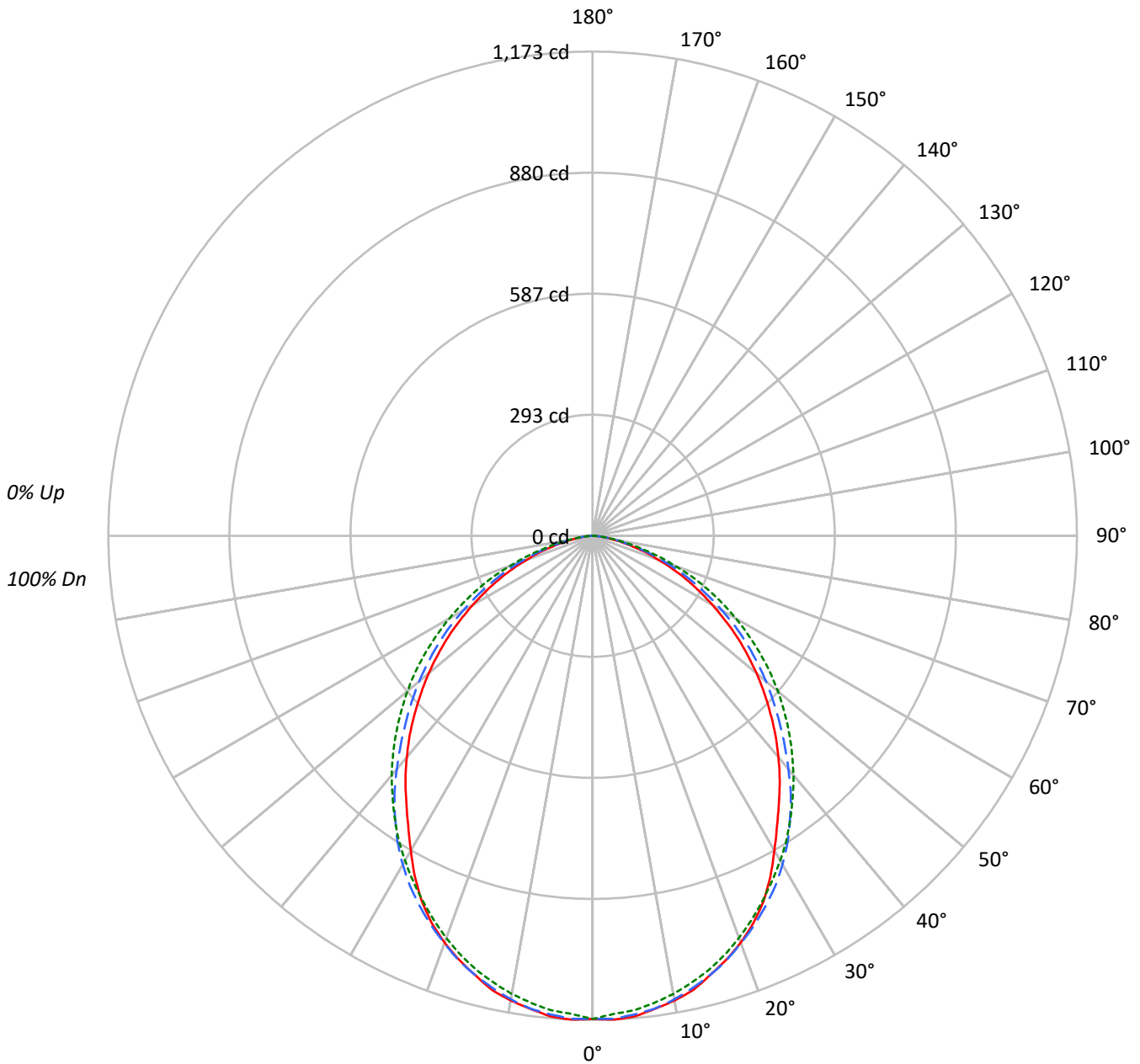
Lumens per Lamp: N/A
Luminaire Lumens: 2706.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	3149	3149	3149
5°	3158	3144	3118
10°	3124	3116	3080
15°	3069	3069	3034
20°	3004	3007	2969
25°	2905	2941	2894
30°	2735	2858	2823
35°	2585	2740	2744
40°	2459	2592	2660
45°	2318	2435	2560
50°	2170	2294	2451
55°	2002	2135	2318
60°	1802	1948	2156
65°	1592	1732	1961
70°	1327	1475	1666
75°	1043	1178	1304
80°	745	829	919
85°	485	485	457



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.2	4.1
10°-20°	309.5	11.4
20°-30°	452.3	16.7
30°-40°	513.5	19.0
40°-50°	495.7	18.3
50°-60°	408.9	15.1
60°-70°	272.3	10.1
70°-80°	121.9	4.5
80°-90°	21.8	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°	872.1	32.2
0°-40°	1385.5	51.2
0°-60°	2290.1	84.6
0°-90°	2706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2706.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1169	1168	1164	1158	1154	111
15°	1102	1104	1102	1096	1089	311
25°	978	986	990	983	975	448
35°	787	798	834	838	835	493
45°	609	620	640	669	673	470
55°	427	434	455	480	494	381
65°	250	257	272	291	308	248
75°	100	106	113	119	125	110
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1170.3	1170.3	1170.3	1170.3	1170.3
2.5°	1173.4	1173.9	1171.2	1164.0	1159.5
5°	1168.9	1168.5	1164.0	1157.7	1154.1
7.5°	1155.9	1156.8	1155.4	1146.4	1141.5
10°	1143.3	1143.7	1140.2	1133.0	1127.1
12.5°	1127.1	1126.7	1121.7	1118.1	1108.7
15°	1101.5	1104.2	1101.5	1096.5	1088.9
17.5°	1076.8	1076.8	1078.6	1070.0	1064.2
20°	1048.9	1050.2	1050.2	1043.5	1036.7
22.5°	1016.5	1020.6	1021.9	1014.7	1006.6
25°	978.3	985.9	990.4	983.2	974.7
27.5°	932.0	943.7	957.2	951.8	942.3
30°	880.3	897.4	919.9	915.4	908.6
32.5°	831.3	848.4	879.4	877.6	874.0
35°	786.8	797.6	834.0	838.5	835.3
37.5°	744.5	754.4	788.6	798.9	796.2
40°	700.0	710.8	737.8	756.2	757.1
42.5°	655.9	666.3	688.3	714.8	714.8
45°	609.2	619.5	639.8	669.0	672.6
47.5°	563.3	574.1	593.9	623.1	629.0
50°	518.4	528.3	548.0	576.4	585.4
52.5°	471.6	482.4	501.7	527.8	540.9
55°	426.7	433.9	455.0	480.2	494.1
57.5°	379.9	386.6	410.5	432.1	446.4
60°	334.9	343.5	361.9	383.9	400.6
62.5°	291.8	300.8	316.5	335.8	354.7
65°	250.0	256.7	272.0	291.3	308.0
67.5°	209.5	215.4	230.6	244.1	261.7
70°	168.6	176.2	187.5	200.5	211.8
72.5°	135.8	138.9	148.4	157.8	169.5
75°	100.3	105.7	113.3	118.7	125.4
77.5°	71.9	75.1	79.6	84.1	90.4
80°	48.1	49.5	53.5	54.4	59.3
82.5°	29.2	30.1	31.0	31.5	33.3
85°	15.7	15.7	15.7	14.8	14.8
87.5°	9.0	9.0	7.6	6.3	4.5
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)