

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: P556685

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-81-96-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: P556685
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-LD4-1STD-30-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

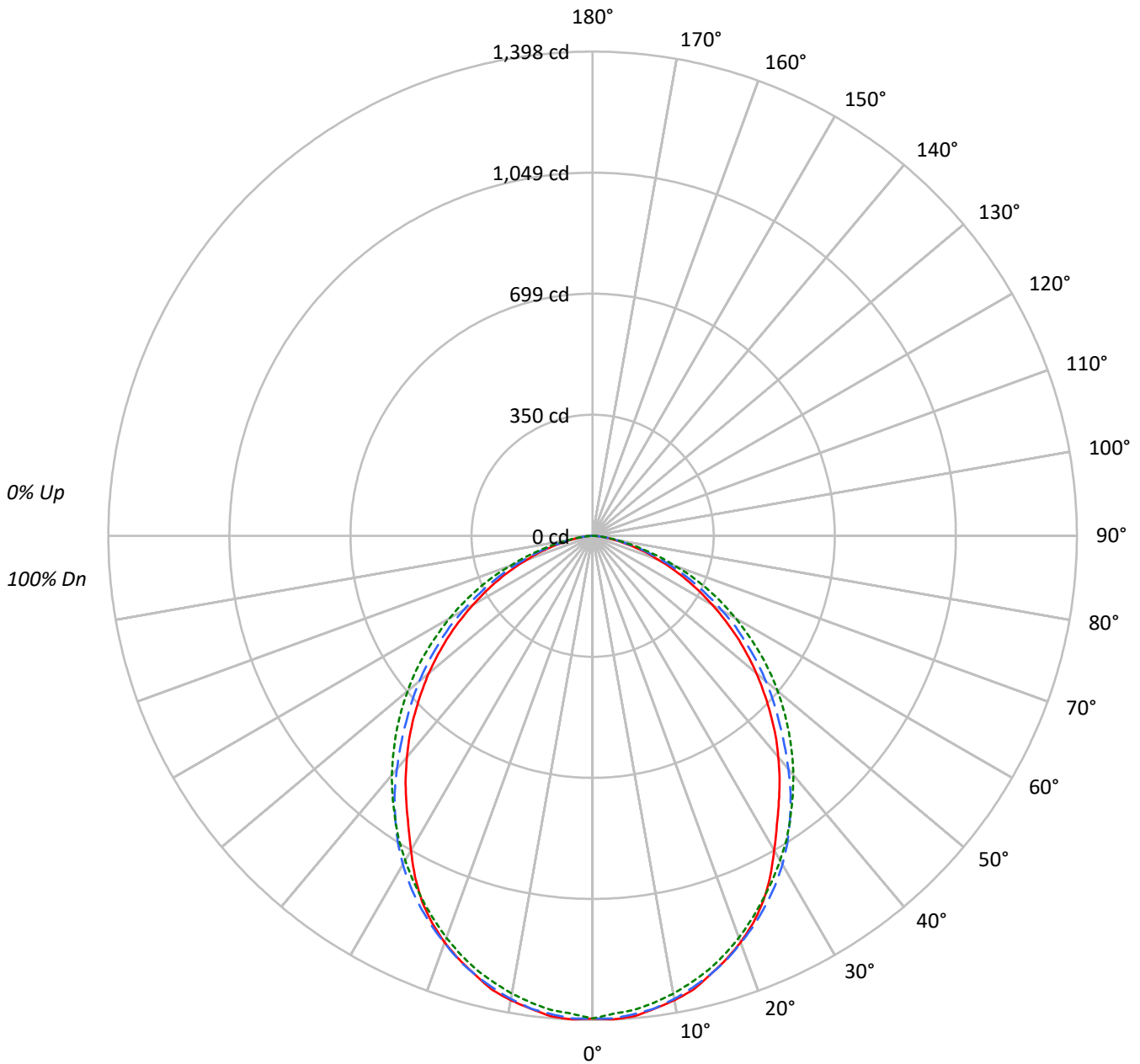
Lumens per Lamp: N/A
Luminaire Lumens: 3223.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3751	3751	3751
5°	3761	3745	3713
10°	3721	3711	3668
15°	3655	3655	3613
20°	3578	3582	3536
25°	3460	3503	3447
30°	3258	3404	3363
35°	3078	3263	3268
40°	2929	3087	3168
45°	2761	2900	3049
50°	2585	2733	2919
55°	2384	2542	2761
60°	2147	2320	2568
65°	1896	2063	2336
70°	1580	1757	1984
75°	1241	1403	1553
80°	888	987	1096
85°	577	577	546



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	4.1
10°-20°	368.7	11.4
20°-30°	538.8	16.7
30°-40°	611.6	19.0
40°-50°	590.4	18.3
50°-60°	487.0	15.1
60°-70°	324.3	10.1
70°-80°	145.1	4.5
80°-90°	26.0	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°	1038.7	32.2
0°-40°	1650.2	51.2
0°-60°	2727.6	84.6
0°-90°	3223.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3223.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1394	1394	1394	1394	1394	
5°	1392	1392	1386	1379	1375	132
15°	1312	1315	1312	1306	1297	370
25°	1165	1174	1180	1171	1161	534
35°	937	950	993	999	995	587
45°	726	738	762	797	801	560
55°	508	517	542	572	588	454
65°	298	306	324	347	367	295
75°	119	126	135	141	149	131
85°	19	19	19	18	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1393.9	1393.9	1393.9	1393.9	1393.9
2.5°	1397.6	1398.1	1394.9	1386.4	1381.0
5°	1392.3	1391.7	1386.4	1378.9	1374.6
7.5°	1376.7	1377.8	1376.2	1365.5	1359.6
10°	1361.7	1362.3	1358.0	1349.4	1342.5
12.5°	1342.5	1341.9	1336.0	1331.7	1320.5
15°	1311.9	1315.1	1311.9	1306.0	1296.9
17.5°	1282.5	1282.5	1284.6	1274.5	1267.5
20°	1249.3	1250.9	1250.9	1242.9	1234.8
22.5°	1210.7	1215.5	1217.2	1208.6	1198.9
25°	1165.2	1174.3	1179.7	1171.1	1160.9
27.5°	1110.1	1124.0	1140.0	1133.6	1122.4
30°	1048.5	1068.8	1095.6	1090.2	1082.2
32.5°	990.1	1010.5	1047.4	1045.3	1041.0
35°	937.1	949.9	993.3	998.7	994.9
37.5°	886.8	898.5	939.2	951.6	948.3
40°	833.7	846.6	878.7	900.7	901.8
42.5°	781.3	793.6	819.8	851.4	851.4
45°	725.6	737.9	762.0	796.8	801.1
47.5°	671.0	683.8	707.4	742.2	749.1
50°	617.4	629.2	652.8	686.5	697.2
52.5°	561.7	574.6	597.6	628.7	644.2
55°	508.2	516.7	541.9	571.9	588.5
57.5°	452.5	460.5	488.9	514.6	531.7
60°	398.9	409.1	431.1	457.3	477.1
62.5°	347.5	358.2	377.0	400.0	422.5
65°	297.7	305.8	324.0	347.0	366.8
67.5°	249.5	256.5	274.7	290.8	311.7
70°	200.8	209.9	223.3	238.8	252.2
72.5°	161.7	165.5	176.7	188.0	201.9
75°	119.4	125.8	134.9	141.4	149.4
77.5°	85.7	89.4	94.8	100.1	107.6
80°	57.3	58.9	63.7	64.8	70.7
82.5°	34.8	35.9	36.9	37.5	39.6
85°	18.7	18.7	18.7	17.7	17.7
87.5°	10.7	10.7	9.1	7.5	5.4
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)