

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: P556673

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-81-84-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: P556673
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-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

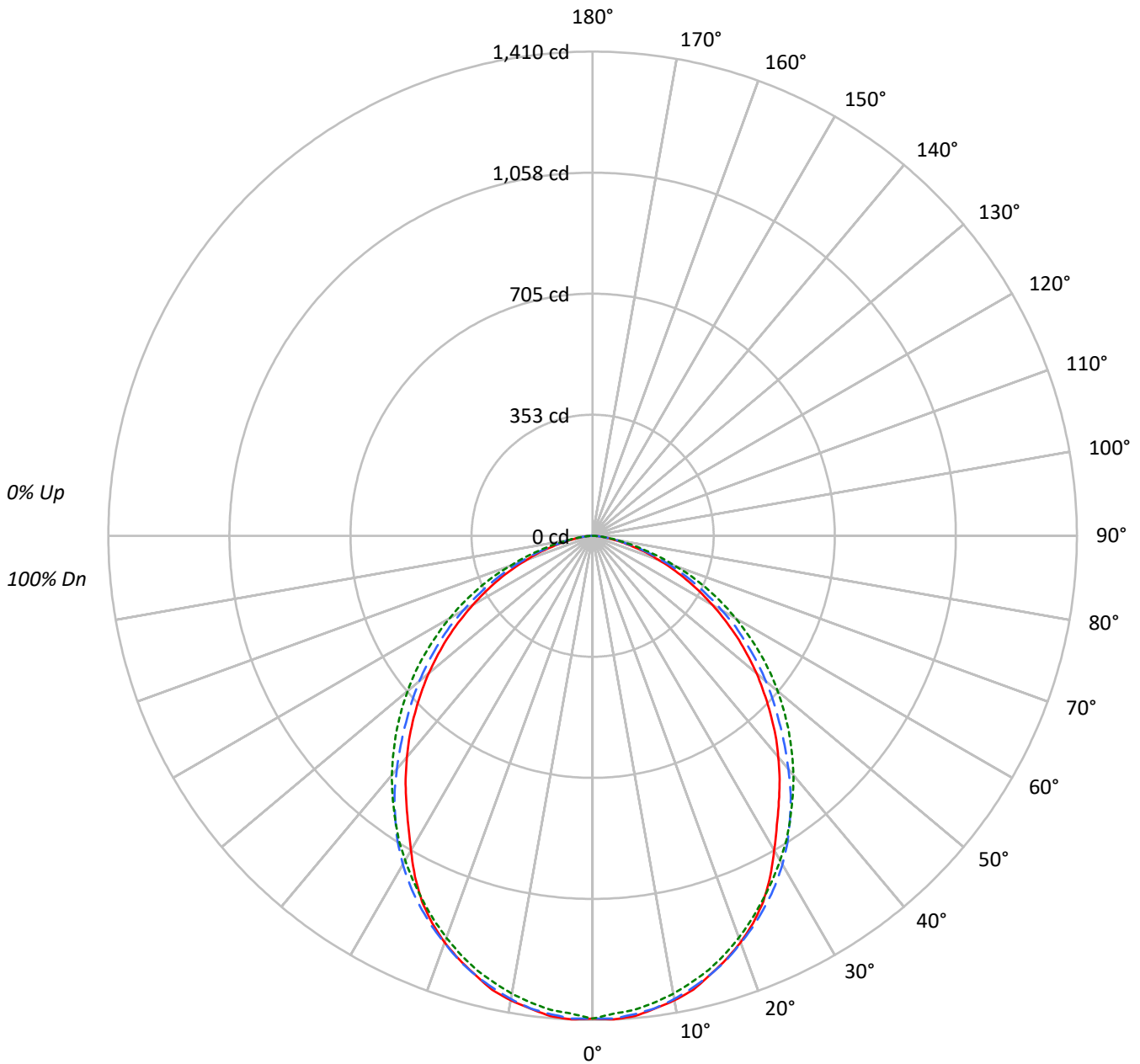
Lumens per Lamp: N/A
Luminaire Lumens: 3251.0 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3784	3784	3784
5°	3794	3777	3745
10°	3753	3743	3700
15°	3687	3687	3645
20°	3609	3613	3567
25°	3490	3533	3477
30°	3286	3434	3392
35°	3105	3292	3297
40°	2954	3114	3195
45°	2785	2925	3075
50°	2607	2756	2944
55°	2405	2564	2785
60°	2166	2340	2590
65°	1912	2081	2356
70°	1594	1772	2002
75°	1253	1415	1567
80°	896	996	1105
85°	584	584	550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	4.1
10°-20°	371.9	11.4
20°-30°	543.4	16.7
30°-40°	616.9	19.0
40°-50°	595.5	18.3
50°-60°	491.2	15.1
60°-70°	327.1	10.1
70°-80°	146.4	4.5
80°-90°	26.2	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°	1047.7	32.2
0°-40°	1664.6	51.2
0°-60°	2751.3	84.6
0°-90°	3251.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3251.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1406	1406	1406	1406	1406	
5°	1404	1404	1398	1391	1386	133
15°	1323	1327	1323	1317	1308	373
25°	1175	1184	1190	1181	1171	538
35°	945	958	1002	1007	1004	592
45°	732	744	769	804	808	565
55°	513	521	547	577	594	458
65°	300	308	327	350	370	298
75°	120	127	136	143	151	132
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°	1406.0	1406.0	1406.0	1406.0	1406.0
2.5°	1409.8	1410.3	1407.1	1398.4	1393.0
5°	1404.4	1403.8	1398.4	1390.8	1386.5
7.5°	1388.7	1389.8	1388.1	1377.3	1371.4
10°	1373.6	1374.1	1369.8	1361.1	1354.1
12.5°	1354.1	1353.6	1347.6	1343.3	1332.0
15°	1323.3	1326.6	1323.3	1317.4	1308.2
17.5°	1293.6	1293.6	1295.8	1285.5	1278.5
20°	1260.1	1261.8	1261.8	1253.7	1245.6
22.5°	1221.2	1226.1	1227.7	1219.1	1209.4
25°	1175.3	1184.5	1189.9	1181.3	1171.0
27.5°	1119.7	1133.7	1149.9	1143.5	1132.1
30°	1057.6	1078.1	1105.1	1099.7	1091.6
32.5°	998.7	1019.2	1056.5	1054.3	1050.0
35°	945.2	958.2	1002.0	1007.4	1003.6
37.5°	894.5	906.3	947.4	959.8	956.6
40°	841.0	854.0	886.4	908.5	909.6
42.5°	788.1	800.5	826.9	858.8	858.8
45°	731.9	744.3	768.6	803.7	808.0
47.5°	676.8	689.8	713.5	748.6	755.7
50°	622.8	634.7	658.4	692.5	703.3
52.5°	566.6	579.6	602.8	634.1	649.8
55°	512.6	521.2	546.6	576.9	593.6
57.5°	456.4	464.5	493.1	519.1	536.4
60°	402.4	412.7	434.8	461.3	481.3
62.5°	350.5	361.4	380.3	403.5	426.2
65°	300.3	308.4	326.8	350.0	370.0
67.5°	251.7	258.7	277.1	293.3	314.4
70°	202.6	211.7	225.2	240.9	254.4
72.5°	163.1	166.9	178.2	189.6	203.6
75°	120.5	126.9	136.1	142.6	150.7
77.5°	86.4	90.2	95.6	101.0	108.6
80°	57.8	59.4	64.3	65.4	71.3
82.5°	35.1	36.2	37.3	37.8	40.0
85°	18.9	18.9	18.9	17.8	17.8
87.5°	10.8	10.8	9.2	7.6	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)