

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: P556689

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-82-84-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: P556689
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-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

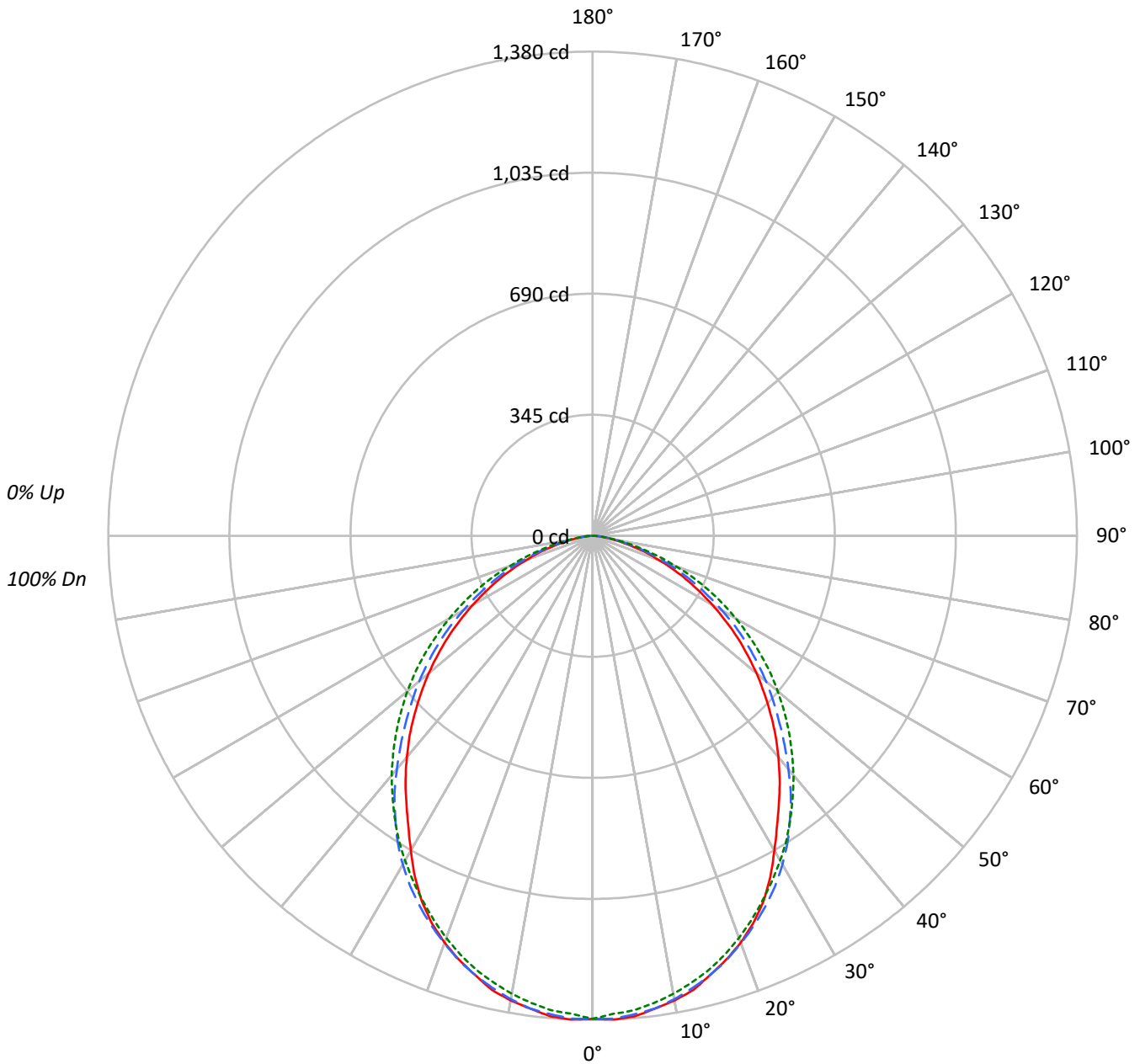
Lumens per Lamp: N/A
Luminaire Lumens: 3183.0 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3704	3704	3704
5°	3714	3699	3667
10°	3675	3665	3623
15°	3610	3610	3568
20°	3533	3538	3492
25°	3417	3459	3404
30°	3218	3362	3321
35°	3040	3223	3228
40°	2892	3048	3129
45°	2727	2864	3011
50°	2553	2699	2882
55°	2355	2511	2727
60°	2120	2291	2536
65°	1872	2037	2307
70°	1560	1735	1960
75°	1226	1386	1534
80°	877	975	1082
85°	571	571	540



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	4.1
10°-20°	364.1	11.4
20°-30°	532.1	16.7
30°-40°	604.0	19.0
40°-50°	583.0	18.3
50°-60°	481.0	15.1
60°-70°	320.3	10.1
70°-80°	143.3	4.5
80°-90°	25.6	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°	1025.8	32.2
0°-40°	1629.8	51.2
0°-60°	2693.8	84.6
0°-90°	3183.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3183.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1375	1374	1369	1362	1358	130
15°	1296	1299	1296	1290	1281	365
25°	1151	1160	1165	1157	1146	527
35°	926	938	981	986	983	580
45°	717	729	752	787	791	553
55°	502	510	535	565	581	448
65°	294	302	320	343	362	292
75°	118	124	133	140	148	129
85°	18	18	18	18	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1376.6	1376.6	1376.6	1376.6	1376.6
2.5°	1380.3	1380.8	1377.6	1369.2	1363.9
5°	1375.0	1374.4	1369.2	1361.8	1357.5
7.5°	1359.6	1360.7	1359.1	1348.5	1342.7
10°	1344.8	1345.4	1341.1	1332.7	1325.8
12.5°	1325.8	1325.3	1319.5	1315.2	1304.1
15°	1295.7	1298.8	1295.7	1289.8	1280.8
17.5°	1266.6	1266.6	1268.7	1258.6	1251.8
20°	1233.8	1235.4	1235.4	1227.4	1219.5
22.5°	1195.7	1200.5	1202.0	1193.6	1184.1
25°	1150.8	1159.7	1165.0	1156.6	1146.5
27.5°	1096.3	1110.0	1125.9	1119.6	1108.4
30°	1035.5	1055.6	1082.0	1076.7	1068.8
32.5°	977.8	997.9	1034.4	1032.3	1028.1
35°	925.5	938.2	981.0	986.3	982.6
37.5°	875.8	887.4	927.6	939.7	936.6
40°	823.4	836.1	867.8	889.5	890.6
42.5°	771.6	783.7	809.7	840.9	840.9
45°	716.6	728.7	752.5	786.9	791.1
47.5°	662.6	675.3	698.6	733.0	739.8
50°	609.8	621.4	644.7	678.0	688.5
52.5°	554.8	567.4	590.2	620.9	636.2
55°	501.9	510.3	535.2	564.8	581.2
57.5°	446.9	454.8	482.8	508.2	525.1
60°	394.0	404.0	425.7	451.6	471.2
62.5°	343.2	353.8	372.3	395.0	417.3
65°	294.0	302.0	319.9	342.7	362.3
67.5°	246.4	253.3	271.3	287.2	307.8
70°	198.3	207.3	220.5	235.9	249.1
72.5°	159.7	163.4	174.5	185.6	199.4
75°	117.9	124.3	133.3	139.6	147.5
77.5°	84.6	88.3	93.6	98.9	106.3
80°	56.6	58.2	62.9	64.0	69.8
82.5°	34.4	35.4	36.5	37.0	39.1
85°	18.5	18.5	18.5	17.5	17.5
87.5°	10.6	10.6	9.0	7.4	5.3
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)