

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: P556748

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-96-EDD-90**

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: P556748
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-35-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

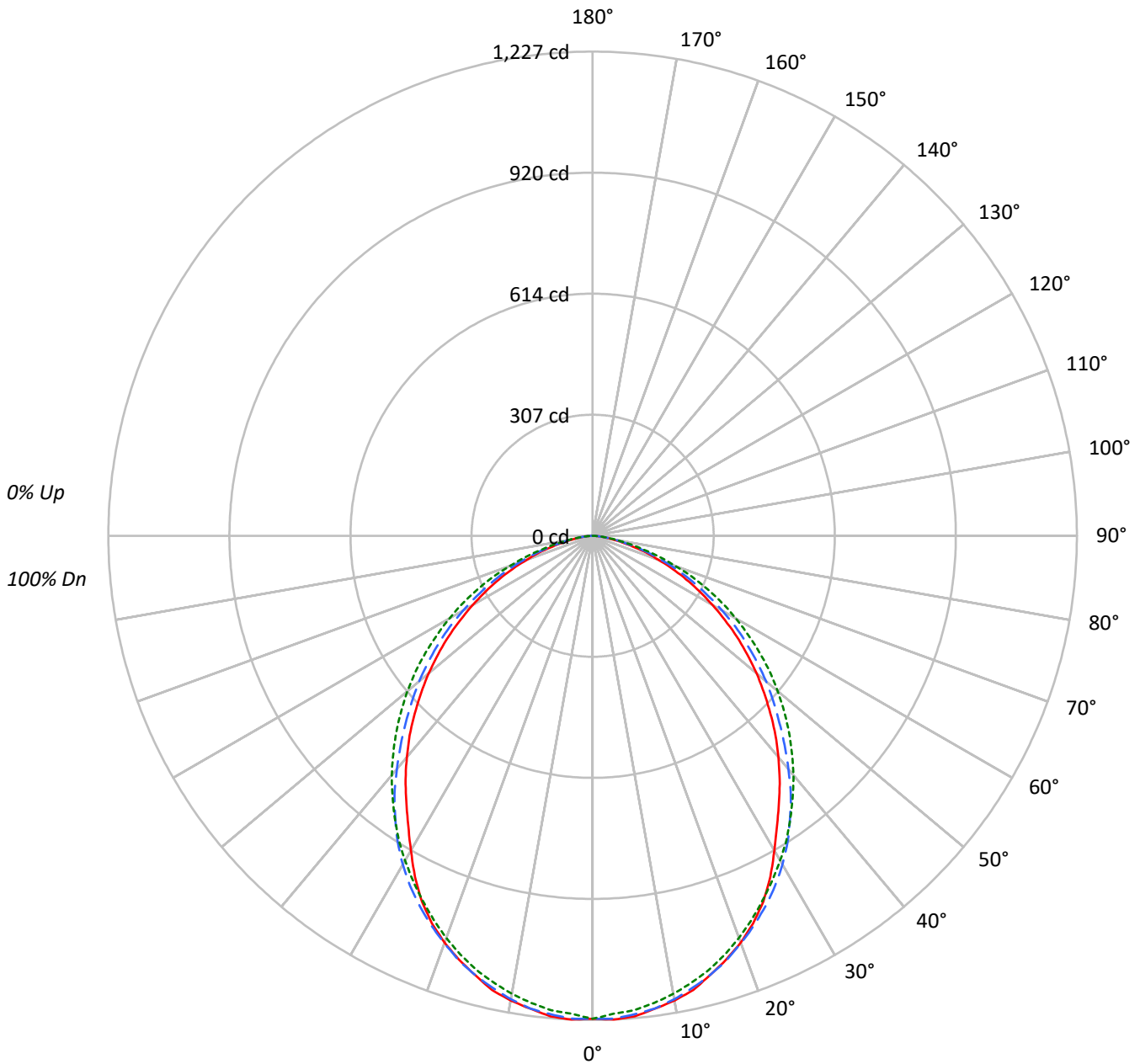
Lumens per Lamp: N/A
Luminaire Lumens: 2830.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P556748

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-96-EDD-90

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°	3293	3293	3293
5°	3302	3288	3260
10°	3267	3258	3221
15°	3209	3209	3173
20°	3141	3145	3105
25°	3038	3075	3027
30°	2861	2989	2953
35°	2703	2865	2870
40°	2572	2710	2781
45°	2425	2546	2677
50°	2269	2400	2563
55°	2093	2232	2424
60°	1885	2037	2255
65°	1664	1812	2051
70°	1387	1543	1743
75°	1091	1232	1364
80°	779	868	962
85°	509	509	479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.2	4.1
10°-20°	323.7	11.4
20°-30°	473.1	16.7
30°-40°	537.0	19.0
40°-50°	518.4	18.3
50°-60°	427.6	15.1
60°-70°	284.8	10.1
70°-80°	127.4	4.5
80°-90°	22.8	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°	912.0	32.2
0°-40°	1449.0	51.2
0°-60°	2395.0	84.6
0°-90°	2830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1224	1224	1224	1224	1224	
5°	1222	1222	1217	1211	1207	116
15°	1152	1155	1152	1147	1139	325
25°	1023	1031	1036	1028	1019	469
35°	823	834	872	877	874	516
45°	637	648	669	700	703	492
55°	446	454	476	502	517	398
65°	261	268	284	305	322	259
75°	105	110	118	124	131	115
85°	16	16	16	16	16	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1223.9	1223.9	1223.9	1223.9	1223.9
2.5°	1227.2	1227.7	1224.8	1217.3	1212.6
5°	1222.5	1222.0	1217.3	1210.7	1207.0
7.5°	1208.9	1209.8	1208.4	1199.0	1193.8
10°	1195.7	1196.2	1192.4	1184.9	1178.8
12.5°	1178.8	1178.3	1173.1	1169.4	1159.5
15°	1152.0	1154.8	1152.0	1146.8	1138.8
17.5°	1126.1	1126.1	1128.0	1119.0	1112.9
20°	1097.0	1098.4	1098.4	1091.3	1084.3
22.5°	1063.1	1067.3	1068.7	1061.2	1052.8
25°	1023.1	1031.1	1035.8	1028.3	1019.4
27.5°	974.7	986.9	1001.0	995.4	985.5
30°	920.6	938.5	962.0	957.3	950.3
32.5°	869.4	887.2	919.7	917.8	914.0
35°	822.8	834.1	872.2	876.9	873.6
37.5°	778.6	789.0	824.7	835.5	832.7
40°	732.1	743.4	771.6	790.9	791.8
42.5°	686.0	696.8	719.9	747.6	747.6
45°	637.1	647.9	669.1	699.6	703.4
47.5°	589.1	600.4	621.1	651.7	657.8
50°	542.1	552.5	573.2	602.8	612.2
52.5°	493.2	504.5	524.7	552.0	565.6
55°	446.2	453.7	475.8	502.2	516.7
57.5°	397.3	404.4	429.3	451.9	466.9
60°	350.3	359.2	378.5	401.5	418.9
62.5°	305.2	314.6	331.0	351.2	371.0
65°	261.4	268.5	284.5	304.7	322.1
67.5°	219.1	225.2	241.2	255.3	273.6
70°	176.3	184.3	196.1	209.7	221.5
72.5°	142.0	145.3	155.2	165.0	177.3
75°	104.9	110.5	118.5	124.1	131.2
77.5°	75.2	78.5	83.2	87.9	94.5
80°	50.3	51.7	56.0	56.9	62.1
82.5°	30.6	31.5	32.4	32.9	34.8
85°	16.5	16.5	16.5	15.5	15.5
87.5°	9.4	9.4	8.0	6.6	4.7
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)