

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: P556736

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-84-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: P556736
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

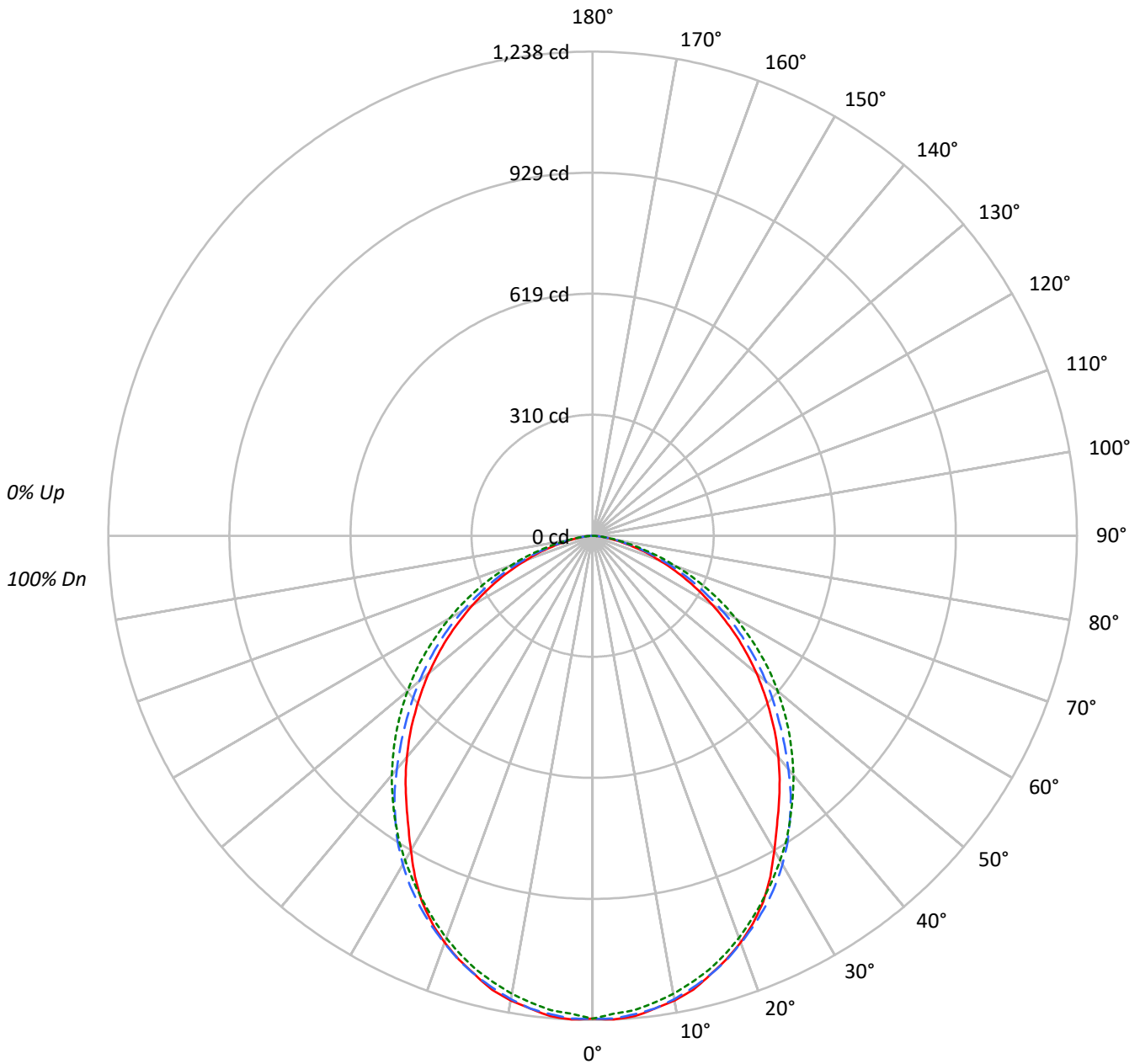
Lumens per Lamp: N/A
Luminaire Lumens: 2855.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556736

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556736

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-84-EDD-90

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°	3323	3323	3323
5°	3331	3317	3289
10°	3296	3287	3249
15°	3238	3238	3201
20°	3169	3173	3132
25°	3065	3103	3053
30°	2886	3016	2979
35°	2727	2891	2895
40°	2595	2734	2806
45°	2446	2569	2700
50°	2290	2421	2586
55°	2112	2252	2446
60°	1902	2055	2274
65°	1679	1827	2069
70°	1400	1556	1758
75°	1100	1242	1376
80°	787	874	970
85°	513	513	485



TEST NUMBER: P556736

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	4.1
10°-20°	326.6	11.4
20°-30°	477.3	16.7
30°-40°	541.7	19.0
40°-50°	522.9	18.3
50°-60°	431.4	15.1
60°-70°	287.3	10.1
70°-80°	128.6	4.5
80°-90°	23.0	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°	920.1	32.2
0°-40°	1461.8	51.2
0°-60°	2416.2	84.6
0°-90°	2855.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2855.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1235	1235	1235	1235	1235	
5°	1233	1233	1228	1221	1218	117
15°	1162	1165	1162	1157	1149	328
25°	1032	1040	1045	1037	1028	473
35°	830	842	880	885	881	520
45°	643	654	675	706	710	496
55°	450	458	480	507	521	402
65°	264	271	287	307	325	261
75°	106	112	120	125	132	116
85°	17	17	17	16	16	22
90°	0	0	0	0	0	



TEST NUMBER: P556736

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1234.7	1234.7	1234.7	1234.7	1234.7
2.5°	1238.0	1238.5	1235.7	1228.1	1223.3
5°	1233.3	1232.8	1228.1	1221.4	1217.6
7.5°	1219.5	1220.5	1219.1	1209.6	1204.4
10°	1206.3	1206.7	1202.9	1195.3	1189.2
12.5°	1189.2	1188.7	1183.5	1179.7	1169.7
15°	1162.1	1165.0	1162.1	1156.9	1148.9
17.5°	1136.1	1136.1	1137.9	1128.9	1122.8
20°	1106.6	1108.1	1108.1	1100.9	1093.8
22.5°	1072.5	1076.8	1078.2	1070.6	1062.1
25°	1032.2	1040.2	1045.0	1037.4	1028.4
27.5°	983.3	995.6	1009.9	1004.2	994.2
30°	928.8	946.8	970.5	965.8	958.6
32.5°	877.1	895.1	927.8	925.9	922.1
35°	830.1	841.5	879.9	884.6	881.3
37.5°	785.5	795.9	832.0	842.9	840.1
40°	738.6	749.9	778.4	797.8	798.8
42.5°	692.1	703.0	726.2	754.2	754.2
45°	642.7	653.6	675.0	705.8	709.6
47.5°	594.4	605.7	626.6	657.4	663.6
50°	546.9	557.4	578.2	608.1	617.6
52.5°	497.6	509.0	529.4	556.9	570.6
55°	450.2	457.7	480.0	506.6	521.3
57.5°	400.8	407.9	433.1	455.8	471.0
60°	353.4	362.4	381.8	405.1	422.6
62.5°	307.8	317.3	333.9	354.3	374.3
65°	263.7	270.8	287.0	307.4	324.9
67.5°	221.0	227.2	243.3	257.6	276.1
70°	177.9	185.9	197.8	211.6	223.4
72.5°	143.3	146.6	156.5	166.5	178.8
75°	105.8	111.5	119.5	125.2	132.3
77.5°	75.9	79.2	84.0	88.7	95.3
80°	50.8	52.2	56.4	57.4	62.6
82.5°	30.8	31.8	32.7	33.2	35.1
85°	16.6	16.6	16.6	15.7	15.7
87.5°	9.5	9.5	8.1	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)