

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: P556513

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-84-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: P556513
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-LD4-1LO-35-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

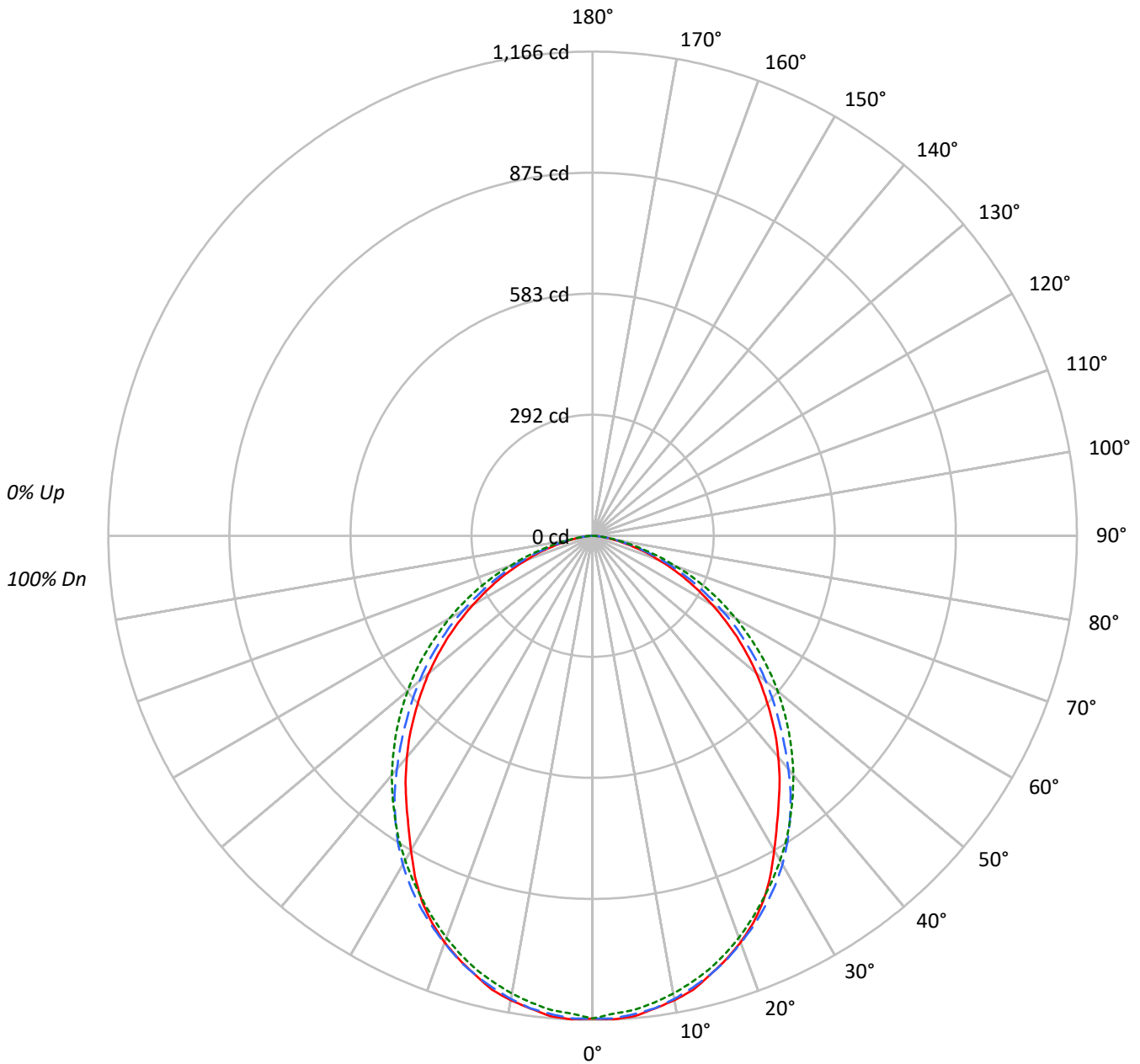
Lumens per Lamp: N/A
Luminaire Lumens: 2688.0 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P556513

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-93-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556513

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-93-84-EDD

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°	3128	3128	3128
5°	3137	3123	3097
10°	3103	3095	3059
15°	3048	3048	3014
20°	2984	2987	2949
25°	2885	2921	2875
30°	2717	2839	2805
35°	2567	2721	2726
40°	2443	2575	2642
45°	2303	2418	2543
50°	2156	2279	2434
55°	1988	2121	2303
60°	1791	1935	2141
65°	1581	1720	1948
70°	1318	1465	1655
75°	1036	1170	1295
80°	741	823	914
85°	482	482	454



TEST NUMBER: P556513

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.5	4.1
10°-20°	307.5	11.4
20°-30°	449.3	16.7
30°-40°	510.0	19.0
40°-50°	492.4	18.3
50°-60°	406.2	15.1
60°-70°	270.5	10.1
70°-80°	121.0	4.5
80°-90°	21.6	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°	866.3	32.2
0°-40°	1376.3	51.2
0°-60°	2274.9	84.6
0°-90°	2688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2688.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1162	1162	1162	1162	1162	
5°	1161	1161	1156	1150	1146	110
15°	1094	1097	1094	1089	1082	308
25°	972	979	984	977	968	445
35°	782	792	828	833	830	490
45°	605	615	636	664	668	467
55°	424	431	452	477	491	378
65°	248	255	270	289	306	246
75°	100	105	112	118	125	109
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



TEST NUMBER: P556513

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1162.5	1162.5	1162.5	1162.5	1162.5
2.5°	1165.6	1166.1	1163.4	1156.2	1151.8
5°	1161.2	1160.7	1156.2	1150.0	1146.4
7.5°	1148.2	1149.1	1147.8	1138.8	1133.9
10°	1135.7	1136.1	1132.6	1125.4	1119.6
12.5°	1119.6	1119.2	1114.3	1110.7	1101.3
15°	1094.2	1096.8	1094.2	1089.2	1081.7
17.5°	1069.6	1069.6	1071.4	1062.9	1057.1
20°	1041.9	1043.2	1043.2	1036.6	1029.9
22.5°	1009.8	1013.8	1015.1	1008.0	999.9
25°	971.8	979.4	983.9	976.7	968.2
27.5°	925.8	937.4	950.8	945.4	936.1
30°	874.4	891.4	913.7	909.3	902.6
32.5°	825.8	842.7	873.5	871.8	868.2
35°	781.5	792.3	828.4	832.9	829.8
37.5°	739.6	749.4	783.3	793.6	790.9
40°	695.4	706.1	732.9	751.2	752.1
42.5°	651.6	661.9	683.7	710.1	710.1
45°	605.1	615.4	635.5	664.5	668.1
47.5°	559.6	570.3	590.0	619.0	624.8
50°	514.9	524.8	544.4	572.5	581.5
52.5°	468.5	479.2	498.4	524.3	537.3
55°	423.8	431.0	452.0	477.0	490.8
57.5°	377.4	384.1	407.7	429.2	443.5
60°	332.7	341.2	359.5	381.4	397.9
62.5°	289.8	298.8	314.4	333.6	352.4
65°	248.3	255.0	270.2	289.4	305.9
67.5°	208.1	213.9	229.1	242.5	259.9
70°	167.5	175.1	186.2	199.2	210.3
72.5°	134.9	138.0	147.4	156.8	168.4
75°	99.6	105.0	112.5	117.9	124.6
77.5°	71.5	74.6	79.0	83.5	89.8
80°	47.8	49.1	53.1	54.0	59.0
82.5°	29.0	29.9	30.8	31.3	33.0
85°	15.6	15.6	15.6	14.7	14.7
87.5°	8.9	8.9	7.6	6.3	4.5
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)