

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: P556740

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-86-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: P556740
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-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

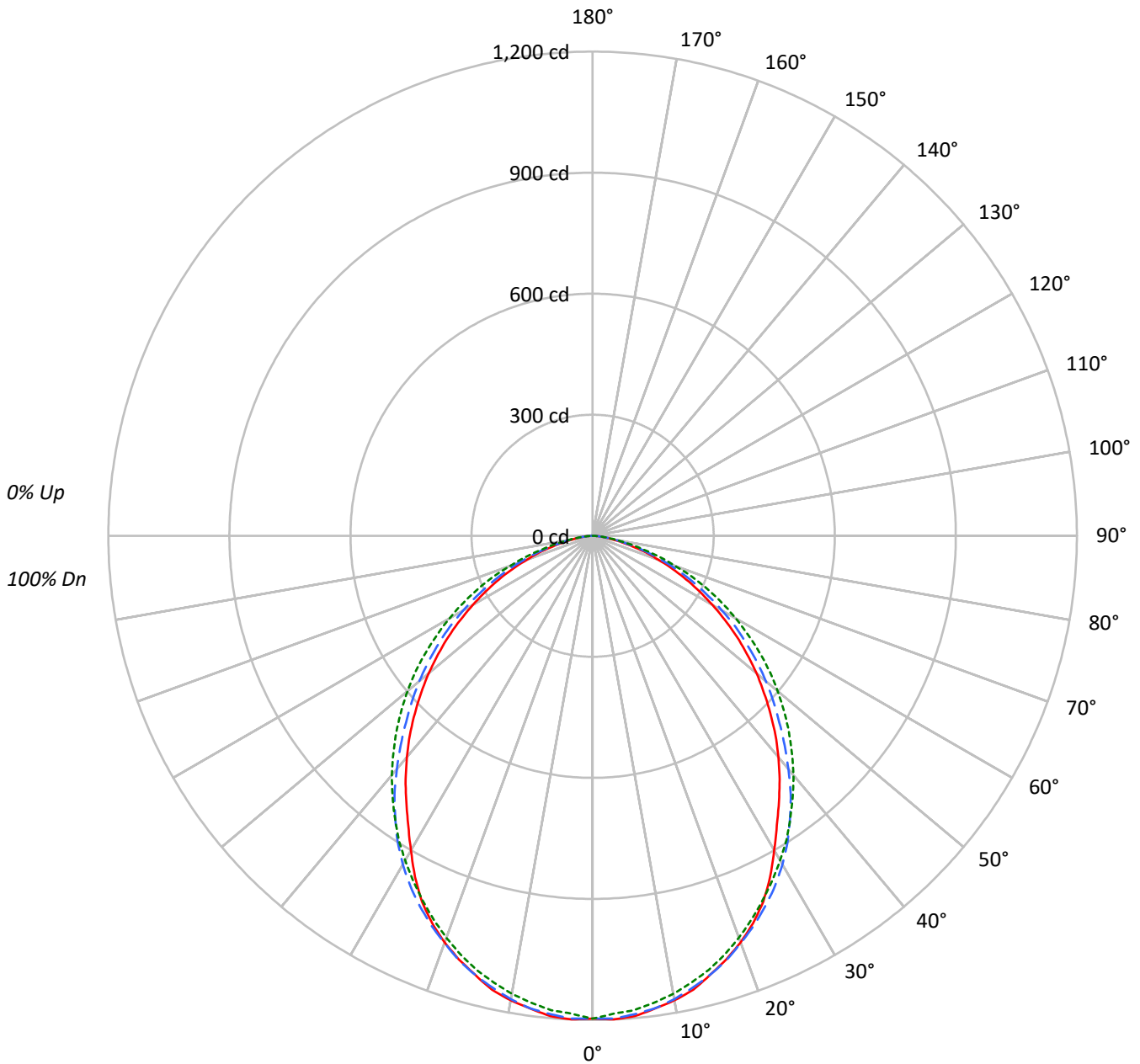
Lumens per Lamp: N/A
Luminaire Lumens: 2767.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556740

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556740

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-86-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°	3220	3220	3220
5°	3229	3215	3188
10°	3195	3186	3149
15°	3138	3138	3102
20°	3071	3075	3036
25°	2970	3007	2959
30°	2797	2923	2887
35°	2643	2802	2806
40°	2514	2650	2720
45°	2371	2490	2617
50°	2219	2346	2506
55°	2047	2183	2370
60°	1843	1992	2204
65°	1628	1771	2005
70°	1356	1508	1703
75°	1066	1204	1334
80°	762	848	941
85°	497	497	469



TEST NUMBER: P556740

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.7	4.1
10°-20°	316.5	11.4
20°-30°	462.5	16.7
30°-40°	525.0	19.0
40°-50°	506.8	18.3
50°-60°	418.1	15.1
60°-70°	278.4	10.1
70°-80°	124.6	4.5
80°-90°	22.3	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°	891.7	32.2
0°-40°	1416.8	51.2
0°-60°	2341.7	84.6
0°-90°	2767.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2767.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1195	1195	1190	1184	1180	113
15°	1126	1129	1126	1121	1113	318
25°	1000	1008	1013	1005	997	458
35°	804	816	853	857	854	504
45°	623	634	654	684	688	481
55°	436	444	465	491	505	389
65°	256	262	278	298	315	253
75°	102	108	116	121	128	112
85°	16	16	16	15	15	22
90°	0	0	0	0	0	



TEST NUMBER: P556740

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1196.7	1196.7	1196.7	1196.7	1196.7
2.5°	1199.9	1200.3	1197.6	1190.2	1185.6
5°	1195.3	1194.8	1190.2	1183.8	1180.1
7.5°	1181.9	1182.9	1181.5	1172.3	1167.2
10°	1169.1	1169.5	1165.9	1158.5	1152.5
12.5°	1152.5	1152.1	1147.0	1143.3	1133.7
15°	1126.3	1129.1	1126.3	1121.3	1113.4
17.5°	1101.0	1101.0	1102.9	1094.1	1088.2
20°	1072.5	1073.9	1073.9	1067.0	1060.1
22.5°	1039.4	1043.6	1044.9	1037.6	1029.3
25°	1000.4	1008.2	1012.8	1005.4	996.7
27.5°	953.0	965.0	978.7	973.2	963.6
30°	900.1	917.6	940.6	936.0	929.1
32.5°	850.0	867.5	899.2	897.4	893.7
35°	804.5	815.5	852.8	857.4	854.2
37.5°	761.3	771.4	806.4	816.9	814.2
40°	715.8	726.8	754.4	773.3	774.2
42.5°	670.7	681.3	703.8	731.0	731.0
45°	622.9	633.5	654.2	684.1	687.7
47.5°	576.0	587.1	607.3	637.2	643.2
50°	530.1	540.2	560.4	589.4	598.6
52.5°	482.2	493.3	513.0	539.7	553.0
55°	436.3	443.6	465.2	491.0	505.2
57.5°	388.5	395.4	419.7	441.8	456.5
60°	342.5	351.2	370.1	392.6	409.6
62.5°	298.4	307.6	323.6	343.4	362.7
65°	255.6	262.5	278.1	297.9	314.9
67.5°	214.2	220.2	235.8	249.6	267.6
70°	172.4	180.2	191.7	205.0	216.5
72.5°	138.8	142.1	151.7	161.4	173.3
75°	102.5	108.0	115.8	121.4	128.3
77.5°	73.6	76.8	81.4	86.0	92.4
80°	49.2	50.6	54.7	55.6	60.7
82.5°	29.9	30.8	31.7	32.2	34.0
85°	16.1	16.1	16.1	15.2	15.2
87.5°	9.2	9.2	7.8	6.4	4.6
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)