

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: P556698

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-82-94-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: P556698
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-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

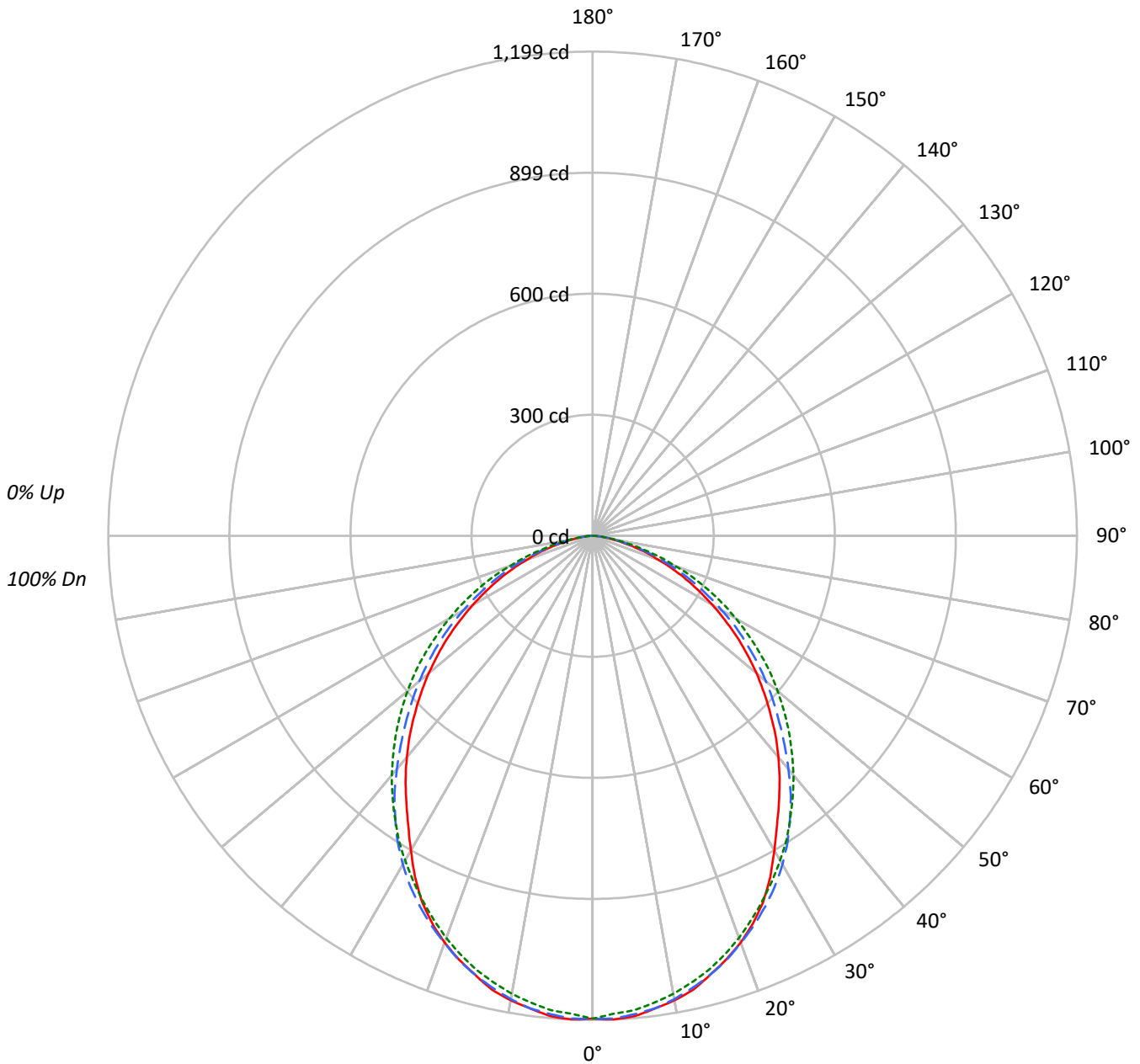
Lumens per Lamp: N/A
Luminaire Lumens: 2765.0 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556698

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-94-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556698

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-94-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	3218	3218	3218
5°	3226	3213	3186
10°	3192	3183	3147
15°	3136	3136	3100
20°	3069	3073	3034
25°	2968	3005	2957
30°	2795	2921	2885
35°	2641	2800	2804
40°	2513	2648	2718
45°	2369	2488	2615
50°	2218	2344	2504
55°	2046	2181	2369
60°	1842	1990	2203
65°	1626	1769	2004
70°	1356	1507	1703
75°	1065	1204	1333
80°	762	848	939
85°	497	497	469



TEST NUMBER: P556698

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.6	4.1
10°-20°	316.3	11.4
20°-30°	462.2	16.7
30°-40°	524.7	19.0
40°-50°	506.5	18.3
50°-60°	417.8	15.1
60°-70°	278.2	10.1
70°-80°	124.5	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°	891.1	32.2
0°-40°	1415.7	51.2
0°-60°	2340.0	84.6
0°-90°	2765.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2765.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1196	1196	1196	1196	1196	
5°	1194	1194	1189	1183	1179	113
15°	1126	1128	1126	1120	1113	317
25°	1000	1007	1012	1005	996	458
35°	804	815	852	857	854	504
45°	622	633	654	684	687	480
55°	436	443	465	491	505	389
65°	255	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: P556698

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-94-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1195.8	1195.8	1195.8	1195.8	1195.8
2.5°	1199.0	1199.5	1196.7	1189.4	1184.8
5°	1194.4	1194.0	1189.4	1182.9	1179.3
7.5°	1181.1	1182.0	1180.6	1171.4	1166.4
10°	1168.2	1168.7	1165.0	1157.7	1151.7
12.5°	1151.7	1151.2	1146.2	1142.5	1132.9
15°	1125.5	1128.3	1125.5	1120.5	1112.6
17.5°	1100.2	1100.2	1102.1	1093.3	1087.4
20°	1071.8	1073.1	1073.1	1066.2	1059.4
22.5°	1038.7	1042.8	1044.2	1036.8	1028.6
25°	999.6	1007.4	1012.0	1004.7	996.0
27.5°	952.3	964.3	978.0	972.5	962.9
30°	899.5	916.9	939.9	935.3	928.4
32.5°	849.4	866.9	898.6	896.7	893.1
35°	803.9	815.0	852.2	856.8	853.5
37.5°	760.7	770.9	805.8	816.3	813.6
40°	715.3	726.3	753.9	772.7	773.6
42.5°	670.2	680.8	703.3	730.4	730.4
45°	622.5	633.0	653.7	683.6	687.2
47.5°	575.6	586.6	606.9	636.7	642.7
50°	529.7	539.8	560.0	588.9	598.1
52.5°	481.9	492.9	512.7	539.3	552.6
55°	436.0	443.3	464.9	490.6	504.9
57.5°	388.2	395.1	419.4	441.5	456.2
60°	342.2	351.0	369.8	392.3	409.3
62.5°	298.1	307.3	323.4	343.2	362.5
65°	255.4	262.3	277.9	297.7	314.7
67.5°	214.1	220.0	235.7	249.4	267.4
70°	172.3	180.1	191.6	204.9	216.4
72.5°	138.7	142.0	151.6	161.2	173.2
75°	102.4	108.0	115.8	121.3	128.2
77.5°	73.5	76.7	81.3	85.9	92.3
80°	49.2	50.5	54.7	55.6	60.6
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)