

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: P558300

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-96-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: P558300
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-LD4-3STD-35-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

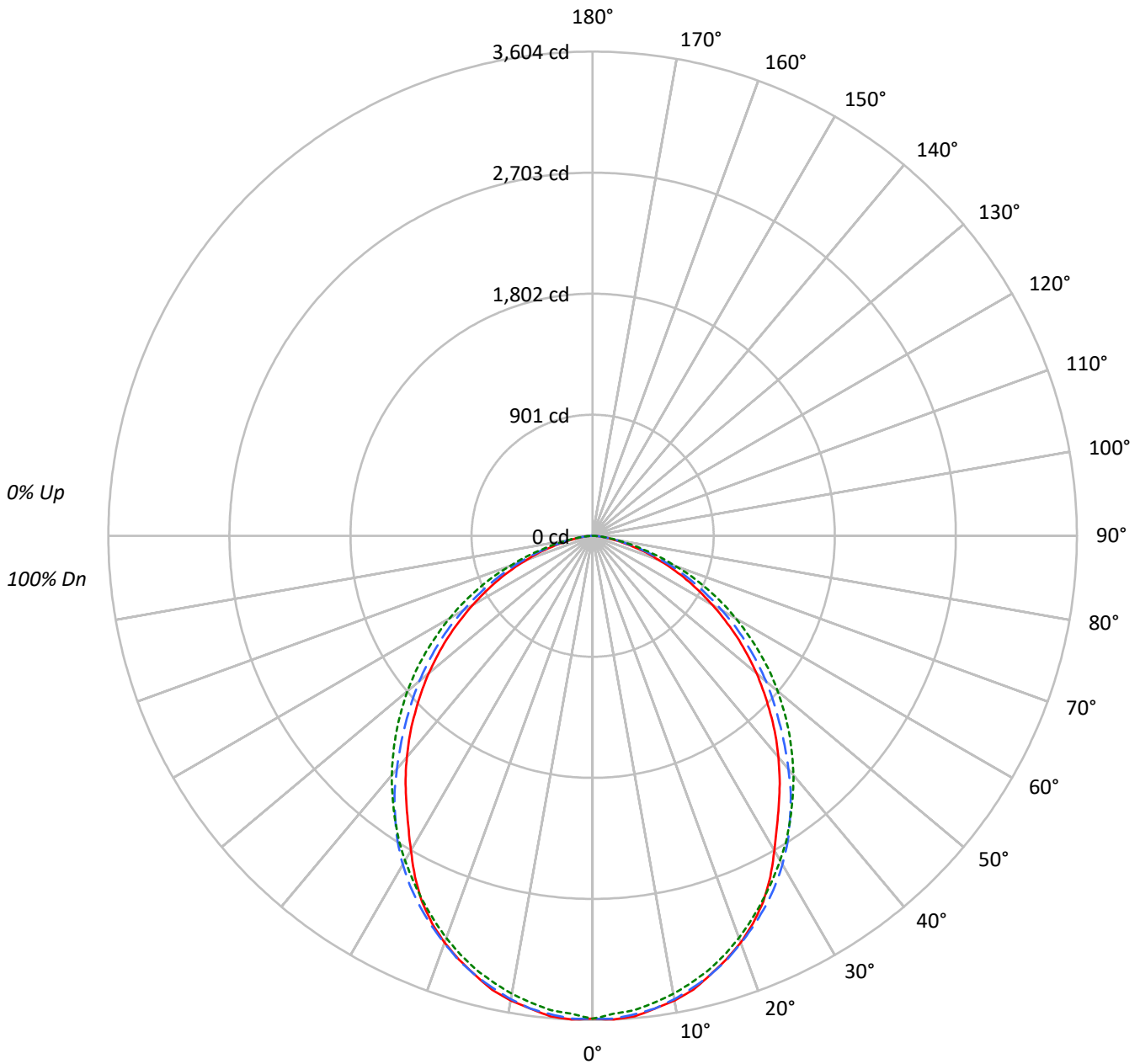
Lumens per Lamp: N/A
Luminaire Lumens: 8312.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P558300

CATALOG NUMBER: FUSL-12-4-LD4-3STD-35-UNV-82-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558300

CATALOG NUMBER: FUSL-12-4-LD4-3STD-35-UNV-82-96-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°	9673	9673	9673
5°	9699	9658	9576
10°	9596	9570	9460
15°	9426	9426	9318
20°	9226	9238	9120
25°	8922	9033	8890
30°	8402	8780	8672
35°	7939	8415	8429
40°	7553	7961	8169
45°	7121	7479	7862
50°	6666	7047	7528
55°	6149	6557	7120
60°	5537	5983	6622
65°	4889	5320	6024
70°	4075	4531	5117
75°	3202	3618	4006
80°	2290	2546	2825
85°	1491	1491	1408



TEST NUMBER: P558300

CATALOG NUMBER: FUSL-12-4-LD4-3STD-35-UNV-82-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.5	4.1
10°-20°	950.8	11.4
20°-30°	1389.5	16.7
30°-40°	1577.2	19.0
40°-50°	1522.5	18.3
50°-60°	1256.0	15.1
60°-70°	836.4	10.1
70°-80°	374.3	4.5
80°-90°	67.0	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°	2678.7	32.2
0°-40°	4255.9	51.2
0°-60°	7034.4	84.6
0°-90°	8312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8312.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3595	3595	3595	3595	3595	
5°	3591	3589	3575	3556	3545	340
15°	3383	3392	3383	3368	3345	954
25°	3005	3028	3042	3020	2994	1376
35°	2417	2450	2562	2576	2566	1514
45°	1871	1903	1965	2055	2066	1444
55°	1311	1333	1398	1475	1518	1170
65°	768	788	836	895	946	761
75°	308	324	348	365	385	337
85°	48	48	48	46	46	65
90°	0	0	0	0	0	



TEST NUMBER: P558300

CATALOG NUMBER: FUSL-12-4-LD4-3STD-35-UNV-82-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3594.7	3594.7	3594.7	3594.7	3594.7
2.5°	3604.4	3605.8	3597.5	3575.4	3561.6
5°	3590.6	3589.2	3575.4	3556.1	3545.0
7.5°	3550.5	3553.3	3549.2	3521.5	3506.3
10°	3511.9	3513.2	3502.2	3480.1	3462.1
12.5°	3462.1	3460.8	3445.6	3434.5	3405.5
15°	3383.4	3391.7	3383.4	3368.2	3344.8
17.5°	3307.5	3307.5	3313.0	3286.8	3268.8
20°	3221.9	3226.0	3226.0	3205.3	3184.6
22.5°	3122.4	3134.9	3139.0	3116.9	3092.0
25°	3005.0	3028.5	3042.3	3020.2	2994.0
27.5°	2862.8	2898.7	2940.1	2923.6	2894.6
30°	2704.0	2756.5	2825.5	2811.7	2791.0
32.5°	2553.5	2605.9	2701.2	2695.7	2684.7
35°	2416.7	2449.9	2561.7	2575.6	2565.9
37.5°	2286.9	2317.3	2422.3	2454.0	2445.7
40°	2150.2	2183.4	2266.2	2322.8	2325.6
42.5°	2014.9	2046.6	2114.3	2195.8	2195.8
45°	1871.2	1903.0	1965.2	2054.9	2066.0
47.5°	1730.4	1763.5	1824.3	1914.1	1932.0
50°	1592.3	1622.7	1683.4	1770.4	1798.1
52.5°	1448.7	1481.8	1541.2	1621.3	1661.3
55°	1310.6	1332.7	1397.6	1474.9	1517.7
57.5°	1166.9	1187.7	1260.8	1327.1	1371.3
60°	1028.8	1055.1	1111.7	1179.4	1230.5
62.5°	896.3	923.9	972.2	1031.6	1089.6
65°	767.8	788.5	835.5	894.9	946.0
67.5°	643.5	661.5	708.4	749.9	803.7
70°	517.9	541.3	575.9	615.9	650.4
72.5°	417.1	426.7	455.7	484.7	520.6
75°	308.0	324.5	348.0	364.6	385.3
77.5°	221.0	230.6	244.4	258.2	277.6
80°	147.8	151.9	164.3	167.1	182.3
82.5°	89.8	92.5	95.3	96.7	102.2
85°	48.3	48.3	48.3	45.6	45.6
87.5°	27.6	27.6	23.5	19.3	13.8
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)