

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: P558217

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-81-88-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: P558217
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-30-UNV-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

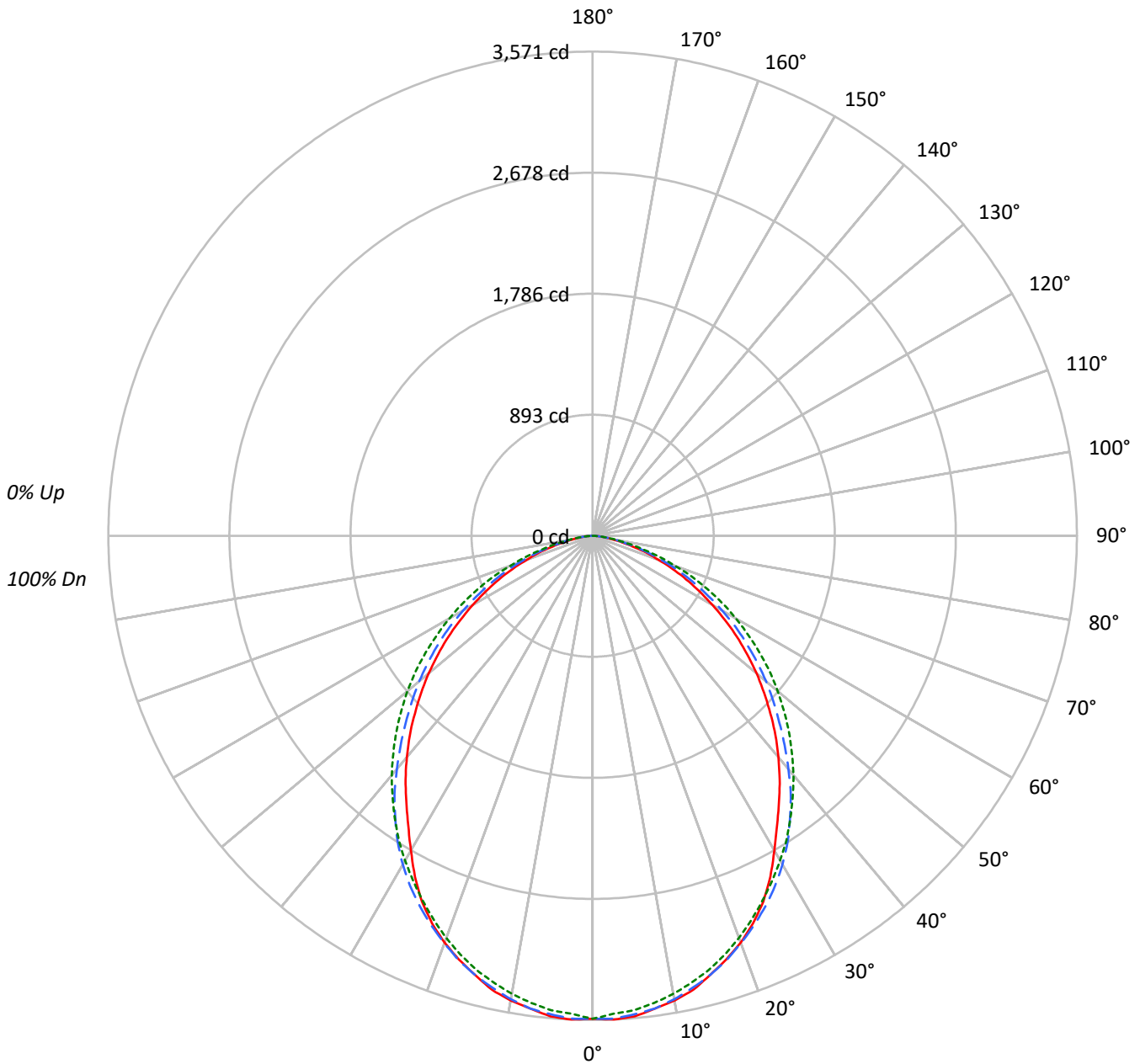
Lumens per Lamp: N/A
Luminaire Lumens: 8236.0 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	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°	9585	9585	9585
5°	9611	9570	9488
10°	9509	9482	9374
15°	9340	9340	9233
20°	9142	9154	9036
25°	8841	8951	8808
30°	8325	8699	8593
35°	7866	8339	8352
40°	7484	7888	8095
45°	7056	7410	7790
50°	6605	6983	7459
55°	6092	6497	7055
60°	5486	5928	6562
65°	4844	5272	5968
70°	4037	4489	5071
75°	3172	3585	3970
80°	2269	2523	2799
85°	1479	1479	1396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.4	4.1
10°-20°	942.1	11.4
20°-30°	1376.7	16.7
30°-40°	1562.8	19.0
40°-50°	1508.6	18.3
50°-60°	1244.5	15.1
60°-70°	828.7	10.1
70°-80°	370.8	4.5
80°-90°	66.4	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°	2654.2	32.2
0°-40°	4217.0	51.2
0°-60°	6970.1	84.6
0°-90°	8236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3562	3562	3562	3562	3562	
5°	3558	3556	3543	3524	3513	337
15°	3352	3361	3352	3337	3314	945
25°	2978	3001	3014	2993	2967	1364
35°	2395	2428	2538	2552	2542	1500
45°	1854	1886	1947	2036	2047	1431
55°	1299	1320	1385	1461	1504	1159
65°	761	781	828	887	937	754
75°	305	322	345	361	382	334
85°	48	48	48	45	45	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3561.9	3561.9	3561.9	3561.9	3561.9
2.5°	3571.4	3572.8	3564.6	3542.7	3529.0
5°	3557.8	3556.4	3542.7	3523.5	3512.6
7.5°	3518.1	3520.8	3516.7	3489.3	3474.3
10°	3479.8	3481.1	3470.2	3448.3	3430.5
12.5°	3430.5	3429.1	3414.1	3403.1	3374.4
15°	3352.5	3360.7	3352.5	3337.4	3314.2
17.5°	3277.2	3277.2	3282.7	3256.7	3238.9
20°	3192.4	3196.5	3196.5	3176.0	3155.5
22.5°	3093.9	3106.2	3110.3	3088.4	3063.8
25°	2977.6	3000.8	3014.5	2992.6	2966.6
27.5°	2836.6	2872.2	2913.3	2896.8	2868.1
30°	2679.3	2731.3	2799.7	2786.0	2765.5
32.5°	2530.1	2582.1	2676.5	2671.1	2660.1
35°	2394.6	2427.5	2538.3	2552.0	2542.4
37.5°	2266.0	2296.1	2400.1	2431.6	2423.4
40°	2130.5	2163.4	2245.5	2301.6	2304.3
42.5°	1996.4	2027.9	2095.0	2175.7	2175.7
45°	1854.1	1885.6	1947.2	2036.1	2047.1
47.5°	1714.6	1747.4	1807.6	1896.6	1914.3
50°	1577.7	1607.8	1668.0	1754.2	1781.6
52.5°	1435.4	1468.3	1527.1	1606.5	1646.1
55°	1298.6	1320.5	1384.8	1461.4	1503.8
57.5°	1156.3	1176.8	1249.3	1315.0	1358.8
60°	1019.4	1045.4	1101.5	1168.6	1219.2
62.5°	888.1	915.4	963.3	1022.2	1079.6
65°	760.8	781.3	827.9	886.7	937.3
67.5°	637.7	655.4	702.0	743.0	796.4
70°	513.1	536.4	570.6	610.3	644.5
72.5°	413.2	422.8	451.6	480.3	515.9
75°	305.1	321.6	344.8	361.2	381.8
77.5°	218.9	228.5	242.2	255.9	275.0
80°	146.4	150.5	162.8	165.6	180.6
82.5°	88.9	91.7	94.4	95.8	101.3
85°	47.9	47.9	47.9	45.2	45.2
87.5°	27.4	27.4	23.3	19.2	13.7
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)