

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: P558183

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-87-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: P558183
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-LD4-3LO-50-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

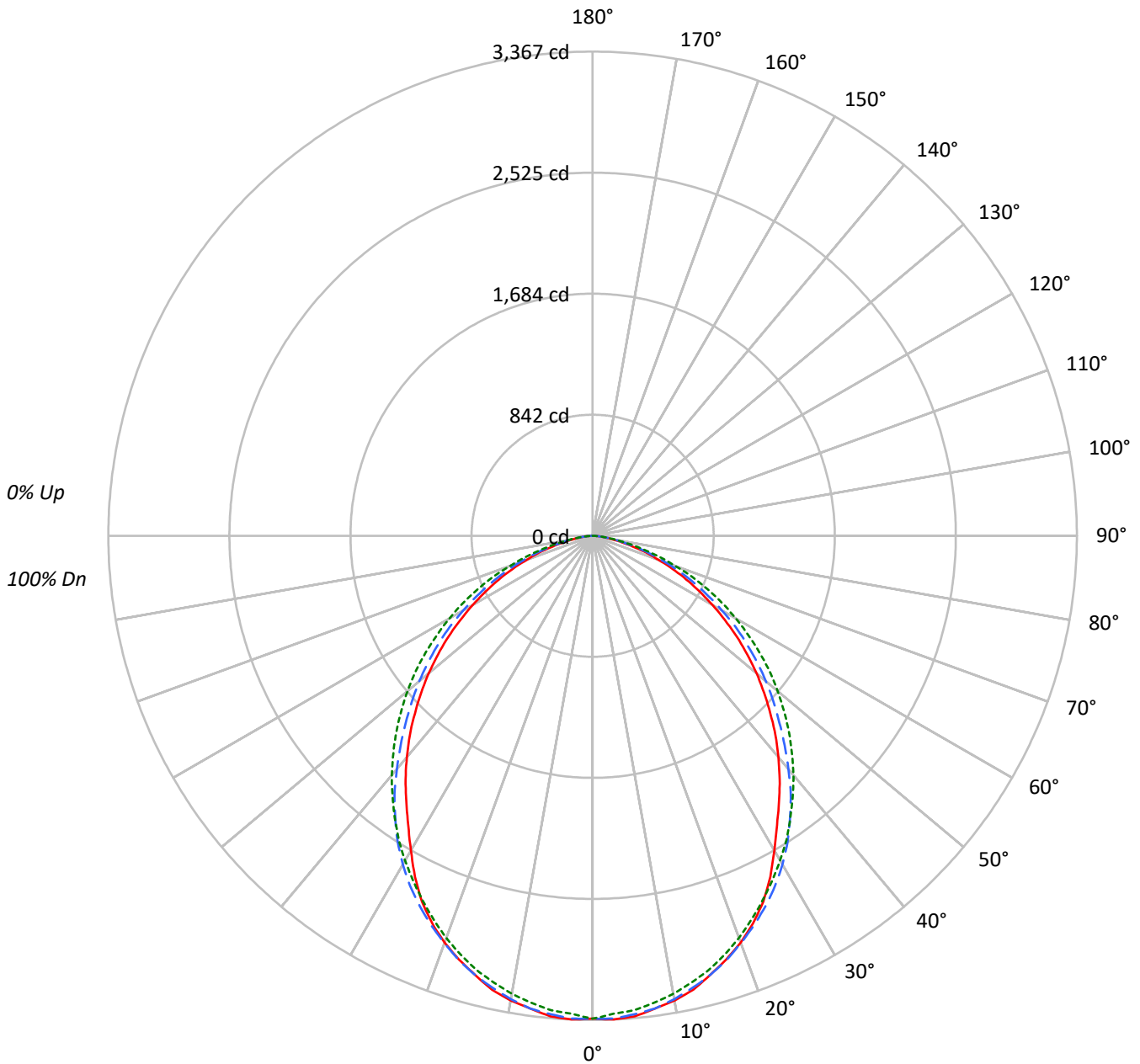
Lumens per Lamp: N/A
Luminaire Lumens: 7765.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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									
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°	9037	9037	9037
5°	9061	9022	8946
10°	8965	8940	8838
15°	8806	8806	8705
20°	8619	8630	8519
25°	8335	8439	8305
30°	7849	8202	8102
35°	7417	7862	7874
40°	7056	7437	7632
45°	6653	6986	7345
50°	6227	6584	7032
55°	5744	6125	6652
60°	5173	5589	6187
65°	4567	4970	5627
70°	3806	4233	4781
75°	2991	3380	3742
80°	2139	2379	2639
85°	1396	1396	1315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.2	4.1
10°-20°	888.2	11.4
20°-30°	1298.0	16.7
30°-40°	1473.4	19.0
40°-50°	1422.3	18.3
50°-60°	1173.3	15.1
60°-70°	781.3	10.1
70°-80°	349.6	4.5
80°-90°	62.6	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°	2502.4	32.2
0°-40°	3975.8	51.2
0°-60°	6571.5	84.6
0°-90°	7765.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7765.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3358	3358	3358	3358	3358	
5°	3354	3353	3340	3322	3312	317
15°	3161	3168	3161	3147	3125	891
25°	2807	2829	2842	2822	2797	1286
35°	2258	2289	2393	2406	2397	1415
45°	1748	1778	1836	1920	1930	1349
55°	1224	1245	1306	1378	1418	1093
65°	717	737	780	836	884	711
75°	288	303	325	341	360	315
85°	45	45	45	43	43	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3358.2	3358.2	3358.2	3358.2	3358.2
2.5°	3367.2	3368.5	3360.7	3340.1	3327.2
5°	3354.3	3353.0	3340.1	3322.0	3311.7
7.5°	3316.9	3319.5	3315.6	3289.8	3275.6
10°	3280.8	3282.0	3271.7	3251.1	3234.3
12.5°	3234.3	3233.0	3218.8	3208.5	3181.4
15°	3160.8	3168.5	3160.8	3146.6	3124.7
17.5°	3089.8	3089.8	3095.0	3070.5	3053.7
20°	3009.8	3013.7	3013.7	2994.4	2975.0
22.5°	2916.9	2928.6	2932.4	2911.8	2888.6
25°	2807.3	2829.2	2842.1	2821.5	2797.0
27.5°	2674.4	2707.9	2746.6	2731.2	2704.1
30°	2526.0	2575.1	2639.6	2626.7	2607.3
32.5°	2385.4	2434.4	2523.5	2518.3	2508.0
35°	2257.7	2288.7	2393.2	2406.1	2397.0
37.5°	2136.4	2164.8	2262.9	2292.5	2284.8
40°	2008.7	2039.7	2117.1	2170.0	2172.5
42.5°	1882.3	1911.9	1975.2	2051.3	2051.3
45°	1748.1	1777.8	1835.8	1919.7	1930.0
47.5°	1616.5	1647.5	1704.2	1788.1	1804.9
50°	1487.5	1515.9	1572.6	1653.9	1679.7
52.5°	1353.3	1384.3	1439.8	1514.6	1552.0
55°	1224.3	1245.0	1305.6	1377.8	1417.8
57.5°	1090.1	1109.5	1177.9	1239.8	1281.1
60°	961.1	985.6	1038.5	1101.8	1149.5
62.5°	837.3	863.1	908.2	963.7	1017.9
65°	717.3	736.7	780.5	836.0	883.7
67.5°	601.2	618.0	661.8	700.5	750.8
70°	483.8	505.7	538.0	575.4	607.6
72.5°	389.6	398.6	425.7	452.8	486.4
75°	287.7	303.2	325.1	340.6	359.9
77.5°	206.4	215.4	228.3	241.3	259.3
80°	138.0	141.9	153.5	156.1	170.3
82.5°	83.9	86.4	89.0	90.3	95.5
85°	45.2	45.2	45.2	42.6	42.6
87.5°	25.8	25.8	21.9	18.1	12.9
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)