

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: P558091

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-81-94-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: P558091
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-40-UNV-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

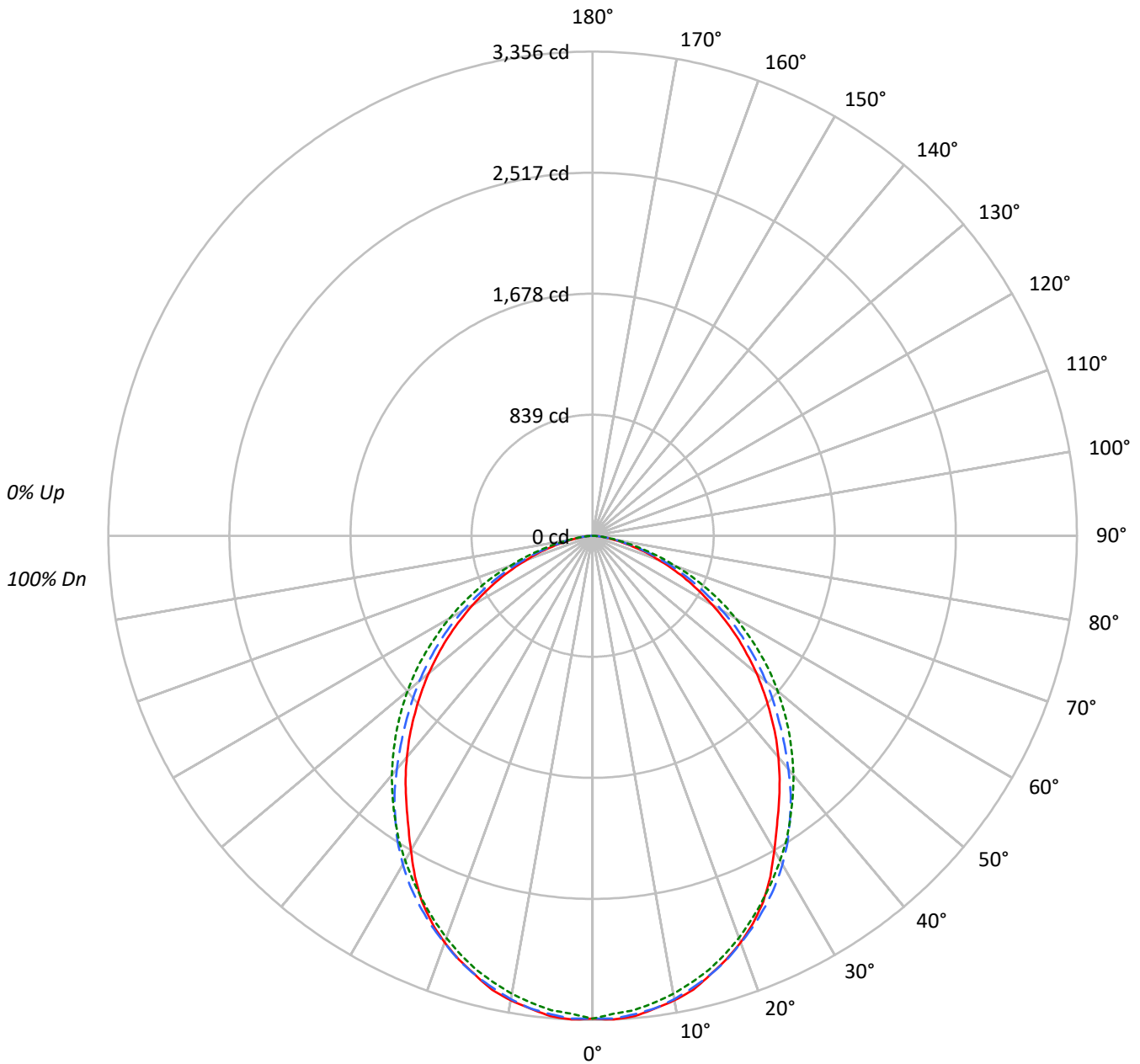
Lumens per Lamp: N/A
Luminaire Lumens: 7739.0 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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

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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°	9006	9006	9006
5°	9031	8992	8916
10°	8935	8910	8808
15°	8776	8776	8676
20°	8590	8601	8491
25°	8307	8410	8277
30°	7823	8174	8075
35°	7392	7835	7848
40°	7033	7412	7606
45°	6630	6963	7320
50°	6206	6562	7008
55°	5725	6105	6630
60°	5155	5571	6166
65°	4552	4953	5608
70°	3794	4219	4765
75°	2981	3369	3729
80°	2132	2371	2630
85°	1389	1389	1309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.1	4.1
10°-20°	885.3	11.4
20°-30°	1293.7	16.7
30°-40°	1468.5	19.0
40°-50°	1417.6	18.3
50°-60°	1169.4	15.1
60°-70°	778.7	10.1
70°-80°	348.5	4.5
80°-90°	62.3	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°	2494.1	32.2
0°-40°	3962.5	51.2
0°-60°	6549.5	84.6
0°-90°	7739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3347	3347	3347	3347	3347	
5°	3343	3342	3329	3311	3301	316
15°	3150	3158	3150	3136	3114	888
25°	2798	2820	2833	2812	2788	1281
35°	2250	2281	2385	2398	2389	1410
45°	1742	1772	1830	1913	1924	1344
55°	1220	1241	1301	1373	1413	1089
65°	715	734	778	833	881	709
75°	287	302	324	339	359	314
85°	45	45	45	42	42	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3346.9	3346.9	3346.9	3346.9	3346.9
2.5°	3355.9	3357.2	3349.5	3328.9	3316.1
5°	3343.1	3341.8	3328.9	3310.9	3300.6
7.5°	3305.8	3308.3	3304.5	3278.8	3264.6
10°	3269.8	3271.1	3260.8	3240.2	3223.5
12.5°	3223.5	3222.2	3208.1	3197.8	3170.8
15°	3150.2	3157.9	3150.2	3136.0	3114.2
17.5°	3079.5	3079.5	3084.6	3060.2	3043.5
20°	2999.8	3003.6	3003.6	2984.3	2965.0
22.5°	2907.2	2918.7	2922.6	2902.0	2878.9
25°	2797.9	2819.7	2832.6	2812.0	2787.6
27.5°	2665.4	2698.9	2737.5	2722.0	2695.0
30°	2517.6	2566.4	2630.7	2617.9	2598.6
32.5°	2377.4	2426.3	2515.0	2509.9	2499.6
35°	2250.1	2281.0	2385.1	2398.0	2389.0
37.5°	2129.3	2157.6	2255.3	2284.9	2277.1
40°	2002.0	2032.8	2110.0	2162.7	2165.3
42.5°	1876.0	1905.5	1968.5	2044.4	2044.4
45°	1742.2	1771.8	1829.7	1913.3	1923.5
47.5°	1611.1	1642.0	1698.5	1782.1	1798.8
50°	1482.5	1510.8	1567.4	1648.4	1674.1
52.5°	1348.8	1379.7	1434.9	1509.5	1546.8
55°	1220.2	1240.8	1301.2	1373.2	1413.1
57.5°	1086.5	1105.8	1173.9	1235.6	1276.8
60°	957.9	982.3	1035.1	1098.1	1145.6
62.5°	834.5	860.2	905.2	960.5	1014.5
65°	714.9	734.2	777.9	833.2	880.8
67.5°	599.2	615.9	659.6	698.2	748.3
70°	482.2	504.0	536.2	573.5	605.6
72.5°	388.3	397.3	424.3	451.3	484.7
75°	286.7	302.2	324.0	339.4	358.7
77.5°	205.7	214.7	227.6	240.4	258.4
80°	137.6	141.4	153.0	155.6	169.7
82.5°	83.6	86.1	88.7	90.0	95.1
85°	45.0	45.0	45.0	42.4	42.4
87.5°	25.7	25.7	21.9	18.0	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)