

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: P558173

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-82-96-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: P558173
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-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

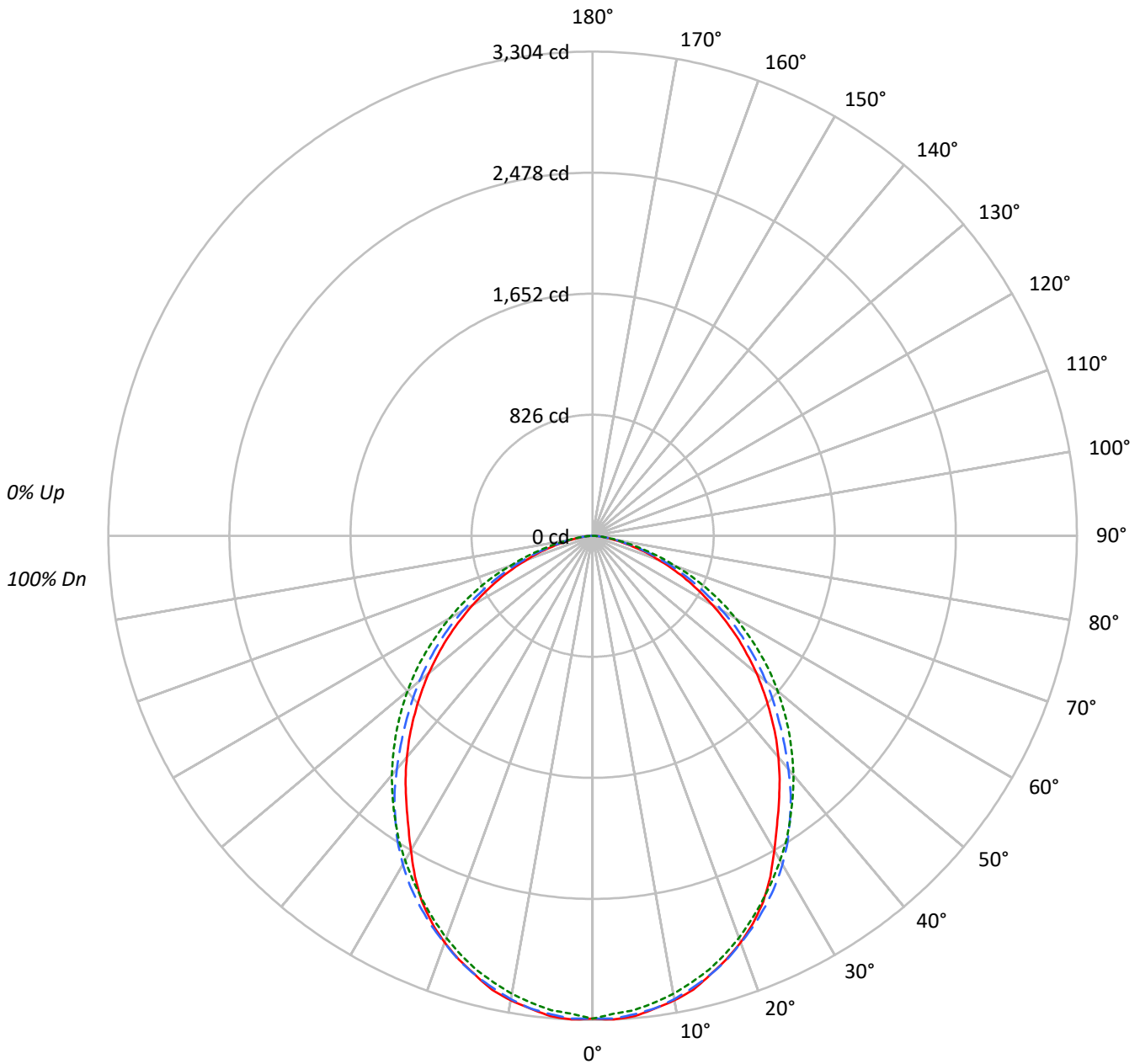
Lumens per Lamp: N/A
Luminaire Lumens: 7619.0 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8867	8867	8867
5°	8890	8853	8777
10°	8796	8772	8672
15°	8640	8640	8541
20°	8457	8468	8359
25°	8179	8280	8149
30°	7701	8048	7949
35°	7277	7714	7727
40°	6923	7297	7488
45°	6527	6855	7207
50°	6110	6460	6900
55°	5636	6010	6527
60°	5076	5484	6070
65°	4481	4876	5521
70°	3735	4153	4691
75°	2935	3317	3672
80°	2098	2334	2590
85°	1368	1368	1291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.2	4.1
10°-20°	871.5	11.4
20°-30°	1273.6	16.7
30°-40°	1445.7	19.0
40°-50°	1395.6	18.3
50°-60°	1151.3	15.1
60°-70°	766.7	10.1
70°-80°	343.1	4.5
80°-90°	61.4	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°	2455.4	32.2
0°-40°	3901.1	51.2
0°-60°	6447.9	84.6
0°-90°	7619.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7619.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3295	3295	3295	3295	3295	
5°	3291	3290	3277	3260	3249	312
15°	3101	3109	3101	3087	3066	874
25°	2754	2776	2789	2768	2744	1261
35°	2215	2246	2348	2361	2352	1388
45°	1715	1744	1801	1884	1894	1323
55°	1201	1222	1281	1352	1391	1072
65°	704	723	766	820	867	698
75°	282	298	319	334	353	309
85°	44	44	44	42	42	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3295.0	3295.0	3295.0	3295.0	3295.0
2.5°	3303.9	3305.1	3297.6	3277.3	3264.6
5°	3291.2	3290.0	3277.3	3259.6	3249.4
7.5°	3254.5	3257.0	3253.2	3227.9	3214.0
10°	3219.1	3220.3	3210.2	3190.0	3173.5
12.5°	3173.5	3172.2	3158.3	3148.2	3121.6
15°	3101.3	3108.9	3101.3	3087.4	3065.9
17.5°	3031.7	3031.7	3036.8	3012.7	2996.3
20°	2953.2	2957.0	2957.0	2938.0	2919.1
22.5°	2862.1	2873.5	2877.3	2857.0	2834.2
25°	2754.5	2776.0	2788.7	2768.4	2744.4
27.5°	2624.1	2657.0	2695.0	2679.8	2653.2
30°	2478.5	2526.6	2589.9	2577.3	2558.3
32.5°	2340.6	2388.7	2476.0	2470.9	2460.8
35°	2215.2	2245.6	2348.2	2360.8	2352.0
37.5°	2096.3	2124.1	2220.3	2249.4	2241.8
40°	1970.9	2001.3	2077.3	2129.2	2131.7
42.5°	1846.9	1876.0	1938.0	2012.7	2012.7
45°	1715.2	1744.3	1801.3	1883.6	1893.7
47.5°	1586.1	1616.5	1672.2	1754.5	1770.9
50°	1459.5	1487.4	1543.1	1622.8	1648.1
52.5°	1327.9	1358.3	1412.7	1486.1	1522.8
55°	1201.3	1221.6	1281.0	1351.9	1391.2
57.5°	1069.6	1088.6	1155.7	1216.5	1257.0
60°	943.1	967.1	1019.0	1081.0	1127.9
62.5°	821.5	846.9	891.2	945.6	998.8
65°	703.8	722.8	765.8	820.3	867.1
67.5°	589.9	606.3	649.4	687.4	736.7
70°	474.7	496.2	527.9	564.6	596.2
72.5°	382.3	391.1	417.7	444.3	477.2
75°	282.3	297.5	319.0	334.2	353.2
77.5°	202.5	211.4	224.1	236.7	254.4
80°	135.4	139.2	150.6	153.2	167.1
82.5°	82.3	84.8	87.3	88.6	93.7
85°	44.3	44.3	44.3	41.8	41.8
87.5°	25.3	25.3	21.5	17.7	12.7
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)