

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: P557883

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-80-94-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: P557883  
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-LD4-3HI-50-UNV-80-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

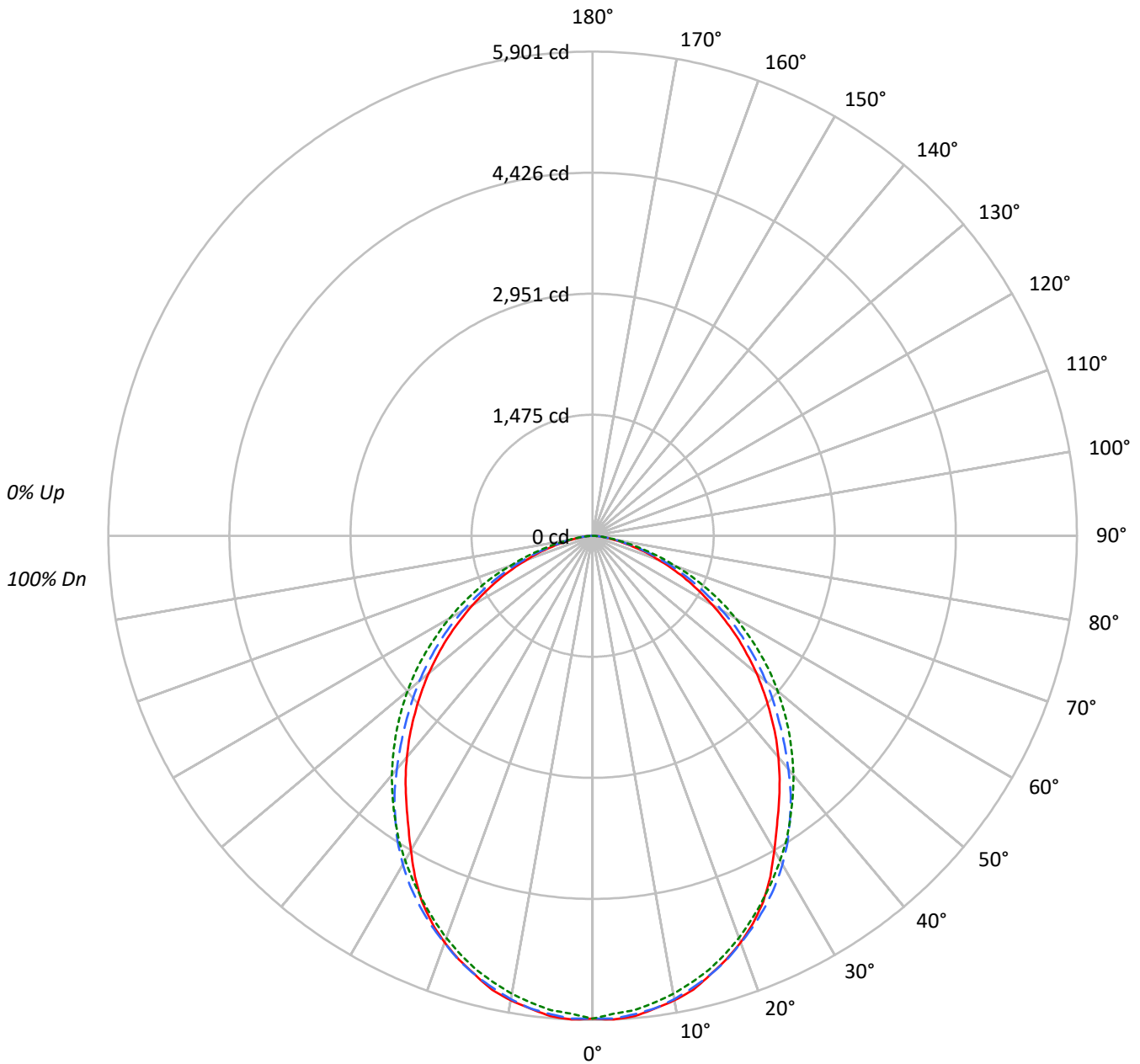
Lumens per Lamp: N/A  
Luminaire Lumens: 13608.0 lumens  
Efficiency: N/A  
Efficacy: 105.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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°	15837	15837	15837
5°	15879	15812	15677
10°	15710	15667	15488
15°	15432	15432	15255
20°	15105	15124	14930
25°	14607	14789	14554
30°	13755	14374	14198
35°	12998	13778	13800
40°	12366	13033	13374
45°	11659	12244	12872
50°	10913	11538	12324
55°	10066	10734	11657
60°	9065	9795	10842
65°	8004	8709	9861
70°	6670	7418	8379
75°	5242	5923	6559
80°	3749	4169	4624
85°	2442	2442	2303



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	554.1	4.1
10°-20°	1556.6	11.4
20°-30°	2274.7	16.7
30°-40°	2582.1	19.0
40°-50°	2492.6	18.3
50°-60°	2056.2	15.1
60°-70°	1369.3	10.1
70°-80°	612.7	4.5
80°-90°	109.6	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°	4385.5	32.2
0°-40°	6967.5	51.2
0°-60°	11516.4	84.6
0°-90°	13608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13608.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5885	5885	5885	5885	5885	
5°	5878	5876	5854	5822	5804	556
15°	5539	5553	5539	5514	5476	1562
25°	4920	4958	4981	4945	4902	2253
35°	3957	4011	4194	4217	4201	2479
45°	3064	3116	3217	3364	3382	2364
55°	2146	2182	2288	2415	2485	1915
65°	1257	1291	1368	1465	1549	1246
75°	504	531	570	597	631	551
85°	79	79	79	75	75	107
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5885.1	5885.1	5885.1	5885.1	5885.1
2.5°	5900.9	5903.2	5889.6	5853.5	5830.8
5°	5878.3	5876.1	5853.5	5821.8	5803.7
7.5°	5812.8	5817.3	5810.5	5765.3	5740.4
10°	5749.5	5751.7	5733.6	5697.5	5668.1
12.5°	5668.1	5665.8	5640.9	5622.8	5575.4
15°	5539.2	5552.8	5539.2	5514.3	5475.9
17.5°	5414.8	5414.8	5423.9	5380.9	5351.5
20°	5274.7	5281.4	5281.4	5247.5	5213.6
22.5°	5111.9	5132.2	5139.0	5102.8	5062.1
25°	4919.7	4958.1	4980.8	4944.6	4901.6
27.5°	4686.8	4745.6	4813.4	4786.3	4738.8
30°	4426.8	4512.7	4625.8	4603.2	4569.3
32.5°	4180.4	4266.3	4422.3	4413.3	4395.2
35°	3956.6	4010.8	4194.0	4216.6	4200.7
37.5°	3744.0	3793.8	3965.6	4017.6	4004.0
40°	3520.2	3574.5	3710.1	3802.8	3807.3
42.5°	3298.6	3350.6	3461.4	3594.8	3594.8
45°	3063.5	3115.5	3217.3	3364.2	3382.3
47.5°	2832.9	2887.2	2986.6	3133.6	3163.0
50°	2606.8	2656.6	2756.0	2898.5	2943.7
52.5°	2371.7	2425.9	2523.2	2654.3	2719.9
55°	2145.6	2181.8	2288.0	2414.6	2484.7
57.5°	1910.5	1944.4	2064.2	2172.7	2245.1
60°	1684.4	1727.3	1820.0	1930.8	2014.5
62.5°	1467.3	1512.5	1591.7	1688.9	1783.8
65°	1257.1	1291.0	1367.8	1465.1	1548.7
67.5°	1053.6	1083.0	1159.8	1227.7	1315.8
70°	847.8	886.3	942.8	1008.4	1064.9
72.5°	682.8	698.6	746.1	793.6	852.4
75°	504.2	531.3	569.7	596.9	630.8
77.5°	361.7	377.6	400.2	422.8	454.4
80°	241.9	248.7	269.0	273.6	298.4
82.5°	147.0	151.5	156.0	158.3	167.3
85°	79.1	79.1	79.1	74.6	74.6
87.5°	45.2	45.2	38.4	31.7	22.6
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)