

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: P557881

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-80-88-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: P557881  
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-80-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

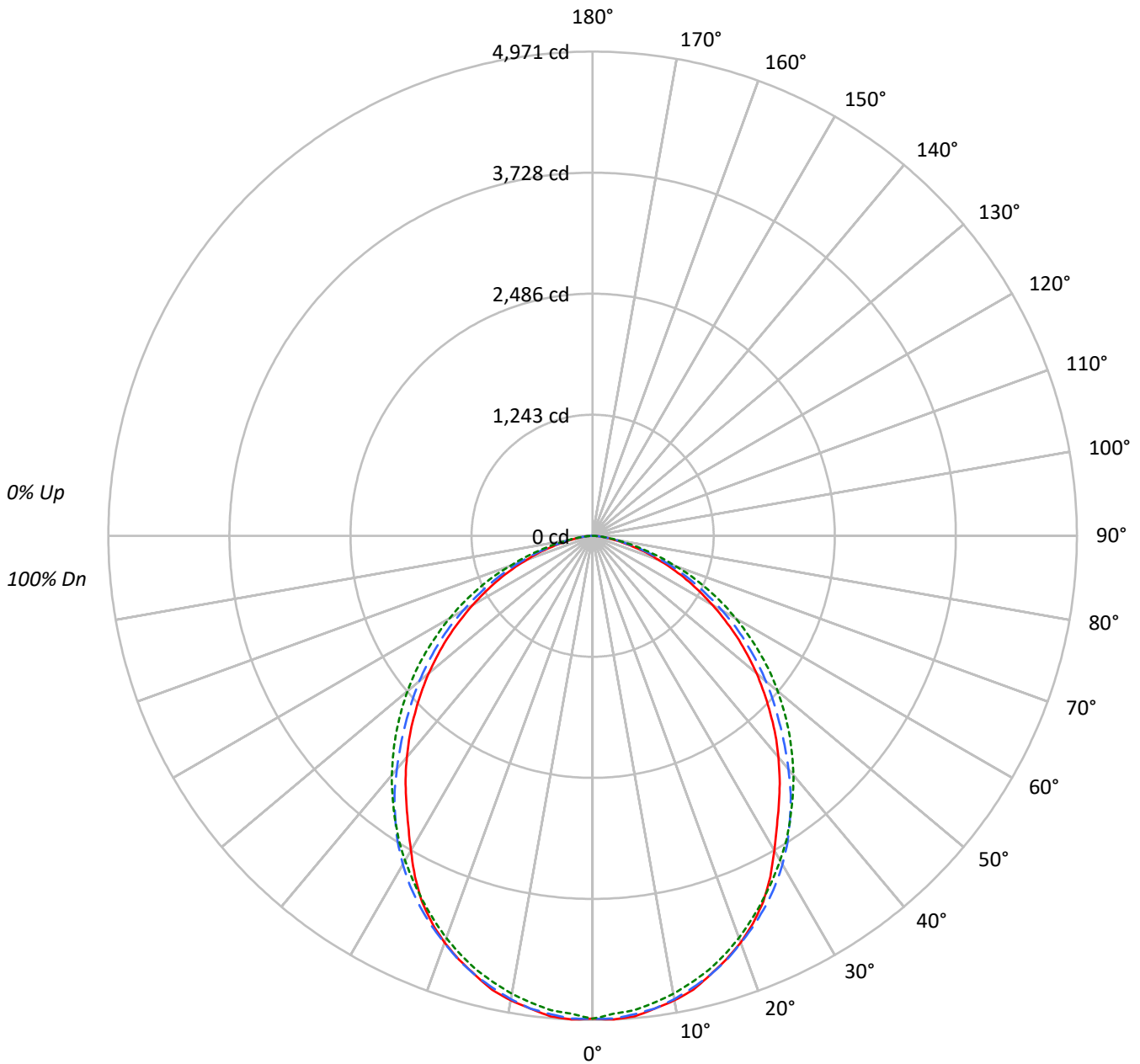
Lumens per Lamp: N/A  
Luminaire Lumens: 11464.0 lumens  
Efficiency: N/A  
Efficacy: 88.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	13342	13342	13342
5°	13377	13320	13207
10°	13235	13199	13048
15°	13000	13000	12852
20°	12725	12741	12578
25°	12306	12459	12261
30°	11588	12109	11961
35°	10950	11607	11626
40°	10418	10980	11267
45°	9822	10315	10844
50°	9194	9720	10382
55°	8480	9043	9820
60°	7637	8252	9134
65°	6743	7337	8308
70°	5620	6249	7058
75°	4416	4991	5525
80°	3158	3513	3896
85°	2059	2059	1942



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	466.8	4.1
10°-20°	1311.4	11.4
20°-30°	1916.3	16.7
30°-40°	2175.3	19.0
40°-50°	2099.9	18.3
50°-60°	1732.2	15.1
60°-70°	1153.5	10.1
70°-80°	516.2	4.5
80°-90°	92.4	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°	3694.5	32.2
0°-40°	5869.8	51.2
0°-60°	9701.9	84.6
0°-90°	11464.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11464.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4958	4958	4958	4958	4958	
5°	4952	4950	4931	4905	4889	469
15°	4666	4678	4666	4646	4613	1316
25°	4145	4177	4196	4166	4129	1898
35°	3333	3379	3533	3552	3539	2088
45°	2581	2625	2710	2834	2849	1991
55°	1808	1838	1928	2034	2093	1613
65°	1059	1088	1152	1234	1305	1050
75°	425	448	480	503	531	464
85°	67	67	67	63	63	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4957.9	4957.9	4957.9	4957.9	4957.9
2.5°	4971.2	4973.1	4961.7	4931.2	4912.2
5°	4952.2	4950.3	4931.2	4904.6	4889.3
7.5°	4896.9	4900.7	4895.0	4856.9	4836.0
10°	4843.6	4845.5	4830.3	4799.8	4775.0
12.5°	4775.0	4773.1	4752.2	4736.9	4696.9
15°	4666.5	4677.9	4666.5	4645.5	4613.1
17.5°	4561.7	4561.7	4569.3	4533.1	4508.4
20°	4443.6	4449.3	4449.3	4420.8	4392.2
22.5°	4306.5	4323.6	4329.3	4298.9	4264.6
25°	4144.6	4177.0	4196.0	4165.5	4129.3
27.5°	3948.4	3997.9	4055.1	4032.2	3992.2
30°	3729.4	3801.7	3897.0	3877.9	3849.4
32.5°	3521.8	3594.1	3725.6	3717.9	3702.7
35°	3333.2	3378.9	3533.2	3552.2	3538.9
37.5°	3154.2	3196.1	3340.8	3384.6	3373.2
40°	2965.6	3011.3	3125.6	3203.7	3207.5
42.5°	2778.9	2822.7	2916.1	3028.4	3028.4
45°	2580.8	2624.7	2710.4	2834.2	2849.4
47.5°	2386.6	2432.3	2516.1	2639.9	2664.6
50°	2196.1	2238.0	2321.8	2441.8	2479.9
52.5°	1998.0	2043.7	2125.6	2236.1	2291.3
55°	1807.5	1838.0	1927.5	2034.2	2093.2
57.5°	1609.5	1638.0	1739.0	1830.4	1891.3
60°	1419.0	1455.2	1533.3	1626.6	1697.1
62.5°	1236.1	1274.2	1340.9	1422.8	1502.8
65°	1059.0	1087.6	1152.3	1234.2	1304.7
67.5°	887.6	912.3	977.1	1034.2	1108.5
70°	714.3	746.6	794.3	849.5	897.1
72.5°	575.2	588.5	628.5	668.5	718.1
75°	424.7	447.6	480.0	502.8	531.4
77.5°	304.7	318.1	337.1	356.2	382.8
80°	203.8	209.5	226.7	230.5	251.4
82.5°	123.8	127.6	131.4	133.3	140.9
85°	66.7	66.7	66.7	62.9	62.9
87.5°	38.1	38.1	32.4	26.7	19.0
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)