

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: P557875

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-80-85-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: P557875  
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-80-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

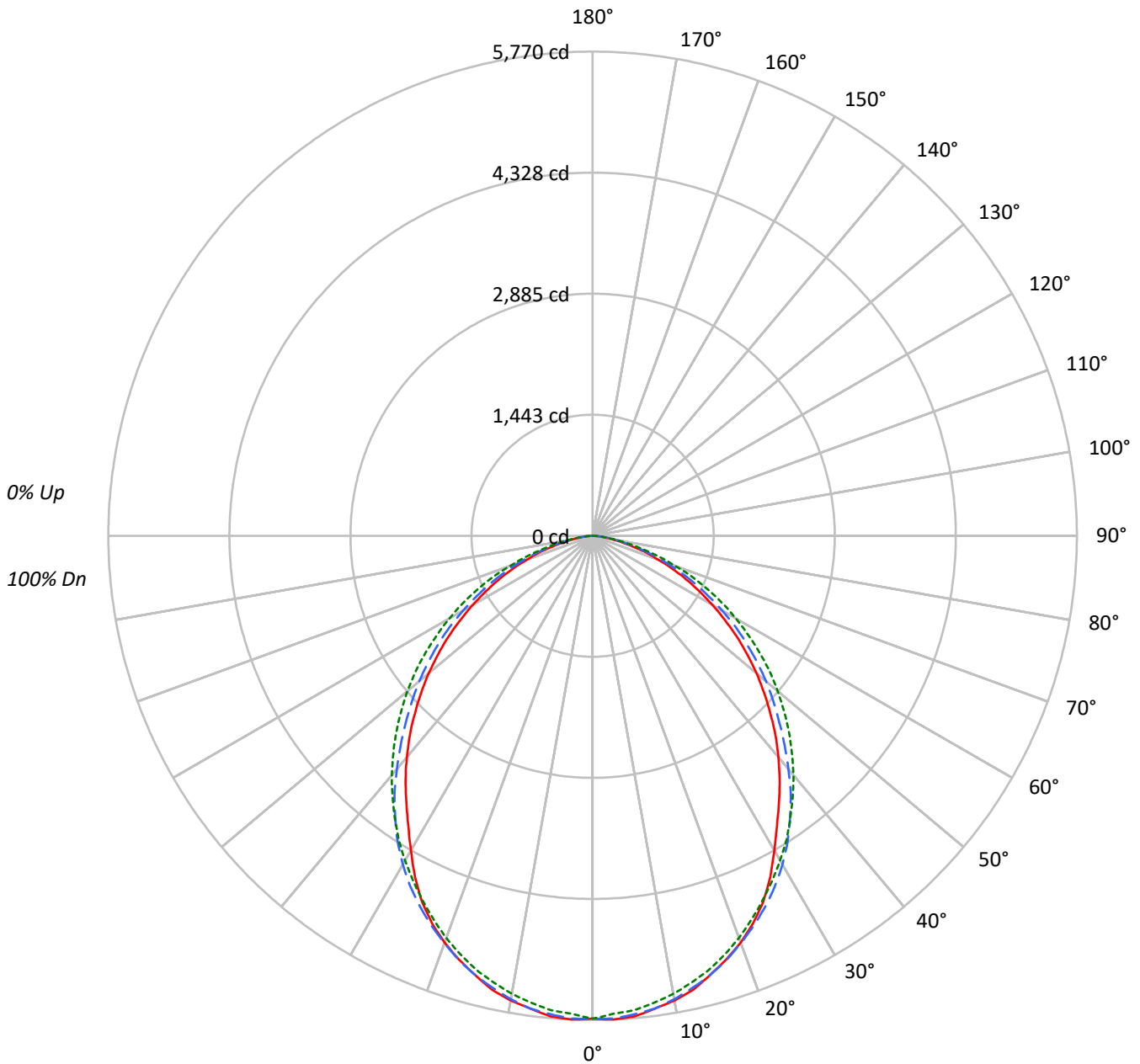
Lumens per Lamp: N/A  
Luminaire Lumens: 13307.0 lumens  
Efficiency: N/A  
Efficacy: 102.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	15486	15486	15486
5°	15528	15462	15330
10°	15363	15321	15145
15°	15090	15090	14918
20°	14771	14790	14600
25°	14284	14462	14232
30°	13451	14056	13884
35°	12710	13473	13494
40°	12092	12745	13079
45°	11400	11973	12587
50°	10672	11283	12051
55°	9843	10497	11400
60°	8865	9579	10602
65°	7827	8517	9643
70°	6523	7253	8193
75°	5126	5792	6413
80°	3667	4077	4522
85°	2390	2390	2254



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	541.8	4.1
10°-20°	1522.2	11.4
20°-30°	2224.4	16.7
30°-40°	2525.0	19.0
40°-50°	2437.5	18.3
50°-60°	2010.7	15.1
60°-70°	1339.0	10.1
70°-80°	599.2	4.5
80°-90°	107.2	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°	4288.5	32.2
0°-40°	6813.4	51.2
0°-60°	11261.6	84.6
0°-90°	13307.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13307.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5755	5755	5755	5755	5755	
5°	5748	5746	5724	5693	5675	544
15°	5417	5430	5417	5392	5355	1527
25°	4811	4848	4871	4835	4793	2203
35°	3869	3922	4101	4123	4108	2424
45°	2996	3047	3146	3290	3308	2311
55°	2098	2134	2237	2361	2430	1873
65°	1229	1262	1338	1433	1514	1219
75°	493	520	557	584	617	539
85°	77	77	77	73	73	104
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5754.9	5754.9	5754.9	5754.9	5754.9
2.5°	5770.4	5772.6	5759.4	5724.0	5701.9
5°	5748.3	5746.1	5724.0	5693.0	5675.3
7.5°	5684.2	5688.6	5682.0	5637.8	5613.4
10°	5622.3	5624.5	5606.8	5571.4	5542.7
12.5°	5542.7	5540.5	5516.2	5498.5	5452.0
15°	5416.7	5429.9	5416.7	5392.3	5354.8
17.5°	5295.1	5295.1	5303.9	5261.9	5233.2
20°	5158.0	5164.6	5164.6	5131.5	5098.3
22.5°	4998.8	5018.7	5025.3	4990.0	4950.2
25°	4810.9	4848.5	4870.6	4835.2	4793.2
27.5°	4583.2	4640.6	4707.0	4680.4	4634.0
30°	4328.9	4412.9	4523.5	4501.4	4468.2
32.5°	4087.9	4171.9	4324.5	4315.6	4298.0
35°	3869.0	3922.1	4101.2	4123.3	4107.8
37.5°	3661.2	3709.9	3877.9	3928.7	3915.5
40°	3442.3	3495.4	3628.1	3718.7	3723.1
42.5°	3225.7	3276.5	3384.9	3515.3	3515.3
45°	2995.7	3046.6	3146.1	3289.8	3307.5
47.5°	2770.2	2823.3	2920.6	3064.3	3093.0
50°	2549.2	2597.8	2695.1	2834.4	2878.6
52.5°	2319.2	2372.3	2467.3	2595.6	2659.7
55°	2098.1	2133.5	2237.4	2361.2	2429.8
57.5°	1868.2	1901.4	2018.5	2124.7	2195.4
60°	1647.1	1689.1	1779.8	1888.1	1969.9
62.5°	1434.9	1479.1	1556.5	1651.5	1744.4
65°	1229.3	1262.4	1337.6	1432.7	1514.5
67.5°	1030.3	1059.0	1134.2	1200.5	1286.7
70°	829.1	866.7	921.9	986.1	1041.3
72.5°	667.7	683.2	729.6	776.0	833.5
75°	493.0	519.6	557.1	583.7	616.8
77.5°	353.7	369.2	391.3	413.4	444.4
80°	236.6	243.2	263.1	267.5	291.8
82.5°	143.7	148.1	152.6	154.8	163.6
85°	77.4	77.4	77.4	73.0	73.0
87.5°	44.2	44.2	37.6	31.0	22.1
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)