

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: P556792

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-88-EDD-90**

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: P556792  
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-LD4-1STD-40-UNV-80-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

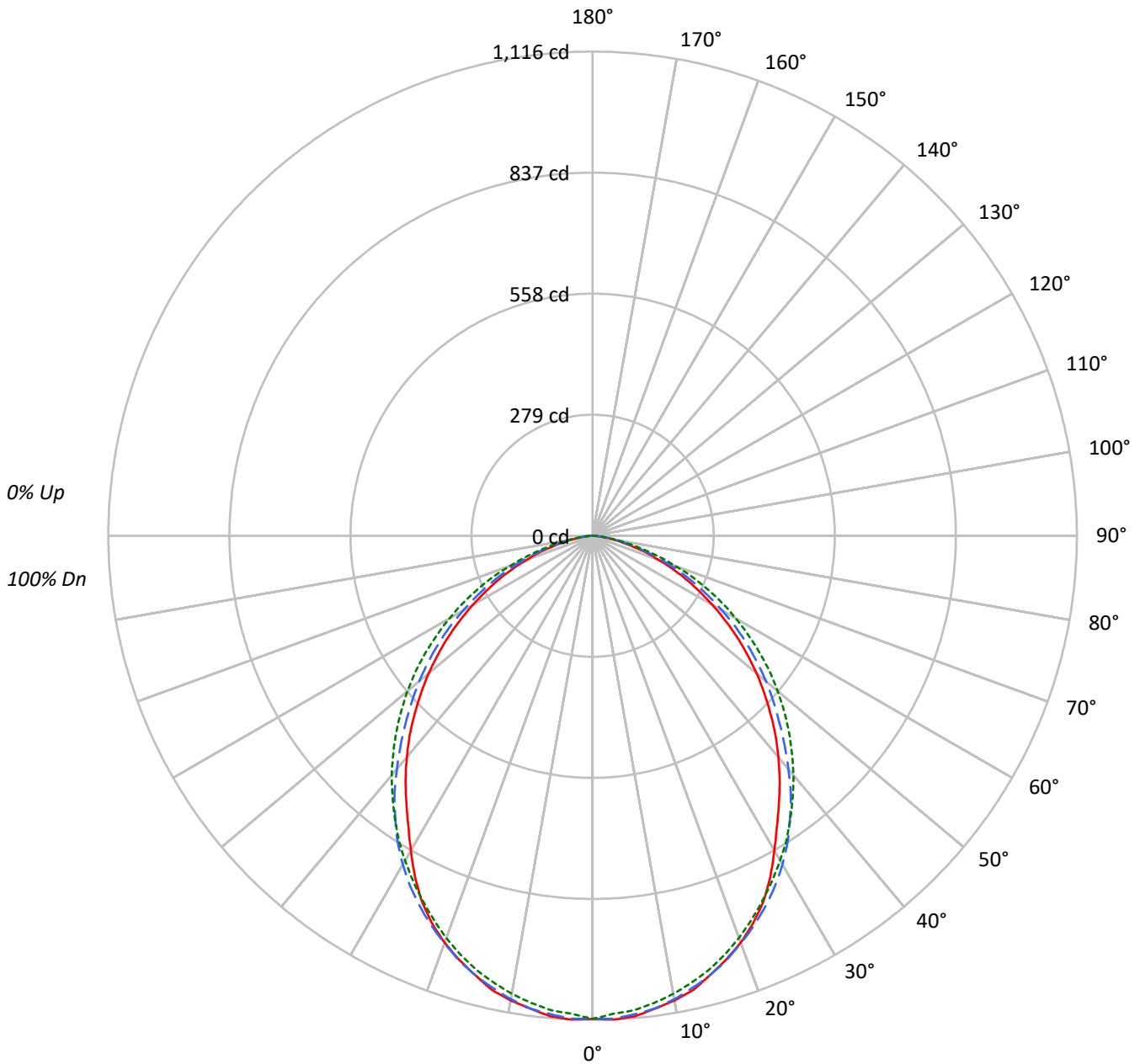
Lumens per Lamp: N/A  
Luminaire Lumens: 2574.0 lumens  
Efficiency: N/A  
Efficacy: 77.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2996	2996	2996
5°	3004	2991	2965
10°	2972	2963	2930
15°	2919	2919	2886
20°	2857	2861	2824
25°	2763	2797	2753
30°	2602	2719	2686
35°	2459	2606	2610
40°	2339	2465	2530
45°	2205	2316	2435
50°	2064	2182	2331
55°	1904	2031	2205
60°	1715	1853	2051
65°	1514	1647	1865
70°	1262	1403	1585
75°	992	1121	1240
80°	710	789	876
85°	463	463	435



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.8	4.1
10°-20°	294.4	11.4
20°-30°	430.3	16.7
30°-40°	488.4	19.0
40°-50°	471.5	18.3
50°-60°	388.9	15.1
60°-70°	259.0	10.1
70°-80°	115.9	4.5
80°-90°	20.7	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°	829.5	32.2
0°-40°	1317.9	51.2
0°-60°	2178.4	84.6
0°-90°	2574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2574.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1113	1113	1113	1113	1113	
5°	1112	1112	1107	1101	1098	105
15°	1048	1050	1048	1043	1036	295
25°	931	938	942	935	927	426
35°	748	759	793	798	795	469
45°	580	589	609	636	640	447
55°	406	413	433	457	470	362
65°	238	244	259	277	293	236
75°	95	100	108	113	119	104
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1113.2	1113.2	1113.2	1113.2	1113.2
2.5°	1116.2	1116.6	1114.0	1107.2	1102.9
5°	1111.9	1111.5	1107.2	1101.2	1097.8
7.5°	1099.5	1100.4	1099.1	1090.5	1085.8
10°	1087.5	1088.0	1084.5	1077.7	1072.1
12.5°	1072.1	1071.7	1067.0	1063.6	1054.6
15°	1047.8	1050.3	1047.8	1043.1	1035.8
17.5°	1024.2	1024.2	1025.9	1017.8	1012.3
20°	997.7	999.0	999.0	992.6	986.2
22.5°	966.9	970.8	972.1	965.2	957.5
25°	930.6	937.8	942.1	935.3	927.2
27.5°	886.5	897.6	910.5	905.3	896.4
30°	837.4	853.6	875.0	870.7	864.3
32.5°	790.7	807.0	836.5	834.8	831.4
35°	748.4	758.7	793.3	797.6	794.6
37.5°	708.2	717.6	750.1	759.9	757.4
40°	665.9	676.1	701.8	719.3	720.2
42.5°	624.0	633.8	654.7	680.0	680.0
45°	579.5	589.3	608.6	636.4	639.8
47.5°	535.9	546.1	564.9	592.7	598.3
50°	493.1	502.5	521.3	548.3	556.8
52.5°	448.6	458.9	477.3	502.1	514.5
55°	405.8	412.7	432.8	456.7	470.0
57.5°	361.4	367.8	390.4	411.0	424.7
60°	318.6	326.7	344.3	365.2	381.0
62.5°	277.5	286.1	301.1	319.5	337.4
65°	237.8	244.2	258.7	277.1	292.9
67.5°	199.3	204.8	219.4	232.2	248.9
70°	160.4	167.6	178.3	190.7	201.4
72.5°	129.2	132.1	141.1	150.1	161.2
75°	95.4	100.5	107.8	112.9	119.3
77.5°	68.4	71.4	75.7	80.0	86.0
80°	45.8	47.0	50.9	51.7	56.5
82.5°	27.8	28.7	29.5	29.9	31.6
85°	15.0	15.0	15.0	14.1	14.1
87.5°	8.6	8.6	7.3	6.0	4.3
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)