

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: P557434

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-80-94-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: P557434  
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-LD4-2STD-30-UNV-80-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

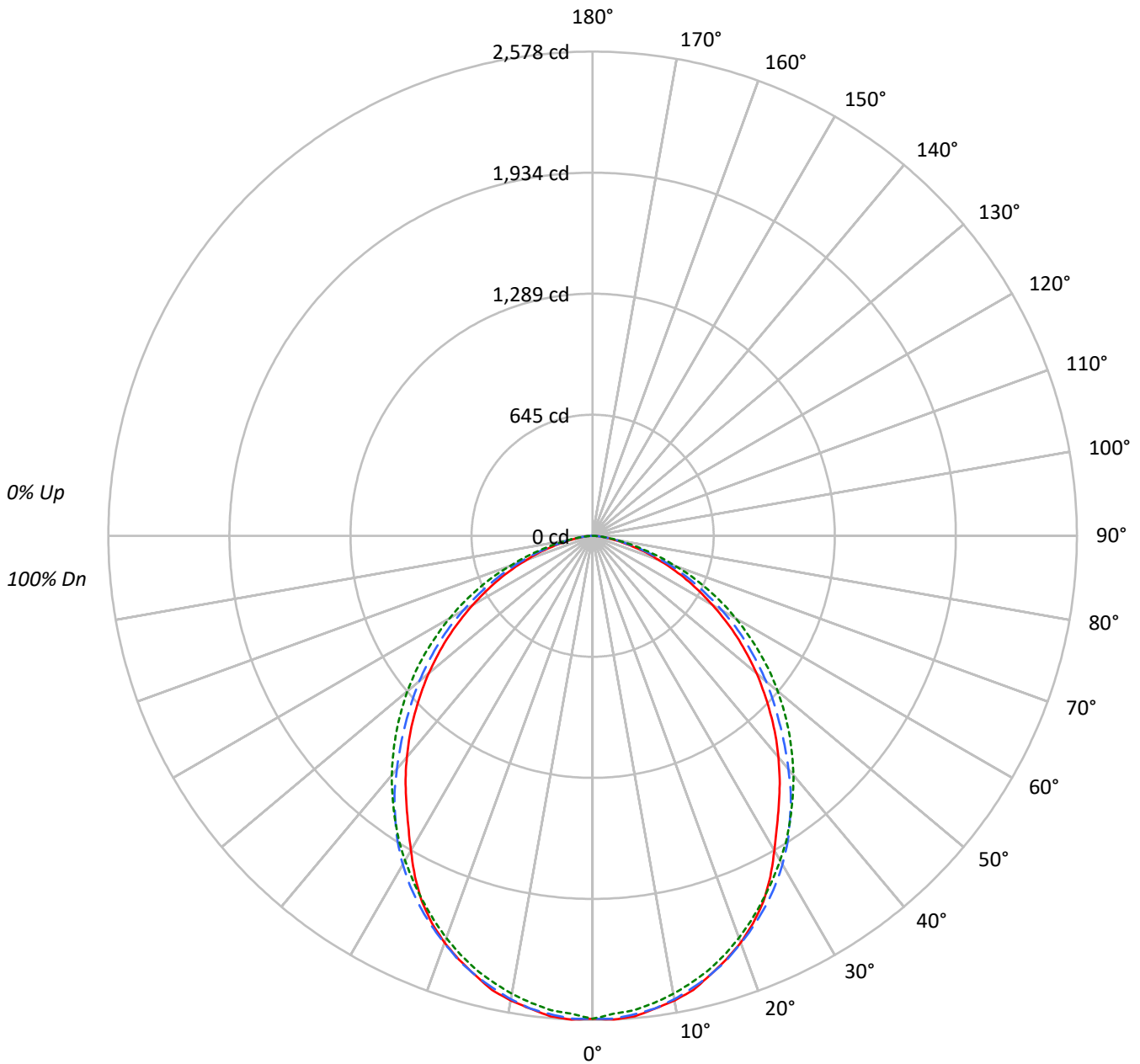
Lumens per Lamp: N/A  
Luminaire Lumens: 5946.0 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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°	6920	6920	6920
5°	6938	6909	6850
10°	6865	6846	6768
15°	6743	6743	6666
20°	6600	6609	6524
25°	6383	6462	6359
30°	6010	6280	6204
35°	5679	6020	6030
40°	5403	5695	5844
45°	5094	5350	5624
50°	4768	5041	5385
55°	4398	4691	5094
60°	3961	4280	4737
65°	3498	3806	4309
70°	2915	3242	3661
75°	2290	2588	2865
80°	1638	1822	2021
85°	1068	1068	1007



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	242.1	4.1
10°-20°	680.2	11.4
20°-30°	993.9	16.7
30°-40°	1128.2	19.0
40°-50°	1089.1	18.3
50°-60°	898.5	15.1
60°-70°	598.3	10.1
70°-80°	267.7	4.5
80°-90°	47.9	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°	1916.2	32.2
0°-40°	3044.5	51.2
0°-60°	5032.1	84.6
0°-90°	5946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5946.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2572	2572	2572	2572	2572	
5°	2568	2568	2558	2544	2536	243
15°	2420	2426	2420	2410	2393	682
25°	2150	2166	2176	2160	2142	984
35°	1729	1752	1832	1842	1836	1083
45°	1339	1361	1406	1470	1478	1033
55°	938	953	1000	1055	1086	837
65°	549	564	598	640	677	545
75°	220	232	249	261	276	241
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2571.5	2571.5	2571.5	2571.5	2571.5
2.5°	2578.4	2579.4	2573.5	2557.7	2547.8
5°	2568.5	2567.5	2557.7	2543.8	2535.9
7.5°	2539.9	2541.9	2538.9	2519.1	2508.3
10°	2512.2	2513.2	2505.3	2489.5	2476.7
12.5°	2476.7	2475.7	2464.8	2456.9	2436.1
15°	2420.3	2426.3	2420.3	2409.5	2392.7
17.5°	2366.0	2366.0	2370.0	2351.2	2338.3
20°	2304.8	2307.7	2307.7	2292.9	2278.1
22.5°	2233.6	2242.5	2245.5	2229.7	2211.9
25°	2149.7	2166.5	2176.3	2160.5	2141.8
27.5°	2047.9	2073.6	2103.2	2091.4	2070.6
30°	1934.3	1971.8	2021.2	2011.4	1996.5
32.5°	1826.6	1864.2	1932.3	1928.4	1920.5
35°	1728.8	1752.5	1832.5	1842.4	1835.5
37.5°	1636.0	1657.7	1732.8	1755.5	1749.6
40°	1538.2	1561.9	1621.1	1661.6	1663.6
42.5°	1441.3	1464.1	1512.5	1570.8	1570.8
45°	1338.6	1361.3	1405.8	1470.0	1477.9
47.5°	1237.8	1261.5	1305.0	1369.2	1382.1
50°	1139.0	1160.8	1204.2	1266.5	1286.2
52.5°	1036.3	1060.0	1102.5	1159.8	1188.4
55°	937.5	953.3	999.8	1055.1	1085.7
57.5°	834.8	849.6	901.9	949.4	981.0
60°	736.0	754.8	795.3	843.7	880.2
62.5°	641.1	660.9	695.5	738.0	779.4
65°	549.3	564.1	597.7	640.2	676.7
67.5°	460.4	473.2	506.8	536.4	575.0
70°	370.5	387.3	412.0	440.6	465.3
72.5°	298.3	305.3	326.0	346.8	372.4
75°	220.3	232.2	248.9	260.8	275.6
77.5°	158.1	165.0	174.9	184.7	198.6
80°	105.7	108.7	117.6	119.5	130.4
82.5°	64.2	66.2	68.2	69.2	73.1
85°	34.6	34.6	34.6	32.6	32.6
87.5°	19.8	19.8	16.8	13.8	9.9
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)