

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: P557424

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-80-84-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: P557424  
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-80-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

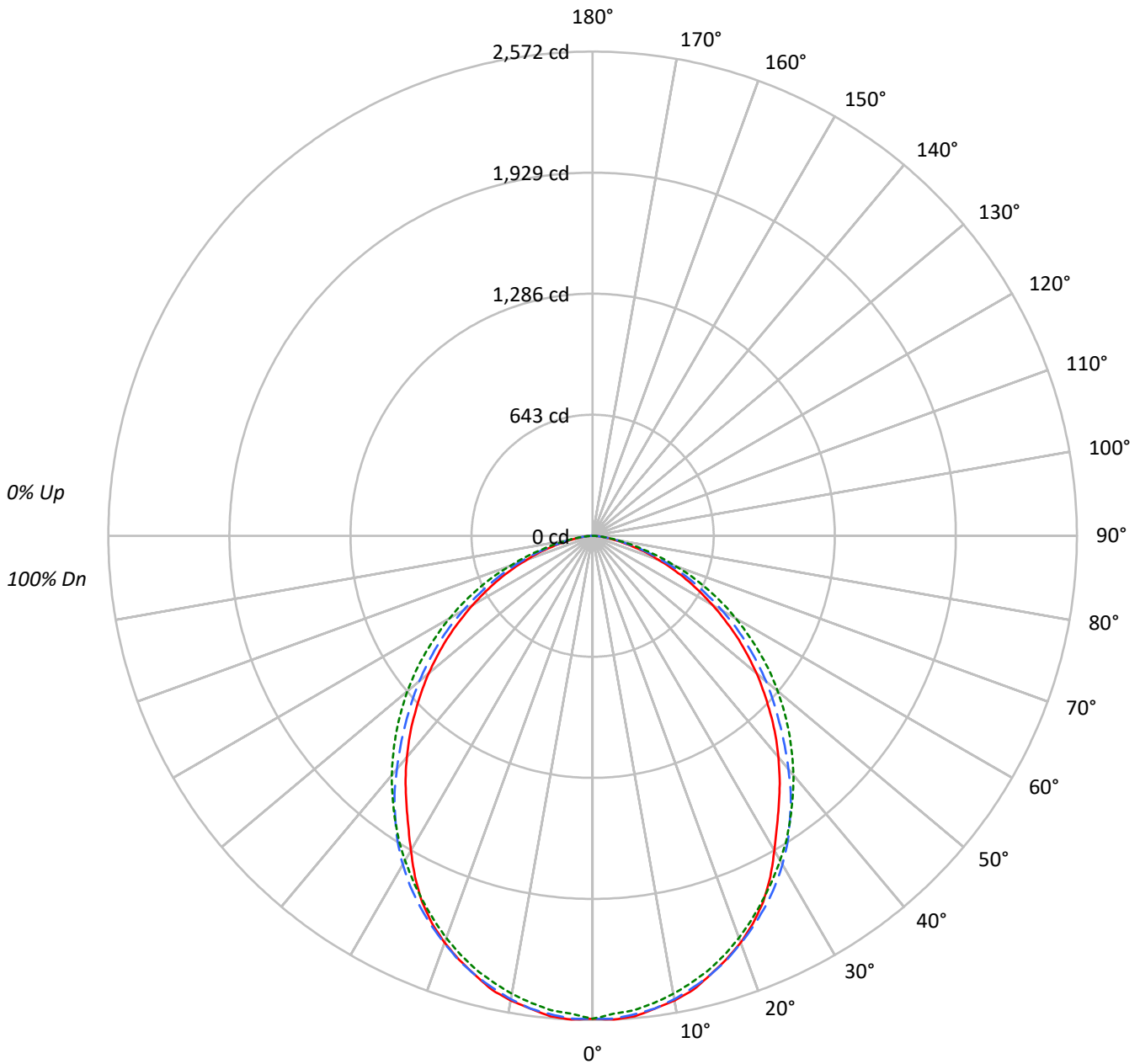
Lumens per Lamp: N/A  
Luminaire Lumens: 5932.0 lumens  
Efficiency: N/A  
Efficacy: 89.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	6903	6903	6903
5°	6922	6893	6834
10°	6848	6830	6751
15°	6727	6727	6650
20°	6584	6593	6508
25°	6368	6447	6344
30°	5996	6266	6189
35°	5666	6006	6016
40°	5390	5681	5830
45°	5082	5337	5611
50°	4757	5030	5372
55°	4388	4679	5081
60°	3951	4270	4726
65°	3489	3797	4299
70°	2908	3234	3652
75°	2285	2583	2859
80°	1635	1818	2016
85°	1065	1065	1003



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.5	4.1
10°-20°	678.6	11.4
20°-30°	991.6	16.7
30°-40°	1125.6	19.0
40°-50°	1086.6	18.3
50°-60°	896.3	15.1
60°-70°	596.9	10.1
70°-80°	267.1	4.5
80°-90°	47.8	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°	1911.7	32.2
0°-40°	3037.3	51.2
0°-60°	5020.2	84.6
0°-90°	5932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5932.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2565	2565	2565	2565	2565	
5°	2562	2562	2552	2538	2530	243
15°	2415	2421	2415	2404	2387	681
25°	2145	2161	2171	2155	2137	982
35°	1725	1748	1828	1838	1831	1081
45°	1335	1358	1402	1466	1474	1030
55°	935	951	997	1053	1083	835
65°	548	563	596	639	675	543
75°	220	232	248	260	275	240
85°	34	34	34	32	32	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2565.4	2565.4	2565.4	2565.4	2565.4
2.5°	2572.3	2573.3	2567.4	2551.6	2541.8
5°	2562.5	2561.5	2551.6	2537.8	2530.0
7.5°	2533.9	2535.9	2532.9	2513.2	2502.4
10°	2506.3	2507.3	2499.4	2483.6	2470.8
12.5°	2470.8	2469.8	2459.0	2451.1	2430.4
15°	2414.6	2420.6	2414.6	2403.8	2387.0
17.5°	2360.4	2360.4	2364.4	2345.7	2332.8
20°	2299.3	2302.3	2302.3	2287.5	2272.7
22.5°	2228.4	2237.2	2240.2	2224.4	2206.7
25°	2144.6	2161.4	2171.2	2155.4	2136.7
27.5°	2043.1	2068.7	2098.3	2086.5	2065.8
30°	1929.7	1967.2	2016.5	2006.6	1991.8
32.5°	1822.3	1859.8	1927.8	1923.8	1915.9
35°	1724.7	1748.4	1828.2	1838.1	1831.2
37.5°	1632.1	1653.8	1728.7	1751.4	1745.4
40°	1534.5	1558.2	1617.3	1657.7	1659.7
42.5°	1437.9	1460.6	1508.9	1567.1	1567.1
45°	1335.4	1358.1	1402.5	1466.5	1474.4
47.5°	1234.9	1258.6	1301.9	1366.0	1378.8
50°	1136.4	1158.0	1201.4	1263.5	1283.2
52.5°	1033.9	1057.5	1099.9	1157.1	1185.6
55°	935.3	951.1	997.4	1052.6	1083.1
57.5°	832.8	847.6	899.8	947.1	978.7
60°	734.2	753.0	793.4	841.7	878.1
62.5°	639.6	659.3	693.8	736.2	777.6
65°	548.0	562.8	596.3	638.6	675.1
67.5°	459.3	472.1	505.6	535.2	573.6
70°	369.6	386.3	411.0	439.6	464.2
72.5°	297.6	304.5	325.2	345.9	371.6
75°	219.8	231.6	248.4	260.2	275.0
77.5°	157.7	164.6	174.4	184.3	198.1
80°	105.5	108.4	117.3	119.3	130.1
82.5°	64.1	66.0	68.0	69.0	72.9
85°	34.5	34.5	34.5	32.5	32.5
87.5°	19.7	19.7	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)