

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: P557433

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-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: P557433  
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-80-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

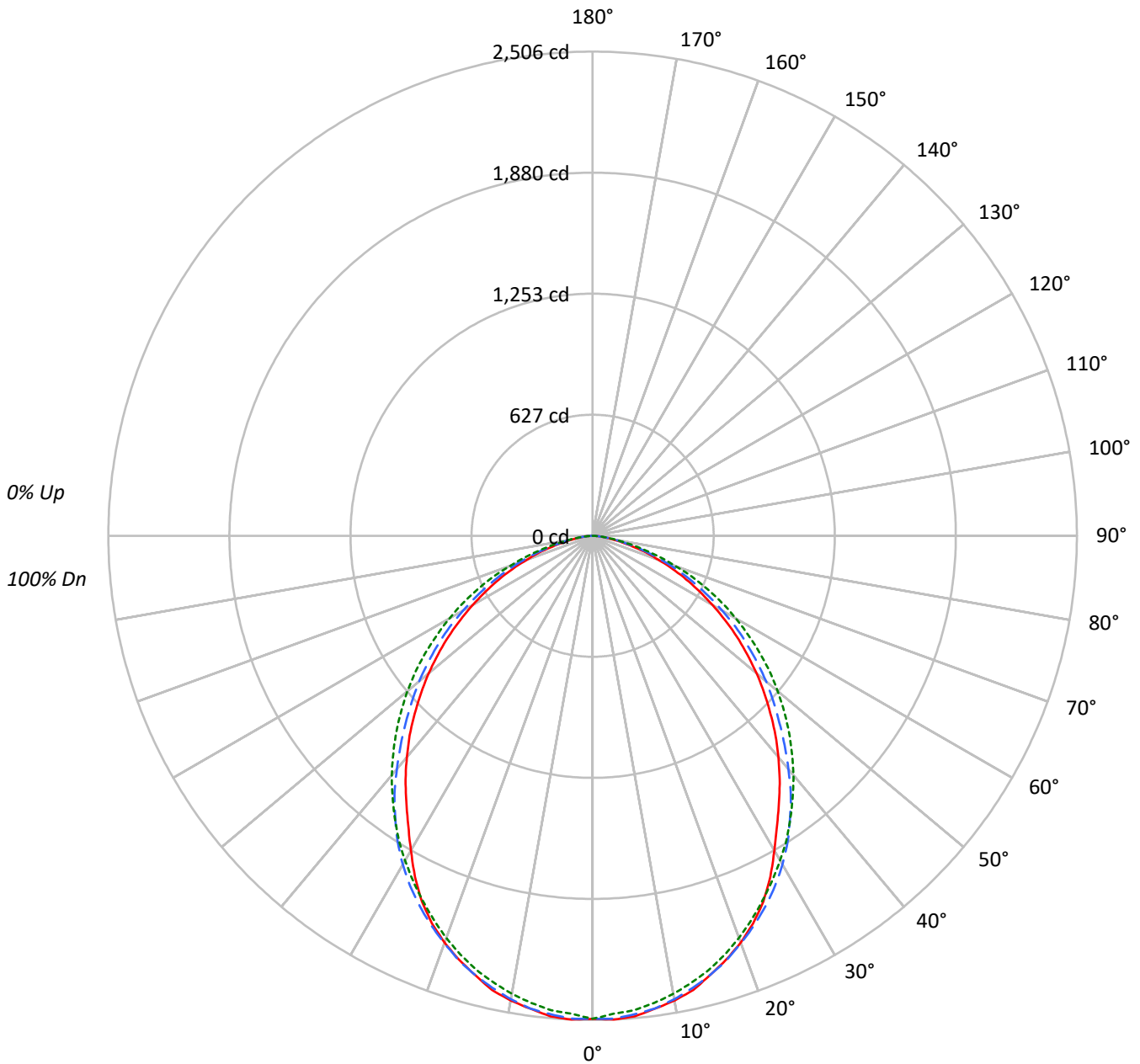
Lumens per Lamp: N/A  
Luminaire Lumens: 5780.0 lumens  
Efficiency: N/A  
Efficacy: 86.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	6727	6727	6727
5°	6745	6716	6659
10°	6673	6655	6578
15°	6555	6555	6480
20°	6416	6424	6342
25°	6204	6282	6182
30°	5843	6105	6031
35°	5521	5852	5862
40°	5252	5536	5681
45°	4952	5200	5467
50°	4635	4901	5234
55°	4275	4559	4951
60°	3850	4161	4605
65°	3400	3699	4188
70°	2833	3151	3559
75°	2227	2516	2785
80°	1593	1771	1965
85°	1037	1037	979



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	235.4	4.1
10°-20°	661.2	11.4
20°-30°	966.2	16.7
30°-40°	1096.7	19.0
40°-50°	1058.7	18.3
50°-60°	873.4	15.1
60°-70°	581.6	10.1
70°-80°	260.3	4.5
80°-90°	46.6	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°	1862.7	32.2
0°-40°	2959.5	51.2
0°-60°	4891.6	84.6
0°-90°	5780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5780.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2500	2500	2500	2500	2500	
5°	2497	2496	2486	2473	2465	236
15°	2353	2358	2353	2342	2326	663
25°	2090	2106	2116	2100	2082	957
35°	1681	1704	1781	1791	1784	1053
45°	1301	1323	1366	1429	1437	1004
55°	911	927	972	1026	1055	813
65°	534	548	581	622	658	529
75°	214	226	242	254	268	234
85°	34	34	34	32	32	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2499.7	2499.7	2499.7	2499.7	2499.7
2.5°	2506.4	2507.4	2501.6	2486.3	2476.7
5°	2496.8	2495.9	2486.3	2472.8	2465.1
7.5°	2469.0	2470.9	2468.0	2448.8	2438.2
10°	2442.1	2443.0	2435.4	2420.0	2407.5
12.5°	2407.5	2406.6	2396.0	2388.3	2368.1
15°	2352.8	2358.5	2352.8	2342.2	2325.9
17.5°	2300.0	2300.0	2303.8	2285.6	2273.1
20°	2240.4	2243.3	2243.3	2228.9	2214.5
22.5°	2171.3	2179.9	2182.8	2167.4	2150.1
25°	2089.6	2106.0	2115.6	2100.2	2082.0
27.5°	1990.7	2015.7	2044.5	2033.0	2012.8
30°	1880.3	1916.8	1964.8	1955.2	1940.8
32.5°	1775.6	1812.1	1878.4	1874.5	1866.9
35°	1680.6	1703.6	1781.4	1791.0	1784.3
37.5°	1590.3	1611.4	1684.4	1706.5	1700.7
40°	1495.2	1518.3	1575.9	1615.3	1617.2
42.5°	1401.1	1423.2	1470.2	1526.9	1526.9
45°	1301.2	1323.3	1366.5	1428.9	1436.6
47.5°	1203.3	1226.3	1268.6	1331.0	1343.5
50°	1107.2	1128.4	1170.6	1231.1	1250.3
52.5°	1007.4	1030.4	1071.7	1127.4	1155.3
55°	911.3	926.7	971.8	1025.6	1055.4
57.5°	811.5	825.9	876.8	922.9	953.6
60°	715.4	733.7	773.1	820.1	855.6
62.5°	623.2	642.5	676.1	717.4	757.7
65°	533.9	548.3	581.0	622.3	657.8
67.5°	447.5	460.0	492.6	521.5	558.9
70°	360.1	376.4	400.5	428.3	452.3
72.5°	290.0	296.7	316.9	337.1	362.0
75°	214.2	225.7	242.0	253.5	267.9
77.5°	153.7	160.4	170.0	179.6	193.0
80°	102.8	105.6	114.3	116.2	126.8
82.5°	62.4	64.3	66.3	67.2	71.1
85°	33.6	33.6	33.6	31.7	31.7
87.5°	19.2	19.2	16.3	13.4	9.6
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)