

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: P557438

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-80-97-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: P557438  
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-80-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

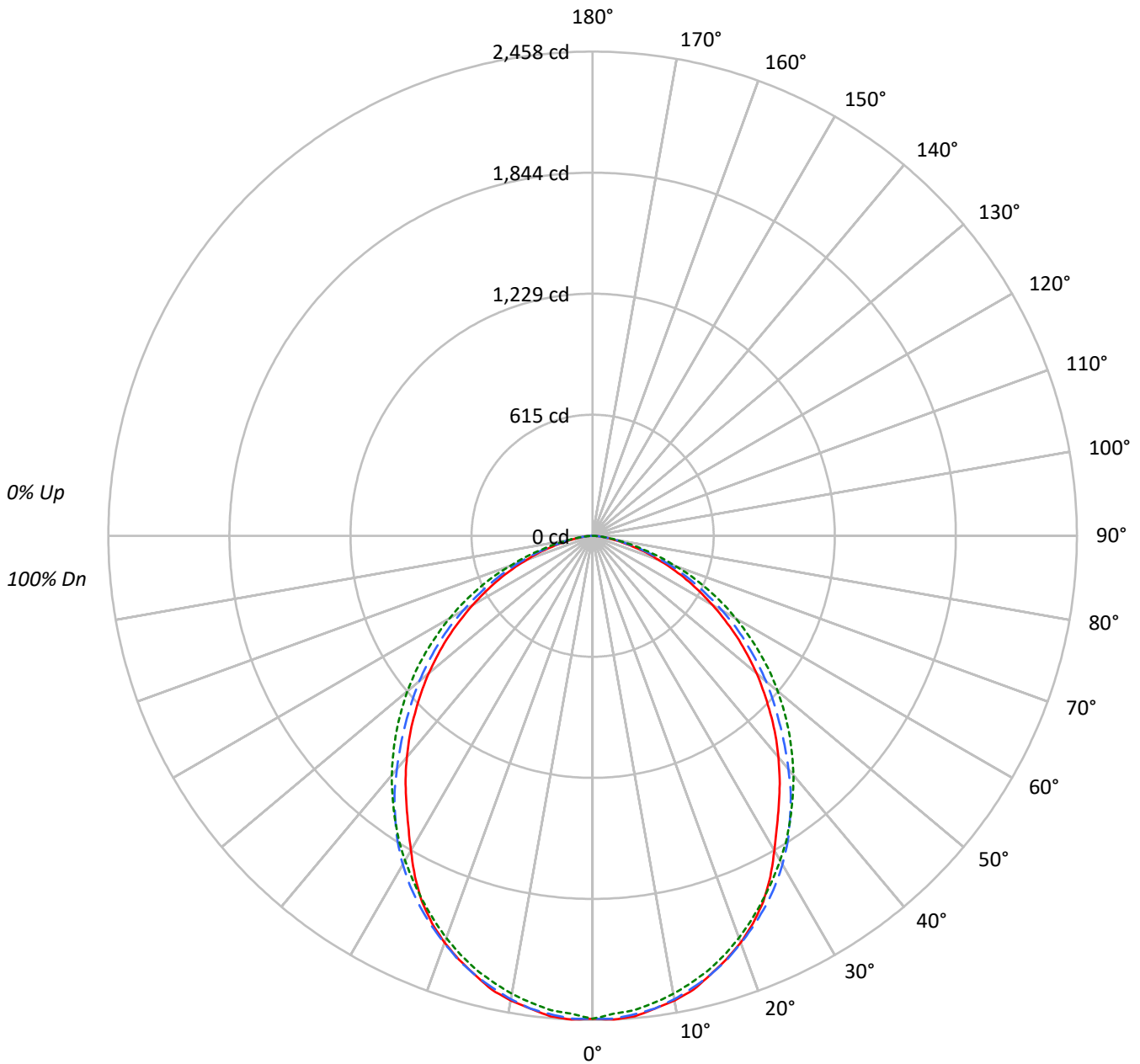
Lumens per Lamp: N/A  
Luminaire Lumens: 5669.0 lumens  
Efficiency: N/A  
Efficacy: 85.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	6597	6597	6597
5°	6615	6587	6531
10°	6545	6527	6452
15°	6429	6429	6355
20°	6293	6301	6220
25°	6085	6161	6063
30°	5730	5988	5915
35°	5415	5740	5749
40°	5152	5429	5572
45°	4857	5101	5362
50°	4546	4806	5134
55°	4193	4472	4856
60°	3777	4081	4517
65°	3335	3628	4108
70°	2779	3091	3490
75°	2183	2468	2732
80°	1562	1737	1926
85°	1019	1019	960



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.8	4.1
10°-20°	648.5	11.4
20°-30°	947.6	16.7
30°-40°	1075.7	19.0
40°-50°	1038.4	18.3
50°-60°	856.6	15.1
60°-70°	570.4	10.1
70°-80°	255.3	4.5
80°-90°	45.7	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°	1827.0	32.2
0°-40°	2902.6	51.2
0°-60°	4797.6	84.6
0°-90°	5669.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5669.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2452	2452	2452	2452	2452	
5°	2449	2448	2438	2425	2418	232
15°	2308	2313	2308	2297	2281	651
25°	2050	2066	2075	2060	2042	939
35°	1648	1671	1747	1757	1750	1033
45°	1276	1298	1340	1402	1409	985
55°	894	909	953	1006	1035	798
65°	524	538	570	610	645	519
75°	210	221	237	249	263	230
85°	33	33	33	31	31	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2451.7	2451.7	2451.7	2451.7	2451.7
2.5°	2458.3	2459.2	2453.6	2438.5	2429.1
5°	2448.9	2447.9	2438.5	2425.3	2417.8
7.5°	2421.6	2423.4	2420.6	2401.8	2391.4
10°	2395.2	2396.1	2388.6	2373.5	2361.3
12.5°	2361.3	2360.3	2350.0	2342.4	2322.7
15°	2307.6	2313.2	2307.6	2297.2	2281.2
17.5°	2255.8	2255.8	2259.6	2241.7	2229.4
20°	2197.4	2200.2	2200.2	2186.1	2172.0
22.5°	2129.6	2138.1	2140.9	2125.8	2108.9
25°	2049.5	2065.5	2074.9	2059.9	2042.0
27.5°	1952.5	1977.0	2005.2	1993.9	1974.2
30°	1844.2	1880.0	1927.1	1917.7	1903.5
32.5°	1741.5	1777.3	1842.3	1838.5	1831.0
35°	1648.3	1670.9	1747.2	1756.6	1750.0
37.5°	1559.7	1580.5	1652.0	1673.7	1668.1
40°	1466.5	1489.1	1545.6	1584.2	1586.1
42.5°	1374.2	1395.9	1442.0	1497.6	1497.6
45°	1276.2	1297.9	1340.3	1401.5	1409.0
47.5°	1180.2	1202.8	1244.2	1305.4	1317.7
50°	1086.0	1106.7	1148.1	1207.5	1226.3
52.5°	988.0	1010.6	1051.1	1105.8	1133.1
55°	893.8	908.9	953.2	1005.9	1035.1
57.5°	795.9	810.0	859.9	905.1	935.3
60°	701.7	719.6	758.2	804.4	839.2
62.5°	611.3	630.1	663.1	703.6	743.1
65°	523.7	537.8	569.8	610.3	645.2
67.5°	438.9	451.2	483.2	511.4	548.2
70°	353.2	369.2	392.8	420.1	443.6
72.5°	284.4	291.0	310.8	330.6	355.1
75°	210.0	221.3	237.4	248.7	262.8
77.5°	150.7	157.3	166.7	176.1	189.3
80°	100.8	103.6	112.1	114.0	124.3
82.5°	61.2	63.1	65.0	65.9	69.7
85°	33.0	33.0	33.0	31.1	31.1
87.5°	18.8	18.8	16.0	13.2	9.4
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)