

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: P557375

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-80-97-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: P557375  
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-LD4-2LO-50-UNV-80-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

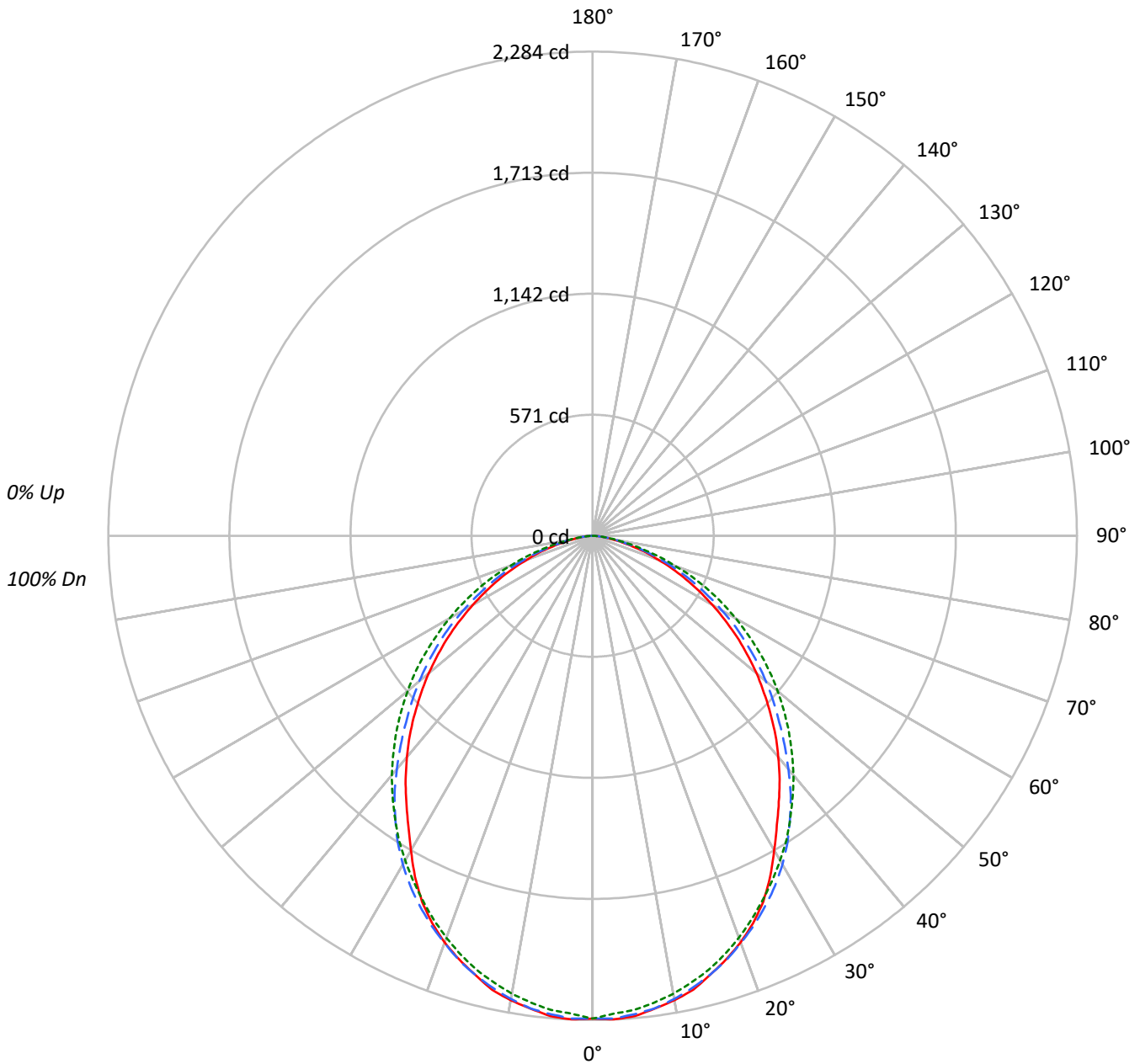
Lumens per Lamp: N/A  
Luminaire Lumens: 5266.0 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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°	6128	6128	6128
5°	6145	6119	6067
10°	6080	6063	5993
15°	5972	5972	5903
20°	5845	5853	5778
25°	5653	5723	5632
30°	5323	5562	5494
35°	5030	5332	5340
40°	4785	5043	5176
45°	4512	4738	4981
50°	4223	4465	4769
55°	3895	4154	4511
60°	3508	3791	4196
65°	3098	3370	3816
70°	2581	2870	3242
75°	2028	2293	2538
80°	1450	1613	1790
85°	945	945	892



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.4	4.1
10°-20°	602.4	11.4
20°-30°	880.3	16.7
30°-40°	999.2	19.0
40°-50°	964.6	18.3
50°-60°	795.7	15.1
60°-70°	529.9	10.1
70°-80°	237.1	4.5
80°-90°	42.4	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°	1697.1	32.2
0°-40°	2696.3	51.2
0°-60°	4456.6	84.6
0°-90°	5266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5266.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2277	2277	2277	2277	2277	
5°	2275	2274	2265	2253	2246	215
15°	2144	2149	2144	2134	2119	604
25°	1904	1919	1927	1913	1897	872
35°	1531	1552	1623	1632	1626	959
45°	1186	1206	1245	1302	1309	915
55°	830	844	885	934	962	741
65°	486	500	529	567	599	482
75°	195	206	220	231	244	213
85°	31	31	31	29	29	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2277.4	2277.4	2277.4	2277.4	2277.4
2.5°	2283.5	2284.4	2279.2	2265.2	2256.4
5°	2274.8	2273.9	2265.2	2252.9	2245.9
7.5°	2249.4	2251.2	2248.5	2231.0	2221.4
10°	2224.9	2225.8	2218.8	2204.8	2193.4
12.5°	2193.4	2192.5	2182.9	2175.9	2157.5
15°	2143.5	2148.8	2143.5	2133.9	2119.0
17.5°	2095.4	2095.4	2098.9	2082.3	2070.9
20°	2041.2	2043.8	2043.8	2030.7	2017.6
22.5°	1978.2	1986.1	1988.7	1974.7	1958.9
25°	1903.8	1918.7	1927.4	1913.4	1896.8
27.5°	1813.7	1836.5	1862.7	1852.2	1833.8
30°	1713.1	1746.3	1790.1	1781.3	1768.2
32.5°	1617.7	1651.0	1711.3	1707.8	1700.8
35°	1531.1	1552.1	1623.0	1631.7	1625.6
37.5°	1448.9	1468.1	1534.6	1554.7	1549.5
40°	1362.2	1383.2	1435.7	1471.6	1473.4
42.5°	1276.5	1296.6	1339.5	1391.1	1391.1
45°	1185.5	1205.6	1245.0	1301.9	1308.9
47.5°	1096.3	1117.3	1155.8	1212.6	1224.0
50°	1008.8	1028.0	1066.5	1121.6	1139.1
52.5°	917.8	938.8	976.4	1027.2	1052.5
55°	830.3	844.3	885.4	934.4	961.5
57.5°	739.3	752.4	798.8	840.8	868.8
60°	651.8	668.4	704.3	747.2	779.6
62.5°	567.8	585.3	615.9	653.6	690.3
65°	486.5	499.6	529.3	566.9	599.3
67.5°	407.7	419.1	448.8	475.1	509.2
70°	328.1	343.0	364.8	390.2	412.1
72.5°	264.2	270.3	288.7	307.1	329.8
75°	195.1	205.6	220.5	231.0	244.1
77.5°	140.0	146.1	154.9	163.6	175.9
80°	93.6	96.2	104.1	105.9	115.5
82.5°	56.9	58.6	60.4	61.2	64.7
85°	30.6	30.6	30.6	28.9	28.9
87.5°	17.5	17.5	14.9	12.2	8.7
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)