

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: P556472

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-80-88-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: P556472  
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-LD4-1LO-35-UNV-80-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

**Summary**

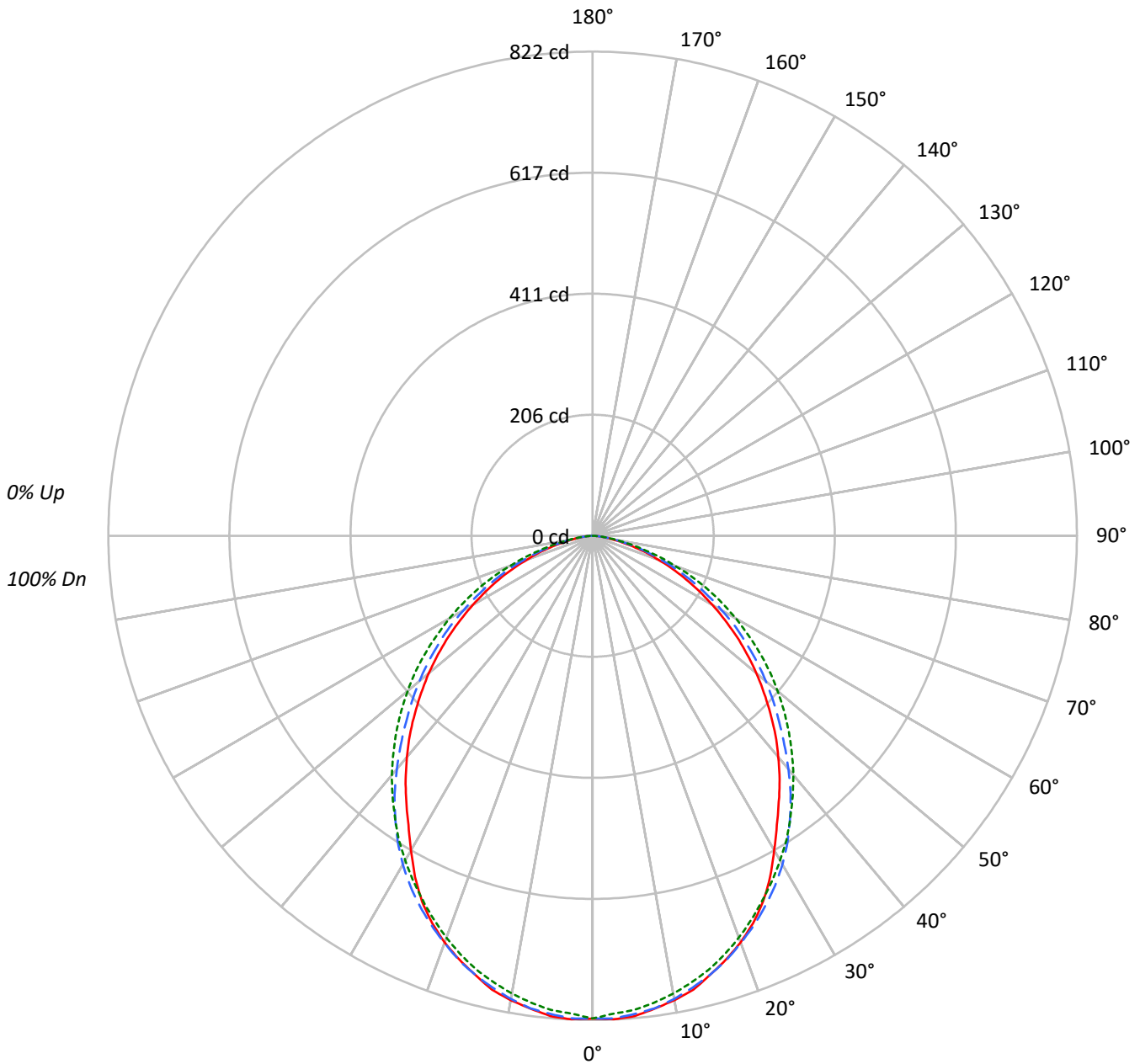
Lumens per Lamp: N/A  
Luminaire Lumens: 1895.0 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	2205	2205	2205
5°	2211	2202	2183
10°	2188	2182	2157
15°	2149	2149	2125
20°	2103	2106	2079
25°	2034	2059	2027
30°	1916	2002	1977
35°	1810	1918	1922
40°	1722	1815	1862
45°	1623	1705	1792
50°	1520	1607	1716
55°	1402	1495	1623
60°	1263	1364	1510
65°	1115	1213	1373
70°	929	1033	1167
75°	730	824	913
80°	522	581	645
85°	340	340	321



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.2	4.1
10°-20°	216.8	11.4
20°-30°	316.8	16.7
30°-40°	359.6	19.0
40°-50°	347.1	18.3
50°-60°	286.3	15.1
60°-70°	190.7	10.1
70°-80°	85.3	4.5
80°-90°	15.3	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°	610.7	32.2
0°-40°	970.3	51.2
0°-60°	1603.7	84.6
0°-90°	1895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1895.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	819	818	815	811	808	77
15°	771	773	771	768	763	217
25°	685	690	694	689	683	314
35°	551	558	584	587	585	345
45°	427	434	448	468	471	329
55°	299	304	319	336	346	267
65°	175	180	190	204	216	174
75°	70	74	79	83	88	77
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	819.5	819.5	819.5	819.5	819.5
2.5°	821.7	822.1	820.2	815.1	812.0
5°	818.6	818.3	815.1	810.7	808.2
7.5°	809.5	810.1	809.1	802.9	799.4
10°	800.6	801.0	798.4	793.4	789.3
12.5°	789.3	789.0	785.5	783.0	776.4
15°	771.4	773.3	771.4	767.9	762.6
17.5°	754.1	754.1	755.3	749.3	745.2
20°	734.5	735.5	735.5	730.8	726.0
22.5°	711.9	714.7	715.6	710.6	704.9
25°	685.1	690.5	693.6	688.6	682.6
27.5°	652.7	660.9	670.3	666.5	659.9
30°	616.5	628.4	644.2	641.0	636.3
32.5°	582.1	594.1	615.8	614.6	612.1
35°	551.0	558.5	584.0	587.2	585.0
37.5°	521.4	528.3	552.2	559.5	557.6
40°	490.2	497.8	516.7	529.6	530.2
42.5°	459.4	466.6	482.0	500.6	500.6
45°	426.6	433.9	448.0	468.5	471.0
47.5°	394.5	402.1	415.9	436.4	440.5
50°	363.0	369.9	383.8	403.6	409.9
52.5°	330.3	337.8	351.4	369.6	378.8
55°	298.8	303.8	318.6	336.3	346.0
57.5°	266.0	270.8	287.5	302.6	312.6
60°	234.6	240.5	253.4	268.9	280.5
62.5°	204.3	210.6	221.7	235.2	248.4
65°	175.1	179.8	190.5	204.0	215.7
67.5°	146.7	150.8	161.5	171.0	183.2
70°	118.1	123.4	131.3	140.4	148.3
72.5°	95.1	97.3	103.9	110.5	118.7
75°	70.2	74.0	79.3	83.1	87.8
77.5°	50.4	52.6	55.7	58.9	63.3
80°	33.7	34.6	37.5	38.1	41.6
82.5°	20.5	21.1	21.7	22.0	23.3
85°	11.0	11.0	11.0	10.4	10.4
87.5°	6.3	6.3	5.4	4.4	3.1
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)