

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: P557293

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-96-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: P557293  
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-35-UNV-93-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

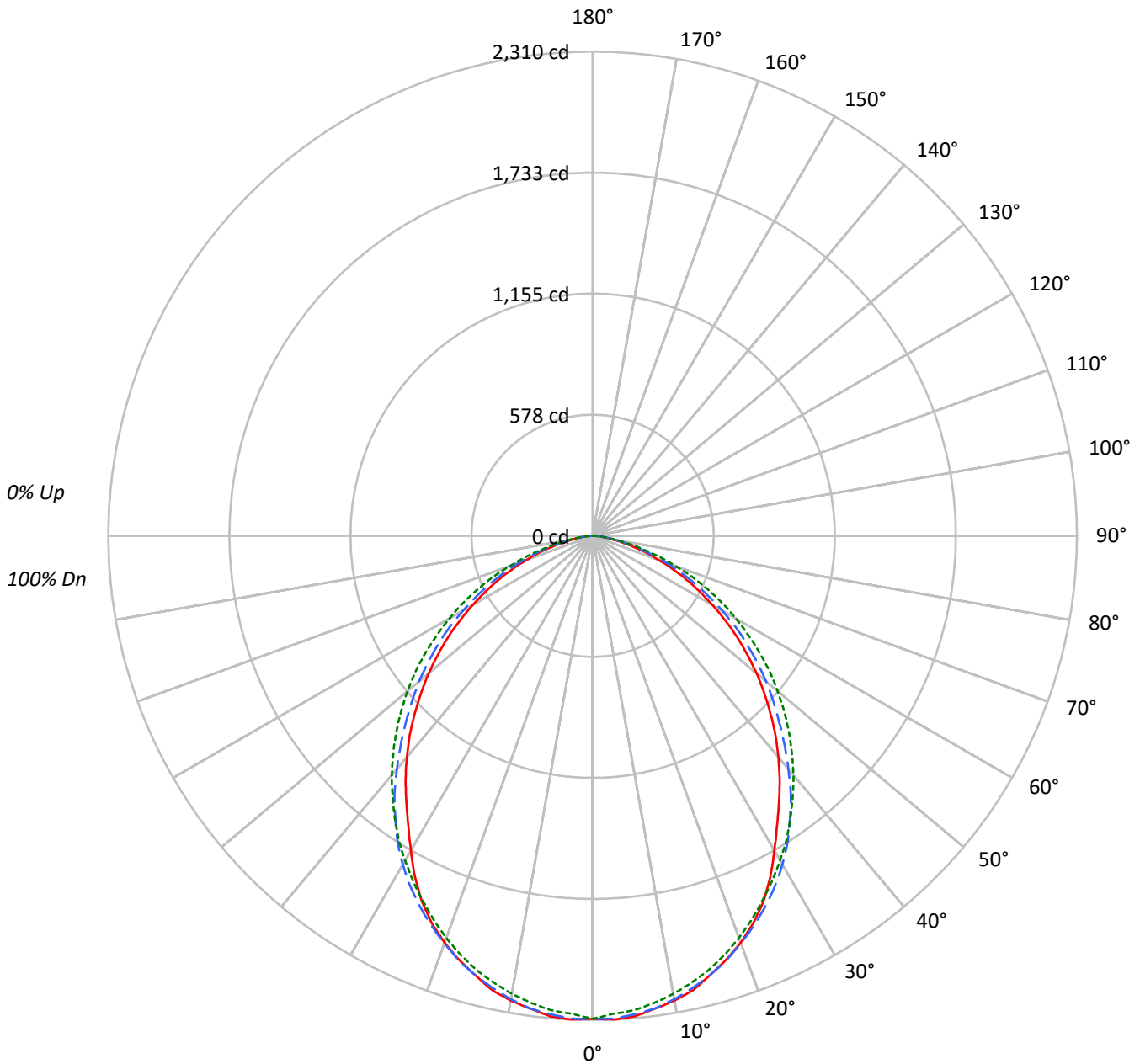
Lumens per Lamp: N/A  
Luminaire Lumens: 5328.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	6201	6201	6201
5°	6217	6191	6138
10°	6151	6134	6064
15°	6042	6042	5973
20°	5914	5922	5846
25°	5719	5790	5698
30°	5386	5628	5559
35°	5089	5394	5403
40°	4842	5103	5237
45°	4565	4794	5040
50°	4273	4518	4825
55°	3941	4203	4564
60°	3549	3835	4245
65°	3134	3410	3861
70°	2612	2904	3280
75°	2052	2320	2568
80°	1468	1632	1810
85°	957	957	902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	216.9	4.1
10°-20°	609.5	11.4
20°-30°	890.6	16.7
30°-40°	1011.0	19.0
40°-50°	975.9	18.3
50°-60°	805.1	15.1
60°-70°	536.1	10.1
70°-80°	239.9	4.5
80°-90°	42.9	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°	1717.1	32.2
0°-40°	2728.0	51.2
0°-60°	4509.0	84.6
0°-90°	5328.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5328.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2304	2304	2304	2304	2304	
5°	2302	2301	2292	2279	2272	218
15°	2169	2174	2169	2159	2144	611
25°	1926	1941	1950	1936	1919	882
35°	1549	1570	1642	1651	1645	971
45°	1200	1220	1260	1317	1324	925
55°	840	854	896	945	973	750
65°	492	506	536	574	606	488
75°	197	208	223	234	247	216
85°	31	31	31	29	29	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2304.2	2304.2	2304.2	2304.2	2304.2
2.5°	2310.4	2311.3	2306.0	2291.8	2283.0
5°	2301.6	2300.7	2291.8	2279.4	2272.4
7.5°	2275.9	2277.7	2275.0	2257.3	2247.6
10°	2251.1	2252.0	2244.9	2230.7	2219.2
12.5°	2219.2	2218.4	2208.6	2201.5	2182.9
15°	2168.8	2174.1	2168.8	2159.0	2144.0
17.5°	2120.1	2120.1	2123.6	2106.8	2095.3
20°	2065.2	2067.9	2067.9	2054.6	2041.3
22.5°	2001.5	2009.4	2012.1	1997.9	1982.0
25°	1926.2	1941.3	1950.1	1936.0	1919.2
27.5°	1835.1	1858.1	1884.6	1874.0	1855.4
30°	1733.3	1766.9	1811.2	1802.3	1789.0
32.5°	1636.8	1670.4	1731.5	1727.9	1720.9
35°	1549.1	1570.4	1642.1	1650.9	1644.7
37.5°	1465.9	1485.4	1552.7	1573.0	1567.7
40°	1378.3	1399.5	1452.6	1488.9	1490.7
42.5°	1291.5	1311.9	1355.3	1407.5	1407.5
45°	1199.5	1219.8	1259.7	1317.2	1324.3
47.5°	1109.2	1130.4	1169.4	1226.9	1238.4
50°	1020.7	1040.1	1079.1	1134.8	1152.6
52.5°	928.6	949.8	987.9	1039.2	1064.9
55°	840.1	854.2	895.8	945.4	972.9
57.5°	748.0	761.3	808.2	850.7	879.0
60°	659.5	676.3	712.6	756.0	788.7
62.5°	574.5	592.2	623.2	661.3	698.4
65°	492.2	505.5	535.6	573.6	606.4
67.5°	412.5	424.0	454.1	480.7	515.2
70°	332.0	347.0	369.1	394.8	416.9
72.5°	267.3	273.5	292.1	310.7	333.7
75°	197.4	208.0	223.1	233.7	247.0
77.5°	141.6	147.8	156.7	165.5	177.9
80°	94.7	97.4	105.3	107.1	116.8
82.5°	57.5	59.3	61.1	62.0	65.5
85°	31.0	31.0	31.0	29.2	29.2
87.5°	17.7	17.7	15.0	12.4	8.9
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)