

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: P557966

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-81-97-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: P557966  
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-LD4-3LO-30-UNV-81-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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**

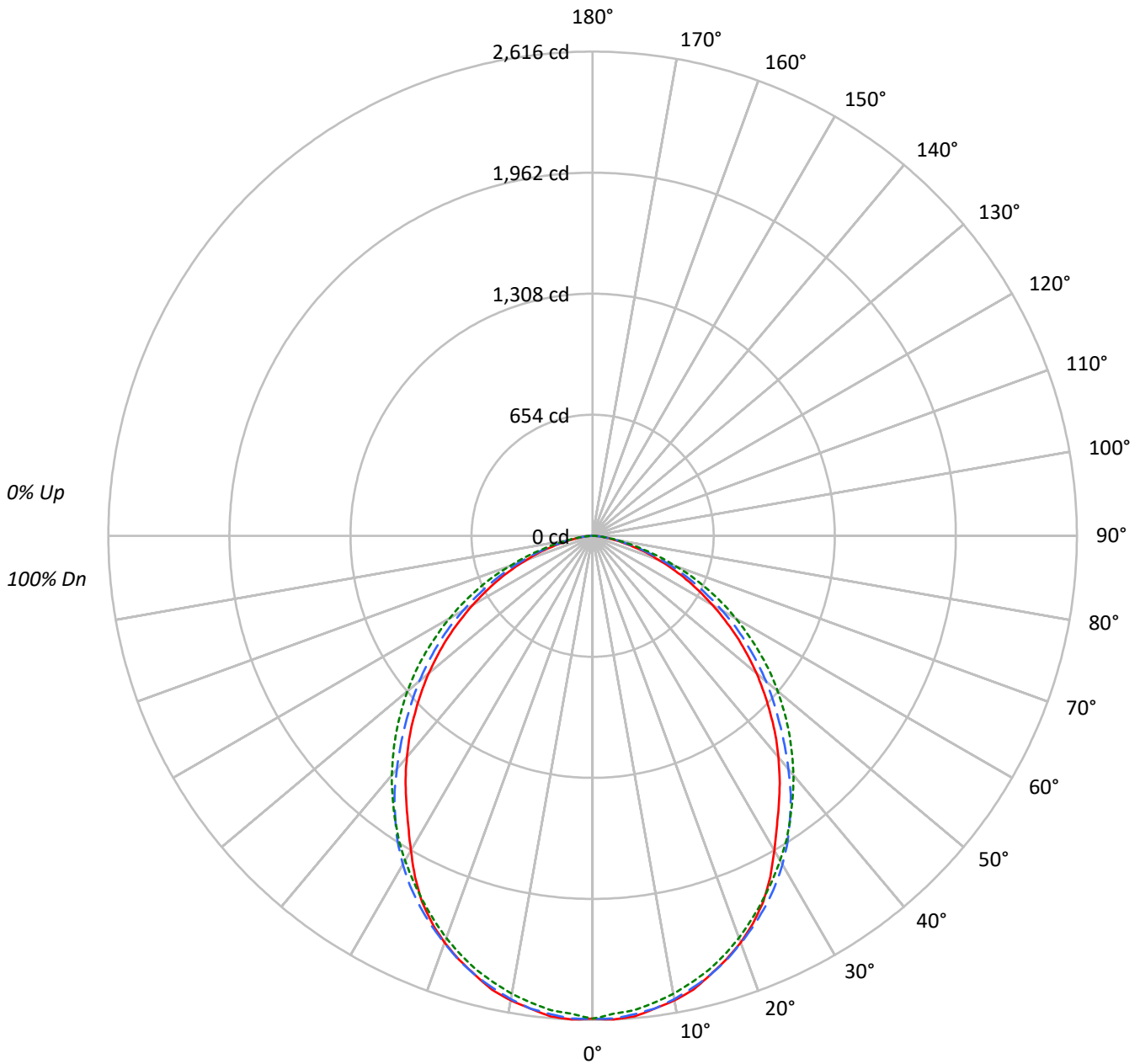
Lumens per Lamp: N/A  
Luminaire Lumens: 6033.0 lumens  
Efficiency: N/A  
Efficacy: 85.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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°	7021	7021	7021
5°	7040	7010	6950
10°	6965	6946	6866
15°	6842	6842	6763
20°	6697	6705	6619
25°	6476	6557	6452
30°	6098	6372	6294
35°	5762	6108	6118
40°	5482	5778	5930
45°	5169	5428	5707
50°	4838	5115	5464
55°	4463	4759	5168
60°	4019	4343	4807
65°	3549	3861	4372
70°	2958	3289	3714
75°	2324	2626	2908
80°	1663	1849	2050
85°	1084	1084	1022



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.7	4.1
10°-20°	690.1	11.4
20°-30°	1008.5	16.7
30°-40°	1144.8	19.0
40°-50°	1105.1	18.3
50°-60°	911.6	15.1
60°-70°	607.1	10.1
70°-80°	271.7	4.5
80°-90°	48.6	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°	1944.3	32.2
0°-40°	3089.0	51.2
0°-60°	5105.7	84.6
0°-90°	6033.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6033.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2609	2609	2609	2609	2609	
5°	2606	2605	2595	2581	2573	247
15°	2456	2462	2456	2445	2428	692
25°	2181	2198	2208	2192	2173	999
35°	1754	1778	1859	1869	1862	1099
45°	1358	1381	1426	1492	1500	1048
55°	951	967	1014	1070	1102	849
65°	557	572	606	650	687	553
75°	224	236	253	265	280	244
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2609.1	2609.1	2609.1	2609.1	2609.1
2.5°	2616.1	2617.1	2611.1	2595.1	2585.1
5°	2606.1	2605.1	2595.1	2581.1	2573.0
7.5°	2577.0	2579.0	2576.0	2556.0	2545.0
10°	2549.0	2550.0	2542.0	2525.9	2512.9
12.5°	2512.9	2511.9	2500.9	2492.8	2471.8
15°	2455.8	2461.8	2455.8	2444.7	2427.7
17.5°	2400.6	2400.6	2404.6	2385.6	2372.6
20°	2338.5	2341.5	2341.5	2326.5	2311.4
22.5°	2266.3	2275.3	2278.3	2262.3	2244.3
25°	2181.1	2198.2	2208.2	2192.1	2173.1
27.5°	2077.9	2103.9	2134.0	2122.0	2100.9
30°	1962.6	2000.7	2050.8	2040.8	2025.7
32.5°	1853.3	1891.4	1960.6	1956.6	1948.6
35°	1754.1	1778.2	1859.4	1869.4	1862.4
37.5°	1659.9	1681.9	1758.1	1781.2	1775.2
40°	1560.7	1584.7	1644.9	1686.0	1688.0
42.5°	1462.4	1485.5	1534.6	1593.7	1593.7
45°	1358.2	1381.2	1426.3	1491.5	1499.5
47.5°	1255.9	1280.0	1324.1	1389.3	1402.3
50°	1155.7	1177.8	1221.9	1285.0	1305.1
52.5°	1051.5	1075.5	1118.6	1176.8	1205.8
55°	951.2	967.3	1014.4	1070.5	1101.6
57.5°	847.0	862.0	915.1	963.3	995.3
60°	746.8	765.8	806.9	856.0	893.1
62.5°	650.5	670.6	705.7	748.8	790.9
65°	557.3	572.3	606.4	649.5	686.6
67.5°	467.1	480.1	514.2	544.3	583.4
70°	375.9	392.9	418.0	447.0	472.1
72.5°	302.7	309.7	330.8	351.8	377.9
75°	223.5	235.6	252.6	264.6	279.7
77.5°	160.4	167.4	177.4	187.4	201.5
80°	107.3	110.3	119.3	121.3	132.3
82.5°	65.2	67.2	69.2	70.2	74.2
85°	35.1	35.1	35.1	33.1	33.1
87.5°	20.0	20.0	17.0	14.0	10.0
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)