

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: P558316

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-93-96-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: P558316  
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-LD4-3STD-35-UNV-93-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

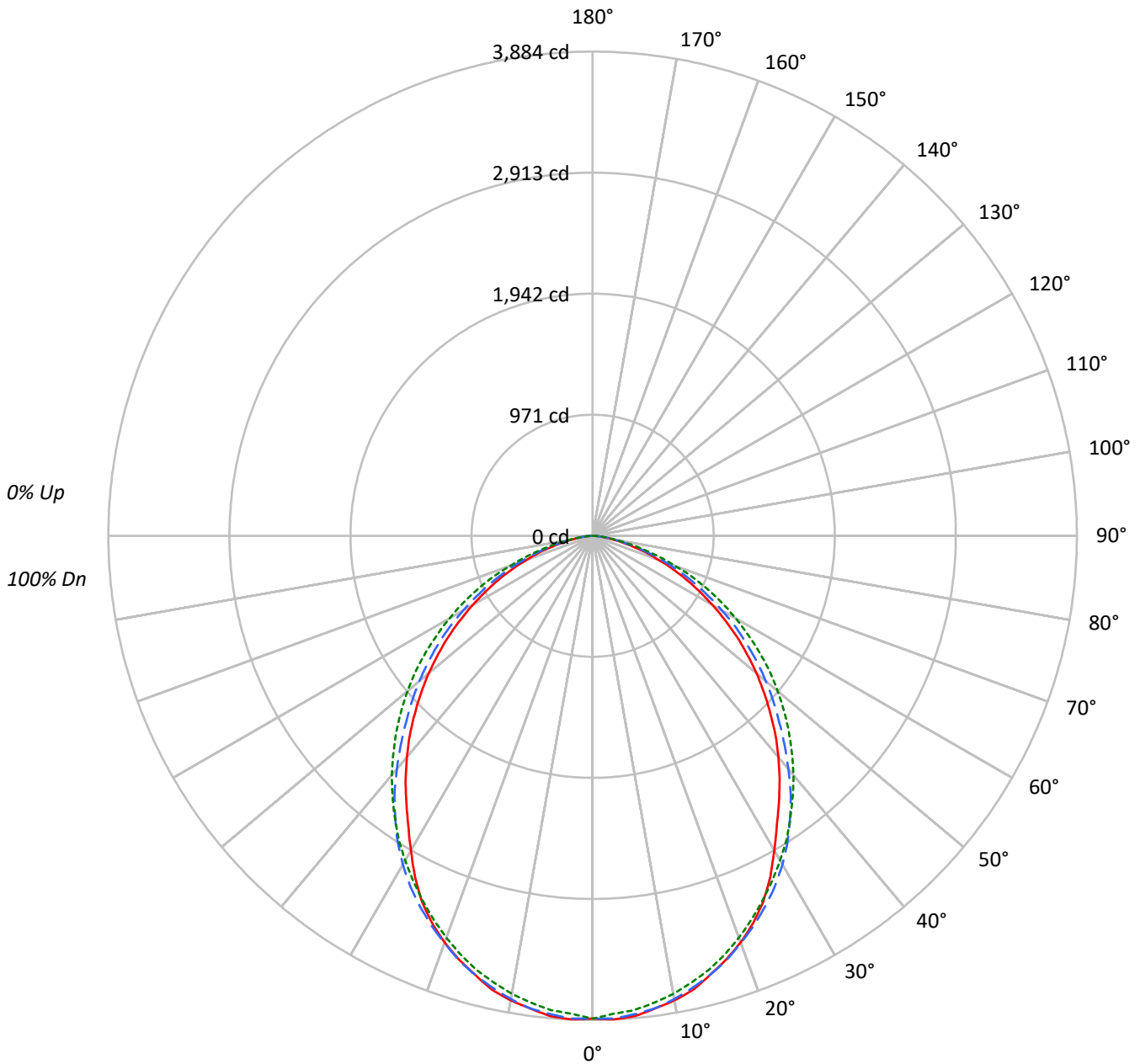
Lumens per Lamp: N/A  
Luminaire Lumens: 8956.0 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10423	10423	10423
5°	10451	10406	10318
10°	10340	10311	10193
15°	10156	10156	10040
20°	9941	9954	9826
25°	9614	9733	9579
30°	9053	9460	9344
35°	8554	9067	9082
40°	8139	8578	8802
45°	7673	8058	8471
50°	7183	7594	8111
55°	6625	7065	7672
60°	5966	6447	7135
65°	5268	5732	6490
70°	4390	4882	5514
75°	3450	3899	4316
80°	2467	2744	3044
85°	1609	1609	1516



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	364.7	4.1
10°-20°	1024.5	11.4
20°-30°	1497.1	16.7
30°-40°	1699.4	19.0
40°-50°	1640.5	18.3
50°-60°	1353.3	15.1
60°-70°	901.2	10.1
70°-80°	403.3	4.5
80°-90°	72.2	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°	2886.3	32.2
0°-40°	4585.6	51.2
0°-60°	7579.4	84.6
0°-90°	8956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8956.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3873	3873	3873	3873	3873	
5°	3869	3867	3852	3832	3820	366
15°	3646	3654	3646	3629	3604	1028
25°	3238	3263	3278	3254	3226	1483
35°	2604	2640	2760	2775	2765	1632
45°	2016	2050	2117	2214	2226	1556
55°	1412	1436	1506	1589	1635	1260
65°	827	850	900	964	1019	820
75°	332	350	375	393	415	363
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3873.2	3873.2	3873.2	3873.2	3873.2
2.5°	3883.7	3885.1	3876.2	3852.4	3837.5
5°	3868.8	3867.3	3852.4	3831.6	3819.7
7.5°	3825.6	3828.6	3824.1	3794.4	3778.0
10°	3784.0	3785.4	3773.5	3749.7	3730.4
12.5°	3730.4	3728.9	3712.5	3700.6	3669.4
15°	3645.6	3654.5	3645.6	3629.2	3603.9
17.5°	3563.7	3563.7	3569.7	3541.4	3522.1
20°	3471.5	3475.9	3475.9	3453.6	3431.3
22.5°	3364.3	3377.7	3382.2	3358.4	3331.6
25°	3237.9	3263.2	3278.0	3254.2	3226.0
27.5°	3084.6	3123.3	3167.9	3150.1	3118.8
30°	2913.5	2970.0	3044.4	3029.5	3007.2
32.5°	2751.3	2807.8	2910.5	2904.6	2892.7
35°	2604.0	2639.7	2760.2	2775.1	2764.7
37.5°	2464.1	2496.8	2609.9	2644.2	2635.2
40°	2316.8	2352.5	2441.8	2502.8	2505.8
42.5°	2171.0	2205.2	2278.1	2365.9	2365.9
45°	2016.2	2050.5	2117.4	2214.1	2226.0
47.5°	1864.5	1900.2	1965.6	2062.4	2081.7
50°	1715.7	1748.4	1813.9	1907.6	1937.4
52.5°	1560.9	1596.6	1660.6	1746.9	1790.1
55°	1412.1	1435.9	1505.8	1589.2	1635.3
57.5°	1257.4	1279.7	1358.5	1430.0	1477.6
60°	1108.6	1136.8	1197.8	1270.7	1325.8
62.5°	965.7	995.5	1047.5	1111.5	1174.0
65°	827.3	849.6	900.2	964.2	1019.3
67.5°	693.4	712.7	763.3	808.0	866.0
70°	558.0	583.3	620.5	663.6	700.8
72.5°	449.4	459.8	491.0	522.3	561.0
75°	331.8	349.7	375.0	392.8	415.1
77.5°	238.1	248.5	263.4	278.3	299.1
80°	159.2	163.7	177.1	180.0	196.4
82.5°	96.7	99.7	102.7	104.2	110.1
85°	52.1	52.1	52.1	49.1	49.1
87.5°	29.8	29.8	25.3	20.8	14.9
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)