

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: P556875

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-94-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: P556875  
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-LD4-1STD-50-UNV-81-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

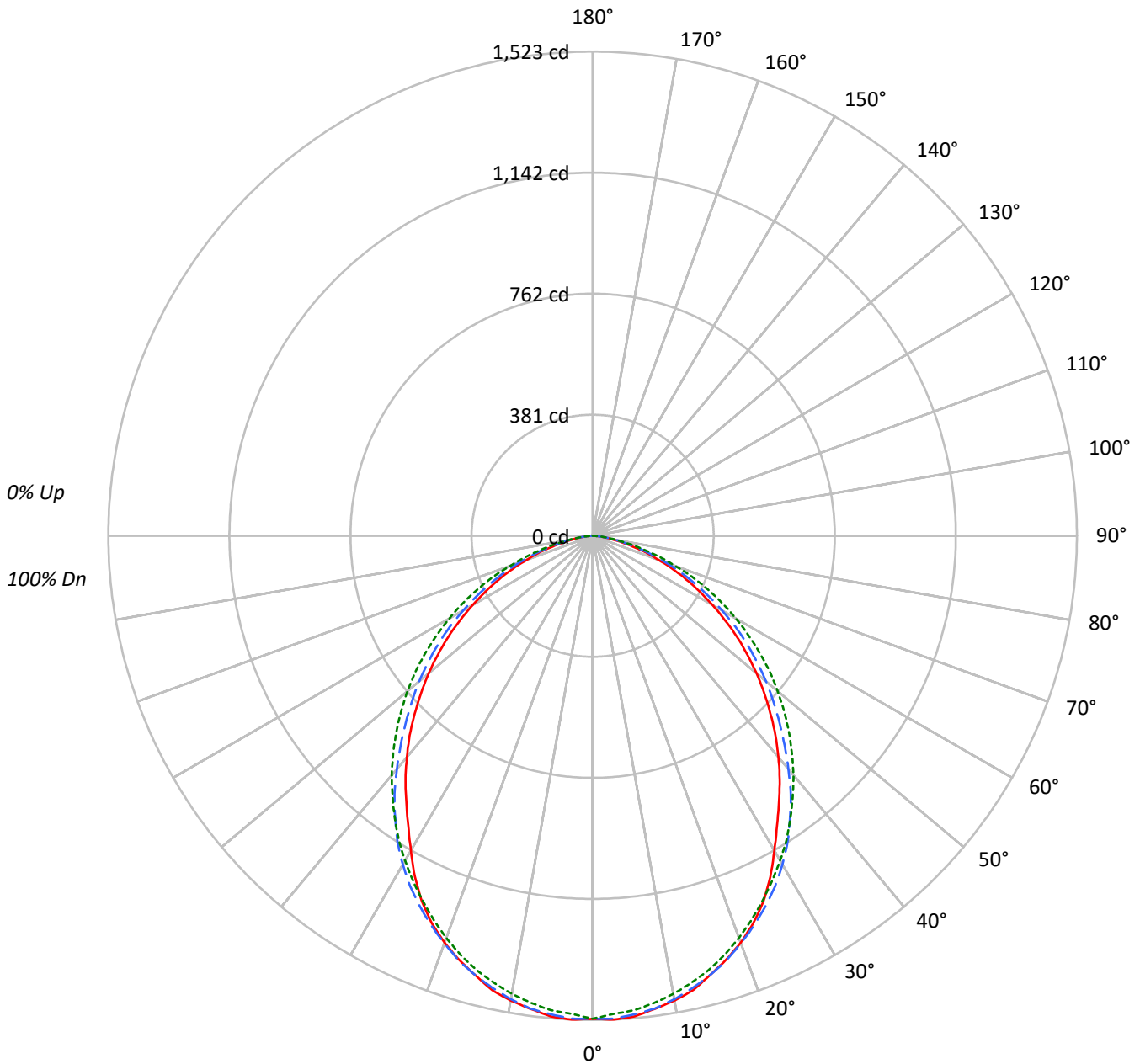
Lumens per Lamp: N/A  
Luminaire Lumens: 3513.0 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
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

TEST NUMBER: P556875

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-81-94-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P556875

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-81-94-EDD

**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°	4088	4088	4088
5°	4099	4082	4047
10°	4056	4045	3998
15°	3984	3984	3938
20°	3899	3904	3854
25°	3771	3818	3757
30°	3551	3711	3665
35°	3355	3557	3563
40°	3192	3365	3453
45°	3010	3161	3323
50°	2817	2979	3181
55°	2599	2771	3009
60°	2340	2529	2799
65°	2066	2248	2546
70°	1722	1915	2163
75°	1354	1529	1693
80°	969	1077	1193
85°	630	630	596



TEST NUMBER: P556875

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-81-94-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.0	4.1
10°-20°	401.9	11.4
20°-30°	587.2	16.7
30°-40°	666.6	19.0
40°-50°	643.5	18.3
50°-60°	530.8	15.1
60°-70°	353.5	10.1
70°-80°	158.2	4.5
80°-90°	28.3	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°	1132.1	32.2
0°-40°	1798.7	51.2
0°-60°	2973.0	84.6
0°-90°	3513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3513.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1519	1519	1519	1519	1519	
5°	1518	1517	1511	1503	1498	144
15°	1430	1434	1430	1424	1414	403
25°	1270	1280	1286	1276	1265	582
35°	1021	1035	1083	1088	1084	640
45°	791	804	831	868	873	610
55°	554	563	591	623	641	494
65°	324	333	353	378	400	322
75°	130	137	147	154	163	142
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



TEST NUMBER: P556875

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-81-94-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1519.3	1519.3	1519.3	1519.3	1519.3
2.5°	1523.4	1524.0	1520.4	1511.1	1505.3
5°	1517.5	1516.9	1511.1	1502.9	1498.3
7.5°	1500.6	1501.8	1500.0	1488.3	1481.9
10°	1484.3	1484.8	1480.2	1470.8	1463.2
12.5°	1463.2	1462.7	1456.2	1451.6	1439.3
15°	1430.0	1433.5	1430.0	1423.6	1413.6
17.5°	1397.9	1397.9	1400.2	1389.1	1381.5
20°	1361.7	1363.4	1363.4	1354.7	1345.9
22.5°	1319.7	1324.9	1326.7	1317.3	1306.8
25°	1270.1	1280.0	1285.8	1276.5	1265.4
27.5°	1209.9	1225.1	1242.6	1235.6	1223.4
30°	1142.8	1165.0	1194.2	1188.3	1179.6
32.5°	1079.2	1101.4	1141.7	1139.3	1134.6
35°	1021.4	1035.4	1082.7	1088.5	1084.5
37.5°	966.6	979.4	1023.7	1037.2	1033.7
40°	908.8	922.8	957.8	981.7	982.9
42.5°	851.6	865.0	893.6	928.0	928.0
45°	790.9	804.3	830.6	868.5	873.2
47.5°	731.3	745.3	771.0	809.0	816.5
50°	673.0	685.8	711.5	748.3	759.9
52.5°	612.3	626.3	651.4	685.2	702.1
55°	553.9	563.2	590.7	623.4	641.4
57.5°	493.2	502.0	532.9	560.9	579.6
60°	434.8	445.9	469.9	498.5	520.0
62.5°	378.8	390.5	410.9	436.0	460.5
65°	324.5	333.3	353.1	378.2	399.8
67.5°	272.0	279.6	299.4	316.9	339.7
70°	218.9	228.8	243.4	260.3	274.9
72.5°	176.3	180.4	192.6	204.9	220.0
75°	130.2	137.2	147.1	154.1	162.8
77.5°	93.4	97.5	103.3	109.1	117.3
80°	62.5	64.2	69.5	70.6	77.0
82.5°	37.9	39.1	40.3	40.9	43.2
85°	20.4	20.4	20.4	19.3	19.3
87.5°	11.7	11.7	9.9	8.2	5.8
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)