

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: P556727

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-80-87-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: P556727  
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-35-UNV-80-87-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

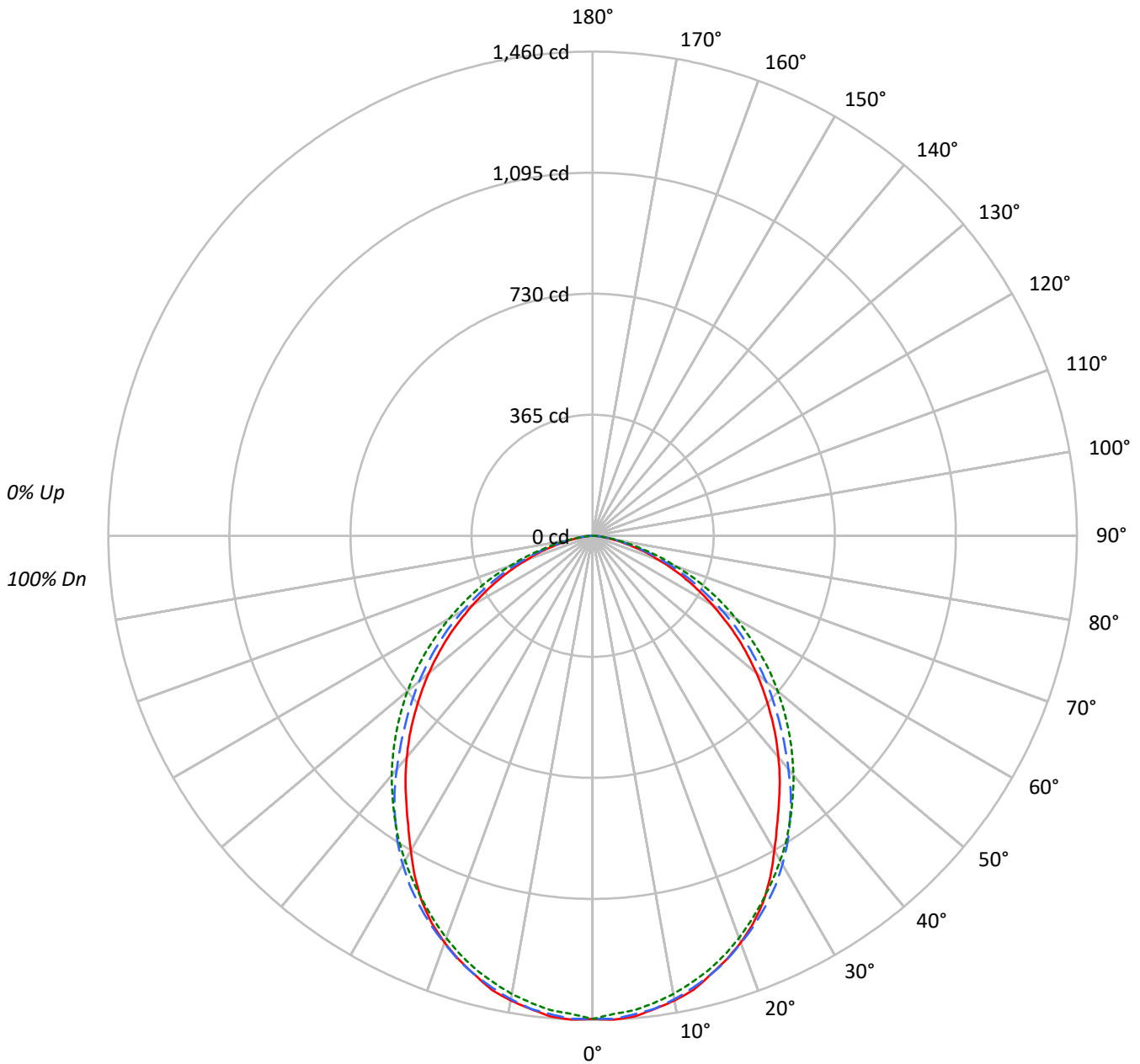
Lumens per Lamp: N/A  
Luminaire Lumens: 3368.0 lumens  
Efficiency: N/A  
Efficacy: 101.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (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°	3920	3920	3920
5°	3930	3913	3880
10°	3888	3878	3833
15°	3819	3819	3776
20°	3739	3743	3695
25°	3615	3660	3602
30°	3404	3558	3514
35°	3217	3410	3415
40°	3061	3226	3310
45°	2885	3030	3186
50°	2701	2856	3050
55°	2491	2657	2885
60°	2244	2425	2683
65°	1981	2155	2441
70°	1651	1836	2074
75°	1298	1466	1623
80°	928	1032	1145
85°	605	605	571



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.1	4.1
10°-20°	385.3	11.4
20°-30°	563.0	16.7
30°-40°	639.1	19.0
40°-50°	616.9	18.3
50°-60°	508.9	15.1
60°-70°	338.9	10.1
70°-80°	151.6	4.5
80°-90°	27.1	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°	1085.4	32.2
0°-40°	1724.5	51.2
0°-60°	2850.3	84.6
0°-90°	3368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3368.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1455	1454	1449	1441	1436	138
15°	1371	1374	1371	1365	1355	386
25°	1218	1227	1233	1224	1213	558
35°	979	993	1038	1044	1040	614
45°	758	771	796	833	837	585
55°	531	540	566	598	615	474
65°	311	320	338	363	383	309
75°	125	132	141	148	156	136
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1456.6	1456.6	1456.6	1456.6	1456.6
2.5°	1460.5	1461.0	1457.7	1448.7	1443.1
5°	1454.9	1454.3	1448.7	1440.9	1436.4
7.5°	1438.7	1439.8	1438.1	1426.9	1420.8
10°	1423.0	1423.6	1419.1	1410.1	1402.9
12.5°	1402.9	1402.3	1396.1	1391.7	1379.9
15°	1371.0	1374.3	1371.0	1364.8	1355.3
17.5°	1340.2	1340.2	1342.4	1331.8	1324.5
20°	1305.5	1307.2	1307.2	1298.8	1290.4
22.5°	1265.2	1270.2	1271.9	1263.0	1252.9
25°	1217.6	1227.1	1232.7	1223.8	1213.2
27.5°	1160.0	1174.5	1191.3	1184.6	1172.9
30°	1095.6	1116.9	1144.9	1139.3	1130.9
32.5°	1034.7	1055.9	1094.5	1092.3	1087.8
35°	979.3	992.7	1038.0	1043.6	1039.7
37.5°	926.7	939.0	981.5	994.4	991.0
40°	871.3	884.7	918.3	941.2	942.3
42.5°	816.4	829.3	856.7	889.7	889.7
45°	758.2	771.1	796.3	832.6	837.1
47.5°	701.1	714.6	739.2	775.6	782.8
50°	645.2	657.5	682.1	717.4	728.6
52.5°	587.0	600.4	624.5	656.9	673.2
55°	531.0	540.0	566.3	597.6	615.0
57.5°	472.8	481.2	510.9	537.8	555.7
60°	416.9	427.5	450.5	477.9	498.6
62.5°	363.2	374.4	393.9	418.0	441.5
65°	311.1	319.5	338.5	362.6	383.3
67.5°	260.8	268.0	287.1	303.8	325.7
70°	209.8	219.4	233.3	249.6	263.6
72.5°	169.0	172.9	184.7	196.4	211.0
75°	124.8	131.5	141.0	147.7	156.1
77.5°	89.5	93.4	99.0	104.6	112.5
80°	59.9	61.6	66.6	67.7	73.9
82.5°	36.4	37.5	38.6	39.2	41.4
85°	19.6	19.6	19.6	18.5	18.5
87.5°	11.2	11.2	9.5	7.8	5.6
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)