

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: P556668

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-80-96-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: P556668  
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-30-UNV-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

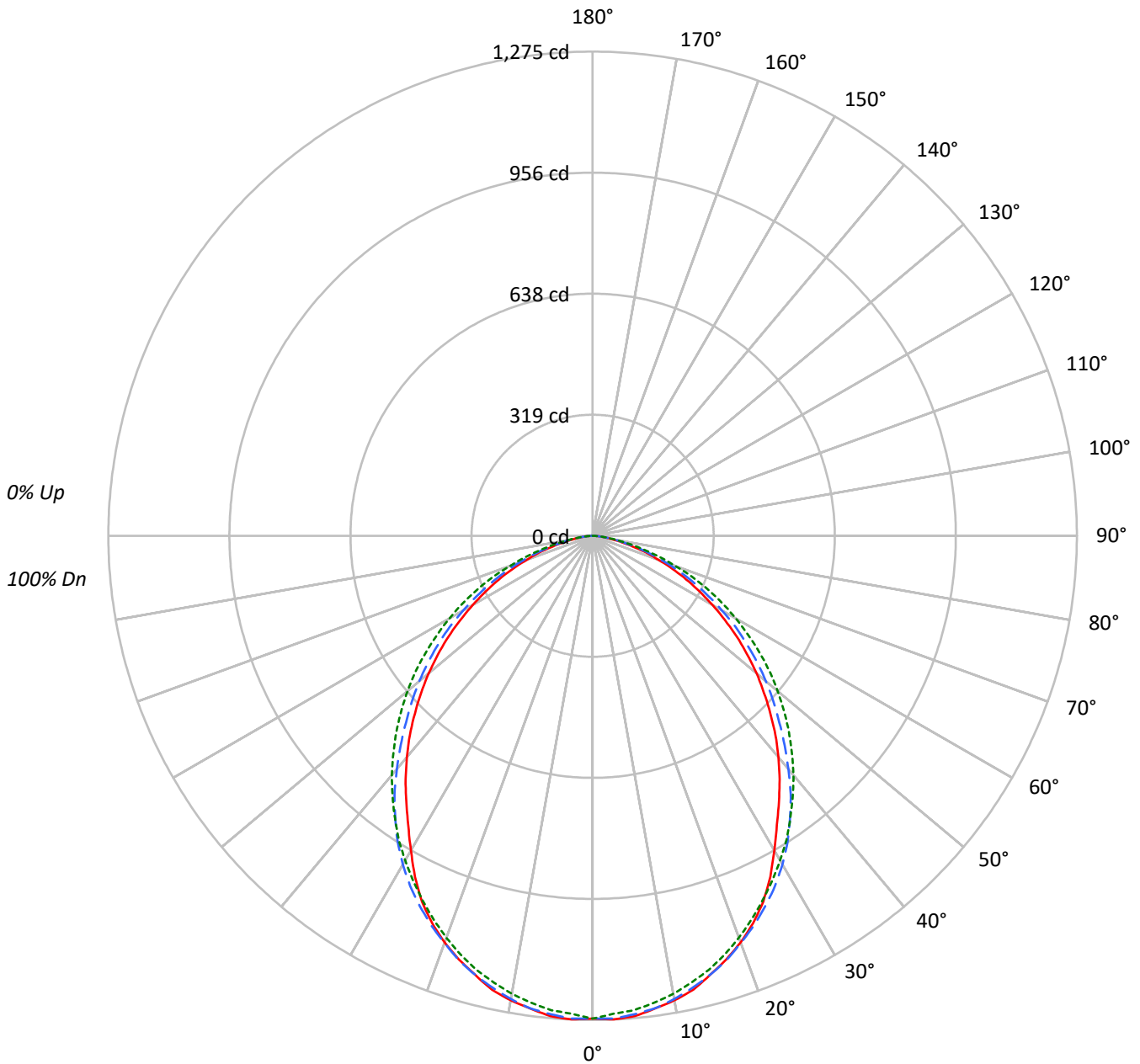
Lumens per Lamp: N/A  
Luminaire Lumens: 2940.0 lumens  
Efficiency: N/A  
Efficacy: 88.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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

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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°	3422	3422	3422
5°	3431	3416	3387
10°	3394	3385	3346
15°	3334	3334	3296
20°	3263	3268	3226
25°	3156	3195	3144
30°	2972	3105	3068
35°	2808	2977	2982
40°	2672	2816	2890
45°	2519	2645	2781
50°	2358	2493	2663
55°	2175	2319	2518
60°	1958	2116	2342
65°	1729	1882	2131
70°	1441	1603	1810
75°	1132	1280	1417
80°	810	900	1000
85°	528	528	497



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.7	4.1
10°-20°	336.3	11.4
20°-30°	491.5	16.7
30°-40°	557.9	19.0
40°-50°	538.5	18.3
50°-60°	444.2	15.1
60°-70°	295.8	10.1
70°-80°	132.4	4.5
80°-90°	23.7	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°	947.5	32.2
0°-40°	1505.3	51.2
0°-60°	2488.1	84.6
0°-90°	2940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2940.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1272	1272	1272	1272	1272	
5°	1270	1270	1265	1258	1254	120
15°	1197	1200	1197	1191	1183	337
25°	1063	1071	1076	1068	1059	487
35°	855	866	906	911	908	536
45°	662	673	695	727	731	511
55°	464	471	494	522	537	414
65°	272	279	296	316	335	269
75°	109	115	123	129	136	119
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1271.5	1271.5	1271.5	1271.5	1271.5
2.5°	1274.9	1275.4	1272.5	1264.6	1259.8
5°	1270.0	1269.5	1264.6	1257.8	1253.9
7.5°	1255.8	1256.8	1255.4	1245.6	1240.2
10°	1242.2	1242.7	1238.7	1230.9	1224.6
12.5°	1224.6	1224.1	1218.7	1214.8	1204.6
15°	1196.7	1199.7	1196.7	1191.4	1183.1
17.5°	1169.9	1169.9	1171.8	1162.5	1156.2
20°	1139.6	1141.1	1141.1	1133.7	1126.4
22.5°	1104.4	1108.8	1110.3	1102.5	1093.7
25°	1062.9	1071.2	1076.1	1068.3	1059.0
27.5°	1012.6	1025.3	1039.9	1034.1	1023.8
30°	956.4	975.0	999.4	994.5	987.2
32.5°	903.2	921.7	955.4	953.5	949.6
35°	854.8	866.5	906.1	911.0	907.6
37.5°	808.9	819.6	856.8	868.0	865.1
40°	760.5	772.3	801.6	821.6	822.6
42.5°	712.7	723.9	747.8	776.7	776.7
45°	661.9	673.1	695.1	726.8	730.7
47.5°	612.0	623.8	645.3	677.0	683.4
50°	563.2	573.9	595.4	626.2	636.0
52.5°	512.4	524.1	545.1	573.5	587.6
55°	463.6	471.4	494.3	521.7	536.8
57.5°	412.8	420.1	446.0	469.4	485.0
60°	363.9	373.2	393.2	417.1	435.2
62.5°	317.0	326.8	343.9	364.9	385.4
65°	271.6	278.9	295.5	316.5	334.6
67.5°	227.6	234.0	250.6	265.2	284.3
70°	183.2	191.5	203.7	217.9	230.1
72.5°	147.5	150.9	161.2	171.5	184.2
75°	108.9	114.8	123.1	129.0	136.3
77.5°	78.2	81.6	86.5	91.3	98.2
80°	52.3	53.7	58.1	59.1	64.5
82.5°	31.8	32.7	33.7	34.2	36.1
85°	17.1	17.1	17.1	16.1	16.1
87.5°	9.8	9.8	8.3	6.8	4.9
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)