

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: P556729

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-80-88-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: P556729  
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-80-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

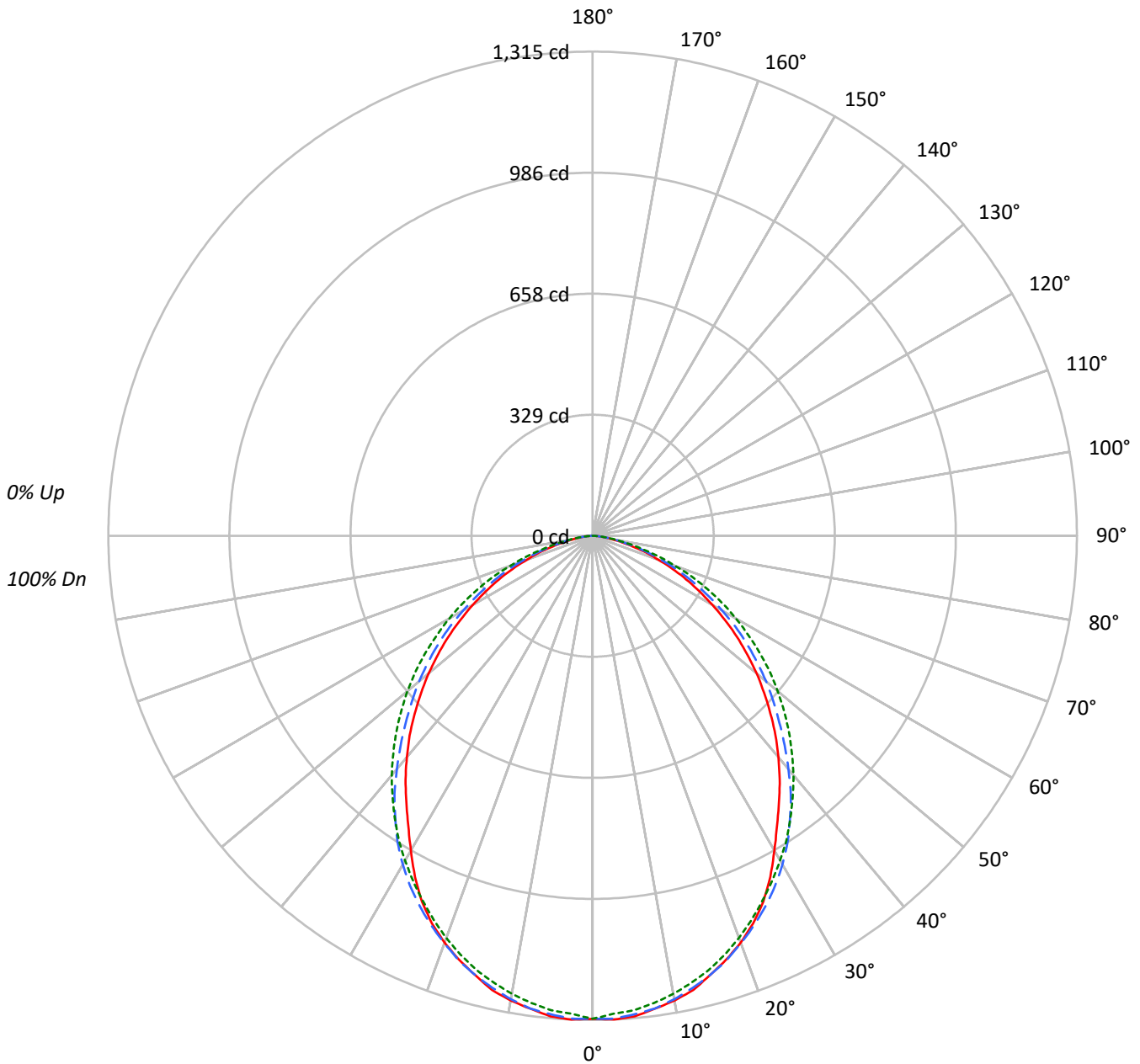
Lumens per Lamp: N/A  
Luminaire Lumens: 3033.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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

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

	0°	45°	90°
0°	3530	3530	3530
5°	3539	3524	3494
10°	3502	3492	3452
15°	3439	3439	3400
20°	3367	3371	3328
25°	3256	3296	3244
30°	3066	3204	3164
35°	2897	3071	3076
40°	2756	2905	2981
45°	2598	2729	2869
50°	2432	2572	2747
55°	2244	2393	2598
60°	2020	2183	2416
65°	1784	1941	2198
70°	1487	1653	1867
75°	1169	1320	1462
80°	835	930	1031
85°	543	543	513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.5	4.1
10°-20°	346.9	11.4
20°-30°	507.0	16.7
30°-40°	575.5	19.0
40°-50°	555.6	18.3
50°-60°	458.3	15.1
60°-70°	305.2	10.1
70°-80°	136.6	4.5
80°-90°	24.4	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°	977.4	32.2
0°-40°	1553.0	51.2
0°-60°	2566.8	84.6
0°-90°	3033.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3033.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1310	1310	1305	1298	1294	124
15°	1235	1238	1235	1229	1220	348
25°	1096	1105	1110	1102	1092	502
35°	882	894	935	940	936	553
45°	683	694	717	750	754	527
55°	478	486	510	538	554	427
65°	280	288	305	326	345	278
75°	112	118	127	133	141	123
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1311.7	1311.7	1311.7	1311.7	1311.7
2.5°	1315.2	1315.7	1312.7	1304.6	1299.6
5°	1310.2	1309.7	1304.6	1297.6	1293.6
7.5°	1295.6	1296.6	1295.1	1285.0	1279.4
10°	1281.5	1282.0	1277.9	1269.9	1263.3
12.5°	1263.3	1262.8	1257.3	1253.2	1242.7
15°	1234.6	1237.6	1234.6	1229.1	1220.5
17.5°	1206.9	1206.9	1208.9	1199.3	1192.8
20°	1175.6	1177.1	1177.1	1169.6	1162.0
22.5°	1139.4	1143.9	1145.4	1137.3	1128.3
25°	1096.5	1105.1	1110.1	1102.1	1092.5
27.5°	1044.6	1057.7	1072.8	1066.8	1056.2
30°	986.7	1005.8	1031.0	1026.0	1018.4
32.5°	931.7	950.9	985.7	983.6	979.6
35°	881.9	893.9	934.8	939.8	936.3
37.5°	834.5	845.6	883.9	895.5	892.4
40°	784.6	796.7	826.9	847.6	848.6
42.5°	735.2	746.8	771.5	801.2	801.2
45°	682.8	694.4	717.1	749.8	753.9
47.5°	631.4	643.5	665.7	698.4	705.0
50°	581.0	592.1	614.3	646.0	656.1
52.5°	528.6	540.7	562.4	591.6	606.2
55°	478.2	486.3	510.0	538.2	553.8
57.5°	425.8	433.4	460.1	484.3	500.4
60°	375.4	385.0	405.7	430.3	449.0
62.5°	327.0	337.1	354.8	376.4	397.6
65°	280.2	287.7	304.9	326.5	345.2
67.5°	234.8	241.4	258.5	273.6	293.3
70°	189.0	197.5	210.1	224.7	237.3
72.5°	152.2	155.7	166.3	176.9	190.0
75°	112.4	118.4	127.0	133.0	140.6
77.5°	80.6	84.2	89.2	94.2	101.3
80°	53.9	55.4	60.0	61.0	66.5
82.5°	32.8	33.8	34.8	35.3	37.3
85°	17.6	17.6	17.6	16.6	16.6
87.5°	10.1	10.1	8.6	7.1	5.0
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)