

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: P556667

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-80-94-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: P556667  
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-80-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

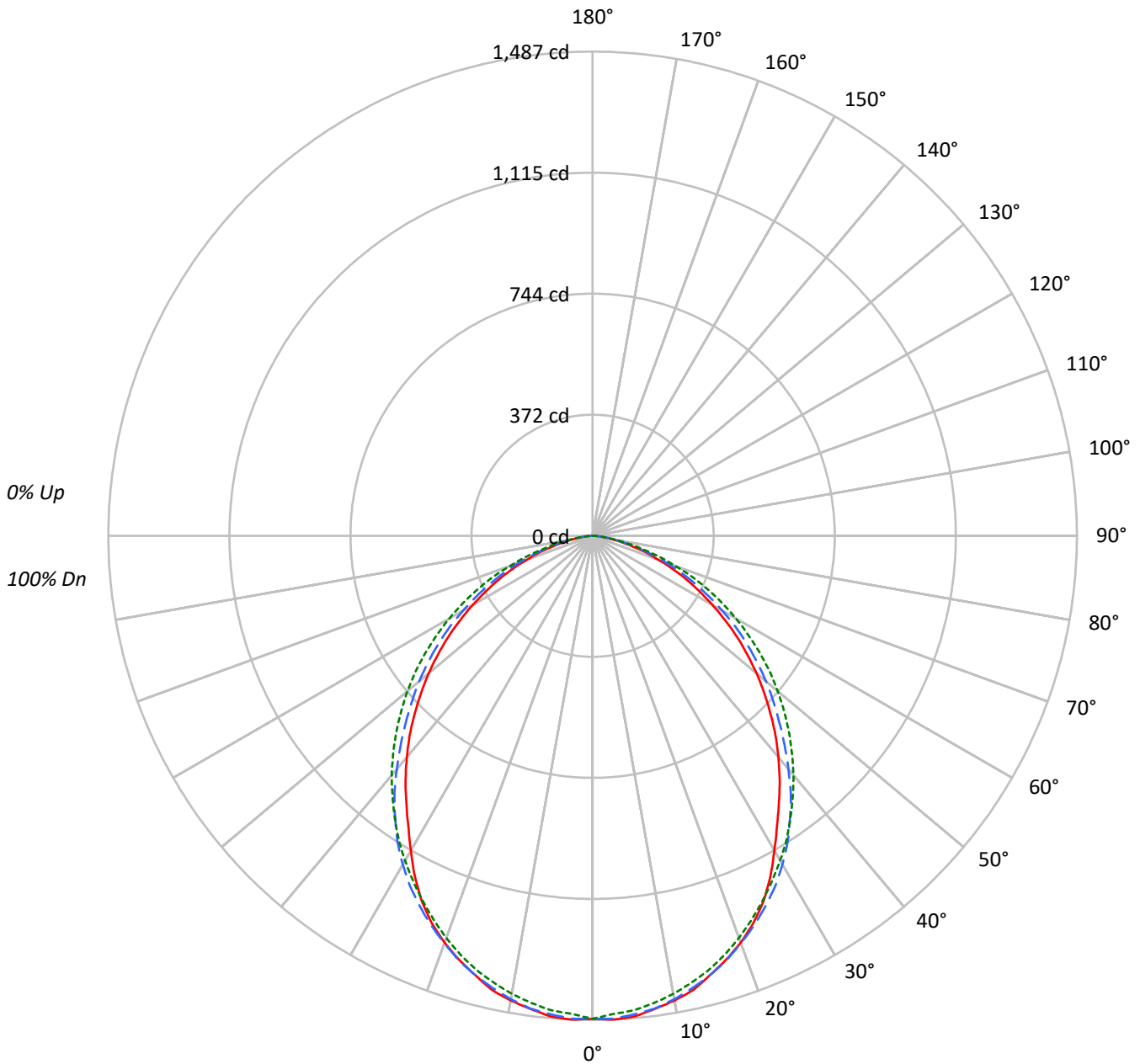
Lumens per Lamp: N/A  
Luminaire Lumens: 3430.0 lumens  
Efficiency: N/A  
Efficacy: 103.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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					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								
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°	3992	3992	3992
5°	4002	3985	3952
10°	3960	3949	3904
15°	3890	3890	3845
20°	3807	3812	3763
25°	3682	3727	3668
30°	3467	3623	3579
35°	3276	3473	3478
40°	3117	3285	3371
45°	2939	3086	3244
50°	2751	2908	3106
55°	2537	2706	2938
60°	2285	2469	2733
65°	2018	2195	2486
70°	1681	1869	2112
75°	1321	1493	1653
80°	945	1051	1165
85°	614	614	580



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.7	4.1
10°-20°	392.4	11.4
20°-30°	573.4	16.7
30°-40°	650.8	19.0
40°-50°	628.3	18.3
50°-60°	518.3	15.1
60°-70°	345.1	10.1
70°-80°	154.4	4.5
80°-90°	27.6	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°	1105.4	32.2
0°-40°	1756.2	51.2
0°-60°	2902.8	84.6
0°-90°	3430.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3430.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1483	1483	1483	1483	1483	
5°	1482	1481	1475	1467	1463	140
15°	1396	1400	1396	1390	1380	394
25°	1240	1250	1255	1246	1236	568
35°	997	1011	1057	1063	1059	625
45°	772	785	811	848	852	596
55°	541	550	577	609	626	483
65°	317	325	345	369	390	314
75°	127	134	144	150	159	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1483.4	1483.4	1483.4	1483.4	1483.4
2.5°	1487.4	1487.9	1484.5	1475.4	1469.7
5°	1481.7	1481.1	1475.4	1467.4	1462.9
7.5°	1465.2	1466.3	1464.6	1453.2	1446.9
10°	1449.2	1449.8	1445.2	1436.1	1428.7
12.5°	1428.7	1428.1	1421.8	1417.3	1405.3
15°	1396.2	1399.6	1396.2	1389.9	1380.2
17.5°	1364.9	1364.9	1367.1	1356.3	1348.9
20°	1329.5	1331.2	1331.2	1322.7	1314.1
22.5°	1288.5	1293.6	1295.3	1286.2	1276.0
25°	1240.0	1249.7	1255.4	1246.3	1235.5
27.5°	1181.4	1196.2	1213.3	1206.4	1194.5
30°	1115.8	1137.5	1166.0	1160.3	1151.7
32.5°	1053.7	1075.4	1114.7	1112.4	1107.8
35°	997.3	1011.0	1057.1	1062.8	1058.8
37.5°	943.7	956.3	999.6	1012.7	1009.2
40°	887.3	901.0	935.2	958.5	959.7
42.5°	831.4	844.6	872.5	906.1	906.1
45°	772.2	785.3	810.9	848.0	852.5
47.5°	714.1	727.7	752.8	789.8	797.3
50°	657.1	669.6	694.7	730.6	742.0
52.5°	597.8	611.5	636.0	669.0	685.6
55°	540.8	549.9	576.7	608.6	626.3
57.5°	481.5	490.1	520.3	547.7	565.9
60°	424.6	435.4	458.7	486.7	507.8
62.5°	369.8	381.2	401.2	425.7	449.6
65°	316.9	325.4	344.8	369.3	390.4
67.5°	265.6	273.0	292.3	309.4	331.7
70°	213.7	223.4	237.6	254.2	268.4
72.5°	172.1	176.1	188.1	200.0	214.8
75°	127.1	133.9	143.6	150.4	159.0
77.5°	91.2	95.2	100.9	106.6	114.5
80°	61.0	62.7	67.8	69.0	75.2
82.5°	37.0	38.2	39.3	39.9	42.2
85°	19.9	19.9	19.9	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)