

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: P556862

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-80-97-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: P556862  
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-80-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

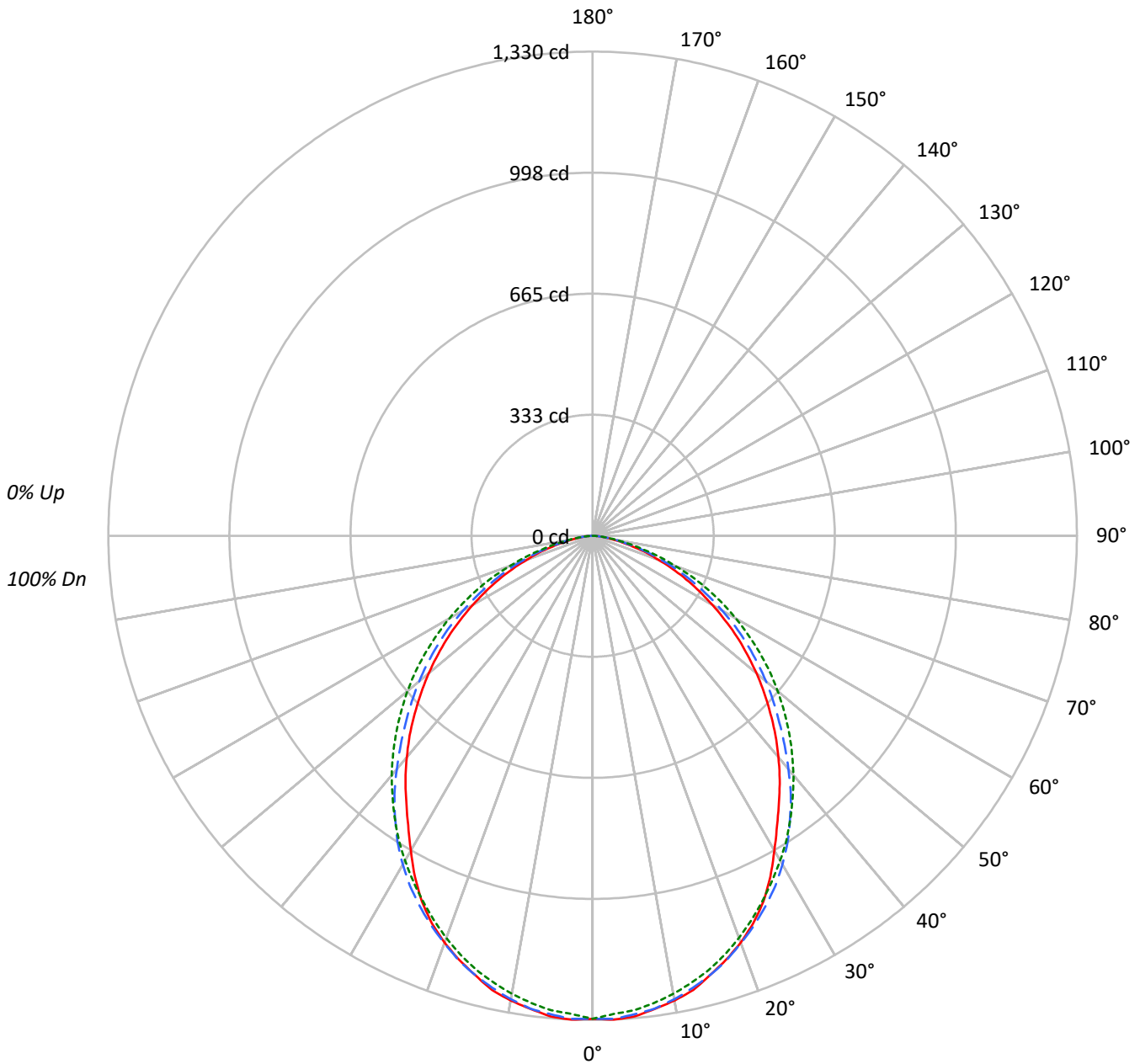
Lumens per Lamp: N/A  
Luminaire Lumens: 3068.0 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (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°	3570	3570	3570
5°	3580	3565	3535
10°	3542	3532	3492
15°	3479	3479	3439
20°	3405	3410	3366
25°	3293	3334	3281
30°	3101	3241	3201
35°	2930	3106	3111
40°	2788	2938	3015
45°	2629	2760	2902
50°	2460	2601	2779
55°	2269	2420	2628
60°	2044	2208	2444
65°	1805	1964	2223
70°	1504	1673	1889
75°	1182	1336	1478
80°	845	941	1043
85°	550	550	519



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.9	4.1
10°-20°	350.9	11.4
20°-30°	512.9	16.7
30°-40°	582.1	19.0
40°-50°	562.0	18.3
50°-60°	463.6	15.1
60°-70°	308.7	10.1
70°-80°	138.1	4.5
80°-90°	24.7	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°	988.7	32.2
0°-40°	1570.9	51.2
0°-60°	2596.4	84.6
0°-90°	3068.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3068.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1325	1325	1320	1313	1308	125
15°	1249	1252	1249	1243	1235	352
25°	1109	1118	1123	1115	1105	508
35°	892	904	946	951	947	559
45°	691	702	725	758	763	533
55°	484	492	516	544	560	432
65°	283	291	308	330	349	281
75°	114	120	128	135	142	124
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°	1326.8	1326.8	1326.8	1326.8	1326.8
2.5°	1330.4	1330.9	1327.9	1319.7	1314.6
5°	1325.3	1324.8	1319.7	1312.6	1308.5
7.5°	1310.5	1311.5	1310.0	1299.8	1294.2
10°	1296.2	1296.8	1292.7	1284.5	1277.9
12.5°	1277.9	1277.4	1271.8	1267.7	1257.0
15°	1248.8	1251.9	1248.8	1243.2	1234.6
17.5°	1220.8	1220.8	1222.8	1213.2	1206.5
20°	1189.2	1190.7	1190.7	1183.1	1175.4
22.5°	1152.5	1157.1	1158.6	1150.5	1141.3
25°	1109.2	1117.8	1122.9	1114.8	1105.1
27.5°	1056.7	1069.9	1085.2	1079.1	1068.4
30°	998.1	1017.4	1042.9	1037.8	1030.2
32.5°	942.5	961.9	997.0	995.0	990.9
35°	892.0	904.3	945.6	950.6	947.1
37.5°	844.1	855.3	894.1	905.8	902.7
40°	793.7	805.9	836.5	857.4	858.4
42.5°	743.7	755.4	780.4	810.5	810.5
45°	690.7	702.4	725.3	758.5	762.6
47.5°	638.7	650.9	673.4	706.5	713.1
50°	587.7	598.9	621.4	653.5	663.7
52.5°	534.7	546.9	568.9	598.4	613.2
55°	483.7	491.9	515.8	544.4	560.2
57.5°	430.7	438.4	465.4	489.9	506.2
60°	379.7	389.4	410.3	435.3	454.2
62.5°	330.8	341.0	358.9	380.8	402.2
65°	283.4	291.1	308.4	330.3	349.2
67.5°	237.5	244.2	261.5	276.8	296.7
70°	191.1	199.8	212.6	227.3	240.1
72.5°	153.9	157.5	168.2	178.9	192.2
75°	113.7	119.8	128.5	134.6	142.2
77.5°	81.6	85.1	90.2	95.3	102.5
80°	54.5	56.1	60.7	61.7	67.3
82.5°	33.1	34.2	35.2	35.7	37.7
85°	17.8	17.8	17.8	16.8	16.8
87.5°	10.2	10.2	8.7	7.1	5.1
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)