

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: P556537

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-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: P556537  
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-LD4-1LO-40-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

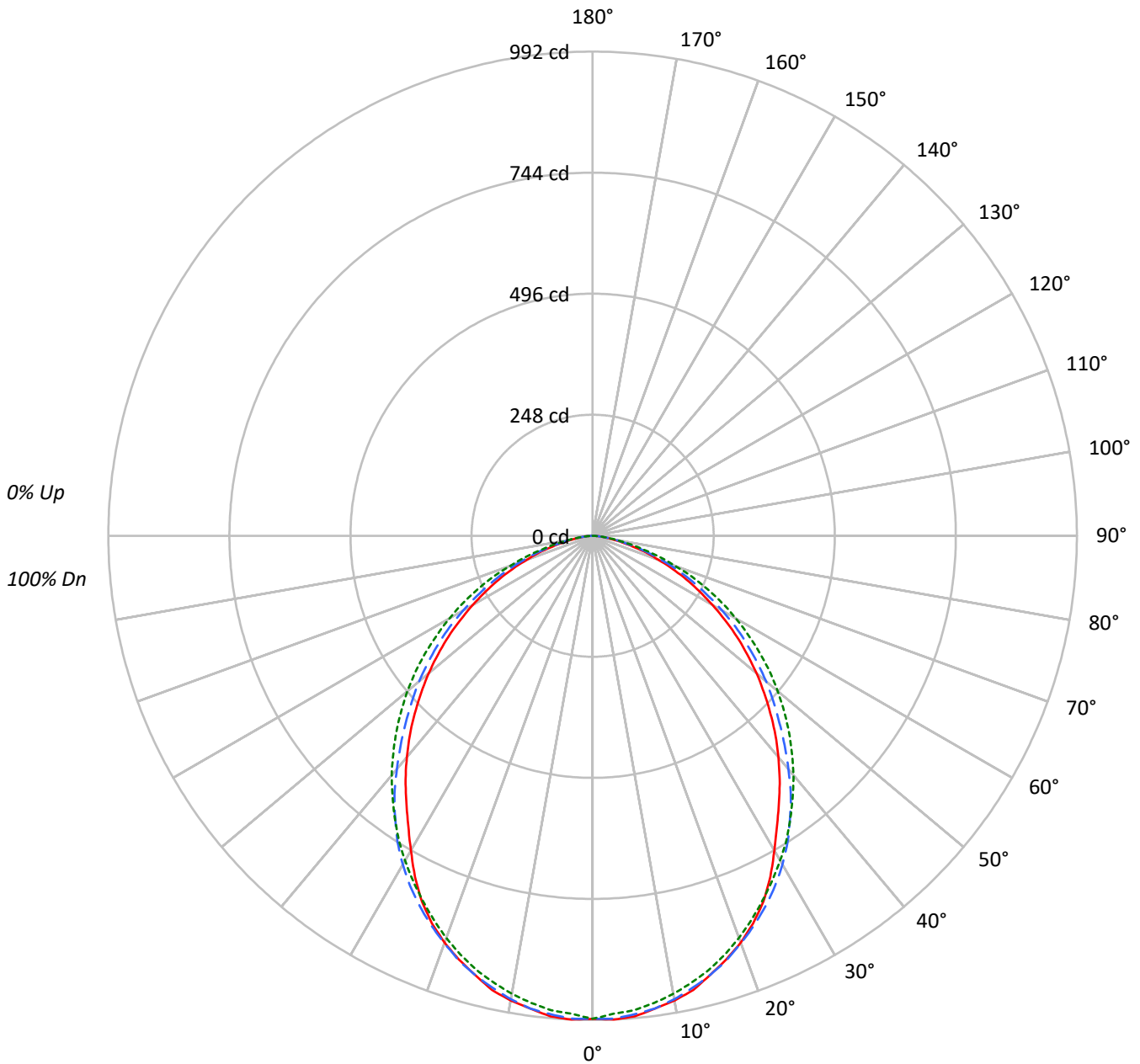
Lumens per Lamp: N/A  
Luminaire Lumens: 2288.0 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	2663	2663	2663
5°	2670	2659	2636
10°	2641	2634	2604
15°	2595	2595	2565
20°	2540	2543	2510
25°	2456	2486	2447
30°	2313	2417	2387
35°	2185	2317	2320
40°	2079	2191	2249
45°	1960	2058	2164
50°	1835	1940	2072
55°	1693	1805	1960
60°	1524	1647	1823
65°	1346	1465	1658
70°	1122	1247	1408
75°	882	996	1103
80°	631	700	778
85°	411	411	386



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	4.1
10°-20°	261.7	11.4
20°-30°	382.5	16.7
30°-40°	434.2	19.0
40°-50°	419.1	18.3
50°-60°	345.7	15.1
60°-70°	230.2	10.1
70°-80°	103.0	4.5
80°-90°	18.4	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°	737.4	32.2
0°-40°	1171.5	51.2
0°-60°	1936.3	84.6
0°-90°	2288.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2288.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	988	988	984	979	976	94
15°	931	934	931	927	921	263
25°	827	834	837	831	824	379
35°	665	674	705	709	706	417
45°	515	524	541	566	569	397
55°	361	367	385	406	418	322
65°	211	217	230	246	260	210
75°	85	89	96	100	106	93
85°	13	13	13	12	12	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	989.5	989.5	989.5	989.5	989.5
2.5°	992.2	992.5	990.3	984.2	980.4
5°	988.4	988.0	984.2	978.9	975.8
7.5°	977.3	978.1	977.0	969.4	965.2
10°	966.7	967.1	964.0	957.9	953.0
12.5°	953.0	952.6	948.4	945.4	937.4
15°	931.3	933.6	931.3	927.2	920.7
17.5°	910.4	910.4	912.0	904.7	899.8
20°	886.9	888.0	888.0	882.3	876.6
22.5°	859.5	862.9	864.1	858.0	851.1
25°	827.2	833.6	837.4	831.4	824.1
27.5°	788.0	797.9	809.3	804.8	796.8
30°	744.3	758.8	777.8	774.0	768.3
32.5°	702.9	717.3	743.6	742.0	739.0
35°	665.2	674.4	705.2	709.0	706.3
37.5°	629.5	637.9	666.8	675.5	673.2
40°	591.9	601.0	623.8	639.4	640.2
42.5°	554.6	563.4	582.0	604.4	604.4
45°	515.1	523.8	540.9	565.6	568.7
47.5°	476.3	485.4	502.2	526.9	531.8
50°	438.3	446.7	463.4	487.3	494.9
52.5°	398.8	407.9	424.2	446.3	457.3
55°	360.8	366.8	384.7	406.0	417.8
57.5°	321.2	326.9	347.1	365.3	377.5
60°	283.2	290.4	306.0	324.6	338.7
62.5°	246.7	254.3	267.6	284.0	299.9
65°	211.4	217.1	230.0	246.3	260.4
67.5°	177.1	182.1	195.0	206.4	221.2
70°	142.6	149.0	158.5	169.5	179.0
72.5°	114.8	117.5	125.4	133.4	143.3
75°	84.8	89.3	95.8	100.4	106.1
77.5°	60.8	63.5	67.3	71.1	76.4
80°	40.7	41.8	45.2	46.0	50.2
82.5°	24.7	25.5	26.2	26.6	28.1
85°	13.3	13.3	13.3	12.5	12.5
87.5°	7.6	7.6	6.5	5.3	3.8
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)