

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: P557817

Luminaire Tested: **FUSL-12-4-LD4-3HI-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: P557817  
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-LD4-3HI-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**

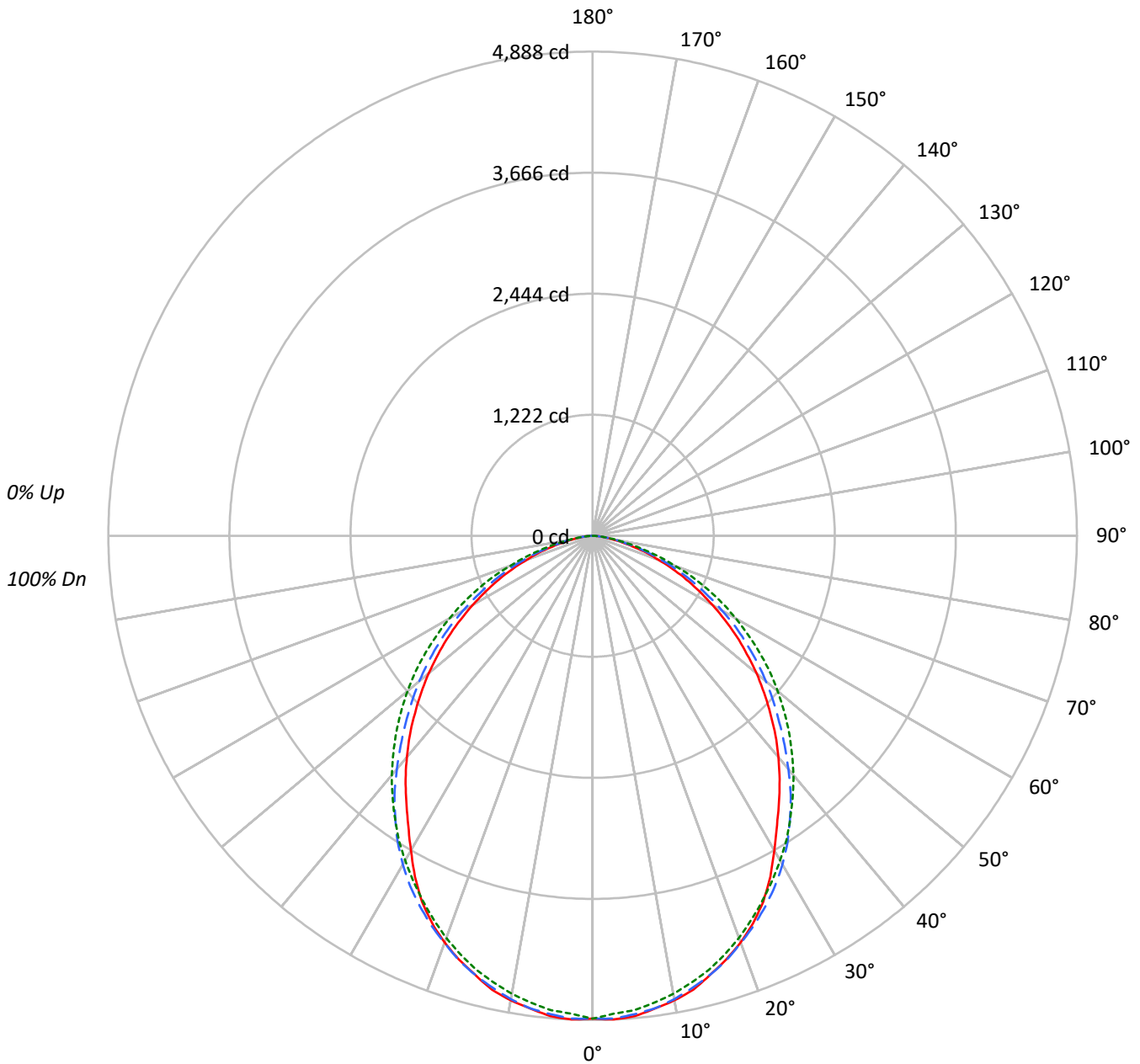
Lumens per Lamp: N/A  
Luminaire Lumens: 11272.0 lumens  
Efficiency: N/A  
Efficacy: 87.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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									
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°	13118	13118	13118
5°	13153	13097	12986
10°	13013	12978	12829
15°	12783	12783	12637
20°	12512	12528	12367
25°	12100	12250	12055
30°	11394	11906	11761
35°	10767	11412	11431
40°	10243	10796	11079
45°	9657	10142	10662
50°	9040	9557	10208
55°	8338	8892	9656
60°	7509	8114	8980
65°	6630	7214	8169
70°	5526	6144	6940
75°	4342	4906	5433
80°	3106	3454	3831
85°	2022	2022	1908



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	459.0	4.1
10°-20°	1289.4	11.4
20°-30°	1884.3	16.7
30°-40°	2138.8	19.0
40°-50°	2064.7	18.3
50°-60°	1703.2	15.1
60°-70°	1134.2	10.1
70°-80°	507.5	4.5
80°-90°	90.8	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°	3632.6	32.2
0°-40°	5771.5	51.2
0°-60°	9539.4	84.6
0°-90°	11272.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11272.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4875	4875	4875	4875	4875	
5°	4869	4867	4849	4822	4807	461
15°	4588	4600	4588	4568	4536	1293
25°	4075	4107	4126	4096	4060	1866
35°	3277	3322	3474	3493	3480	2053
45°	2538	2581	2665	2787	2802	1958
55°	1777	1807	1895	2000	2058	1586
65°	1041	1069	1133	1214	1283	1032
75°	418	440	472	494	522	457
85°	66	66	66	62	62	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4874.8	4874.8	4874.8	4874.8	4874.8
2.5°	4888.0	4889.8	4878.6	4848.6	4829.9
5°	4869.2	4867.4	4848.6	4822.4	4807.4
7.5°	4814.9	4818.7	4813.0	4775.6	4755.0
10°	4762.5	4764.4	4749.4	4719.4	4695.1
12.5°	4695.1	4693.2	4672.6	4657.6	4618.3
15°	4588.3	4599.6	4588.3	4567.7	4535.9
17.5°	4485.3	4485.3	4492.8	4457.2	4432.9
20°	4369.2	4374.8	4374.8	4346.7	4318.6
22.5°	4234.4	4251.2	4256.8	4226.9	4193.2
25°	4075.2	4107.0	4125.7	4095.8	4060.2
27.5°	3882.3	3931.0	3987.2	3964.7	3925.3
30°	3666.9	3738.1	3831.7	3813.0	3784.9
32.5°	3462.8	3533.9	3663.2	3655.7	3640.7
35°	3277.4	3322.3	3474.0	3492.7	3479.6
37.5°	3101.3	3142.5	3284.9	3327.9	3316.7
40°	2915.9	2960.9	3073.2	3150.0	3153.8
42.5°	2732.4	2775.5	2867.2	2977.7	2977.7
45°	2537.6	2580.7	2665.0	2786.7	2801.7
47.5°	2346.6	2391.5	2473.9	2595.7	2620.0
50°	2159.3	2200.5	2282.9	2400.9	2438.4
52.5°	1964.5	2009.5	2090.0	2198.6	2253.0
55°	1777.3	1807.2	1895.3	2000.1	2058.2
57.5°	1582.5	1610.6	1709.8	1799.7	1859.7
60°	1395.2	1430.8	1507.6	1599.4	1668.6
62.5°	1215.4	1252.9	1318.4	1399.0	1477.6
65°	1041.3	1069.4	1133.0	1213.6	1282.9
67.5°	872.7	897.1	960.7	1016.9	1090.0
70°	702.3	734.1	780.9	835.3	882.1
72.5°	565.6	578.7	618.0	657.3	706.0
75°	417.6	440.1	471.9	494.4	522.5
77.5°	299.6	312.8	331.5	350.2	376.4
80°	200.4	206.0	222.9	226.6	247.2
82.5°	121.7	125.5	129.2	131.1	138.6
85°	65.5	65.5	65.5	61.8	61.8
87.5°	37.5	37.5	31.8	26.2	18.7
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)