

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: P557887

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-80-97-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: P557887  
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-50-UNV-80-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

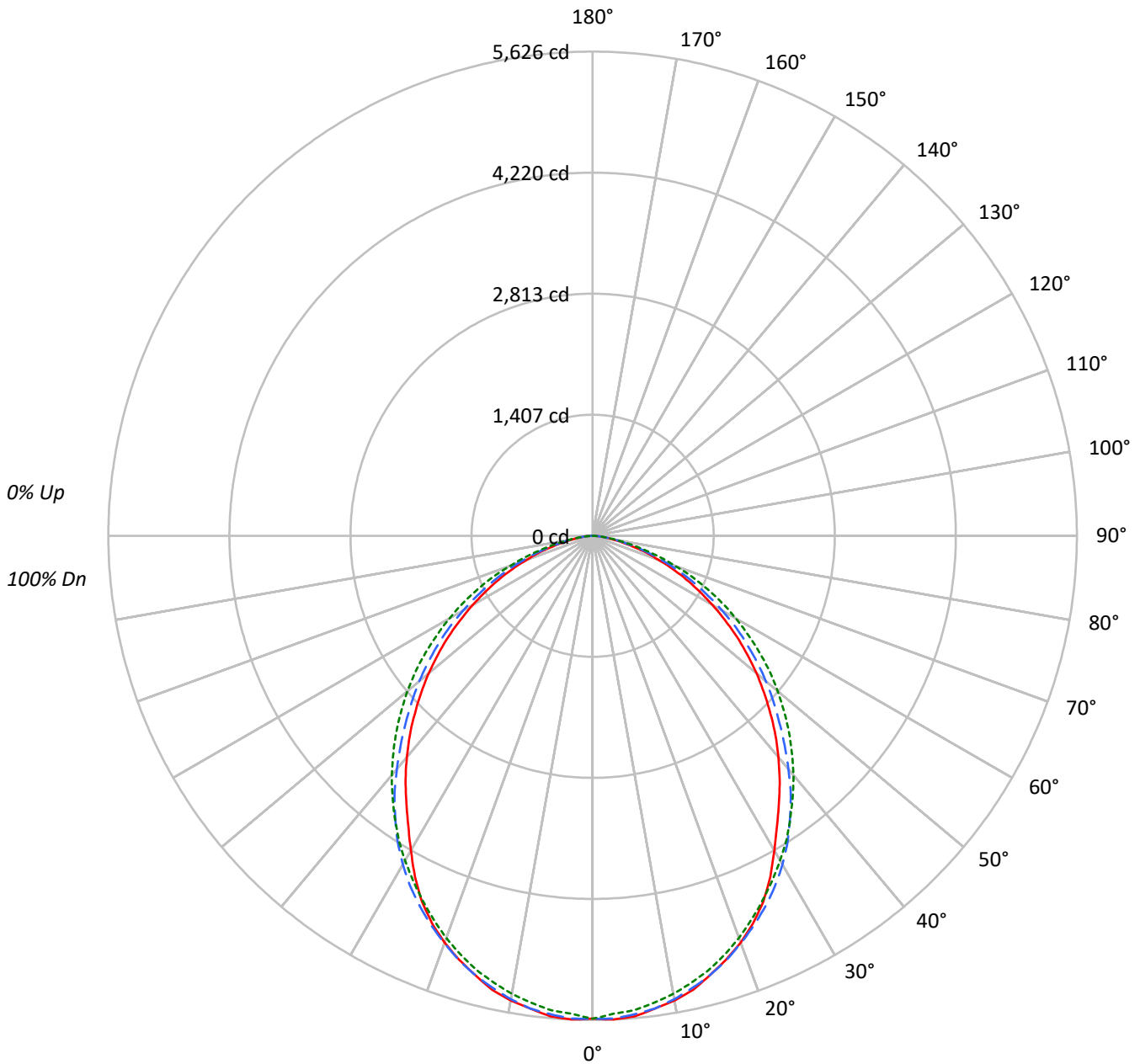
Lumens per Lamp: N/A  
Luminaire Lumens: 12975.0 lumens  
Efficiency: N/A  
Efficacy: 100.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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°	15100	15100	15100
5°	15140	15076	14948
10°	14980	14938	14767
15°	14714	14714	14546
20°	14402	14421	14236
25°	13928	14101	13877
30°	13115	13705	13537
35°	12393	13137	13158
40°	11791	12427	12752
45°	11116	11674	12273
50°	10406	11001	11750
55°	9598	10235	11115
60°	8643	9340	10338
65°	7632	8304	9403
70°	6360	7072	7988
75°	4998	5648	6253
80°	3575	3975	4410
85°	2331	2331	2195



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	528.3	4.1
10°-20°	1484.2	11.4
20°-30°	2168.9	16.7
30°-40°	2462.0	19.0
40°-50°	2376.6	18.3
50°-60°	1960.6	15.1
60°-70°	1305.6	10.1
70°-80°	584.2	4.5
80°-90°	104.5	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°	4181.5	32.2
0°-40°	6643.4	51.2
0°-60°	10980.7	84.6
0°-90°	12975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12975.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5611	5611	5611	5611	5611	
5°	5605	5603	5581	5551	5534	530
15°	5282	5294	5282	5258	5221	1489
25°	4691	4728	4749	4715	4674	2148
35°	3772	3824	3999	4020	4005	2364
45°	2921	2971	3068	3208	3225	2254
55°	2046	2080	2182	2302	2369	1826
65°	1199	1231	1304	1397	1477	1188
75°	481	507	543	569	601	526
85°	76	76	76	71	71	102
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5611.4	5611.4	5611.4	5611.4	5611.4
2.5°	5626.4	5628.6	5615.7	5581.2	5559.6
5°	5604.9	5602.7	5581.2	5551.0	5533.7
7.5°	5542.4	5546.7	5540.2	5497.1	5473.4
10°	5482.0	5484.2	5466.9	5432.4	5404.4
12.5°	5404.4	5402.2	5378.5	5361.3	5316.0
15°	5281.5	5294.5	5281.5	5257.8	5221.2
17.5°	5163.0	5163.0	5171.6	5130.6	5102.6
20°	5029.3	5035.8	5035.8	5003.4	4971.1
22.5°	4874.1	4893.5	4900.0	4865.5	4826.7
25°	4690.9	4727.5	4749.1	4714.6	4673.6
27.5°	4468.8	4524.9	4589.5	4563.7	4518.4
30°	4220.9	4302.8	4410.6	4389.1	4356.7
32.5°	3985.9	4067.9	4216.6	4208.0	4190.7
35°	3772.5	3824.3	3998.9	4020.4	4005.3
37.5°	3569.9	3617.3	3781.1	3830.7	3817.8
40°	3356.5	3408.2	3537.5	3625.9	3630.2
42.5°	3145.2	3194.8	3300.4	3427.6	3427.6
45°	2921.0	2970.6	3067.6	3207.7	3225.0
47.5°	2701.1	2752.9	2847.7	2987.8	3015.9
50°	2485.6	2533.0	2627.8	2763.6	2806.8
52.5°	2261.4	2313.1	2405.8	2530.8	2593.3
55°	2045.8	2080.3	2181.6	2302.3	2369.1
57.5°	1821.6	1853.9	1968.2	2071.7	2140.6
60°	1606.0	1647.0	1735.4	1841.0	1920.8
62.5°	1399.1	1442.2	1517.6	1610.3	1700.9
65°	1198.6	1230.9	1304.2	1396.9	1476.7
67.5°	1004.6	1032.6	1105.9	1170.6	1254.6
70°	808.4	845.0	898.9	961.5	1015.3
72.5°	651.0	666.1	711.4	756.7	812.7
75°	480.7	506.6	543.2	569.1	601.4
77.5°	344.9	360.0	381.6	403.1	433.3
80°	230.7	237.1	256.5	260.8	284.6
82.5°	140.1	144.4	148.7	150.9	159.5
85°	75.5	75.5	75.5	71.1	71.1
87.5°	43.1	43.1	36.6	30.2	21.6
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)