

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: P557787

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-82-94-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: P557787  
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-35-UNV-82-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

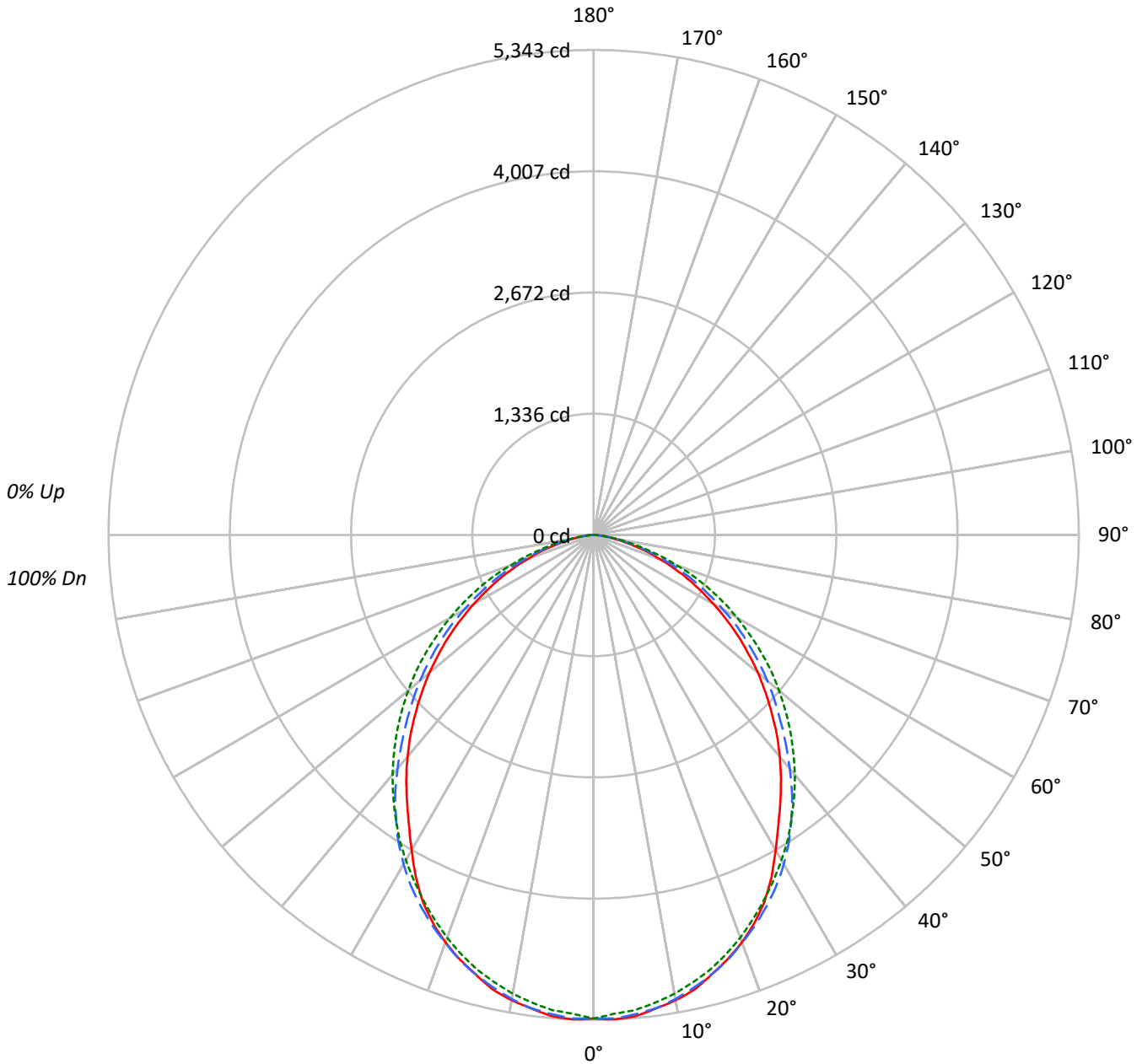
Lumens per Lamp: N/A  
Luminaire Lumens: 12321.0 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
Input Voltage (V): NR  
Input Current (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°	14339	14339	14339
5°	14377	14316	14195
10°	14225	14185	14023
15°	13972	13972	13813
20°	13676	13694	13518
25°	13226	13390	13177
30°	12455	13014	12855
35°	11768	12474	12494
40°	11196	11800	12110
45°	10556	11086	11654
50°	9881	10447	11158
55°	9114	9719	10555
60°	8208	8869	9816
65°	7247	7886	8928
70°	6039	6716	7586
75°	4746	5364	5938
80°	3394	3775	4187
85°	2211	2211	2087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	501.7	4.1
10°-20°	1409.4	11.4
20°-30°	2059.6	16.7
30°-40°	2337.9	19.0
40°-50°	2256.9	18.3
50°-60°	1861.8	15.1
60°-70°	1239.8	10.1
70°-80°	554.8	4.5
80°-90°	99.3	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°	3970.7	32.2
0°-40°	6308.6	51.2
0°-60°	10427.2	84.6
0°-90°	12321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12321.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5328	5328	5328	5328	5328	
5°	5322	5320	5300	5271	5255	504
15°	5015	5028	5015	4993	4958	1414
25°	4454	4489	4510	4477	4438	2040
35°	3582	3632	3797	3818	3803	2245
45°	2774	2821	2913	3046	3062	2140
55°	1943	1975	2072	2186	2250	1734
65°	1138	1169	1238	1326	1402	1129
75°	456	481	516	540	571	499
85°	72	72	72	68	68	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5328.5	5328.5	5328.5	5328.5	5328.5
2.5°	5342.8	5344.9	5332.6	5299.9	5279.4
5°	5322.4	5320.3	5299.9	5271.2	5254.8
7.5°	5263.0	5267.1	5261.0	5220.0	5197.5
10°	5205.7	5207.7	5191.4	5158.6	5132.0
12.5°	5132.0	5129.9	5107.4	5091.1	5048.1
15°	5015.3	5027.6	5015.3	4992.8	4958.0
17.5°	4902.7	4902.7	4910.9	4872.0	4845.4
20°	4775.8	4781.9	4781.9	4751.2	4720.5
22.5°	4628.4	4646.8	4653.0	4620.2	4583.4
25°	4454.4	4489.2	4509.7	4476.9	4438.0
27.5°	4243.6	4296.8	4358.2	4333.6	4290.7
30°	4008.2	4085.9	4188.3	4167.8	4137.1
32.5°	3785.0	3862.8	4004.1	3995.9	3979.5
35°	3582.4	3631.5	3797.3	3817.8	3803.4
37.5°	3389.9	3435.0	3590.6	3637.6	3625.4
40°	3187.3	3236.4	3359.2	3443.2	3447.3
42.5°	2986.7	3033.8	3134.1	3254.8	3254.8
45°	2773.8	2820.9	2913.0	3046.0	3062.4
47.5°	2565.0	2614.1	2704.2	2837.2	2863.8
50°	2360.3	2405.3	2495.4	2624.3	2665.3
52.5°	2147.4	2196.5	2284.5	2403.3	2462.6
55°	1942.7	1975.4	2071.6	2186.3	2249.7
57.5°	1729.8	1760.5	1869.0	1967.2	2032.7
60°	1525.1	1564.0	1647.9	1748.2	1823.9
62.5°	1328.5	1369.5	1441.1	1529.2	1615.1
65°	1138.2	1168.9	1238.5	1326.5	1402.2
67.5°	953.9	980.5	1050.1	1111.6	1191.4
70°	767.6	802.5	853.6	913.0	964.2
72.5°	618.2	632.5	675.5	718.5	771.7
75°	456.5	481.1	515.9	540.4	571.1
77.5°	327.5	341.9	362.3	382.8	411.5
80°	219.0	225.2	243.6	247.7	270.2
82.5°	133.1	137.2	141.2	143.3	151.5
85°	71.6	71.6	71.6	67.6	67.6
87.5°	40.9	40.9	34.8	28.7	20.5
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)