

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: P557794

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-93-85-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: P557794  
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-93-85-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

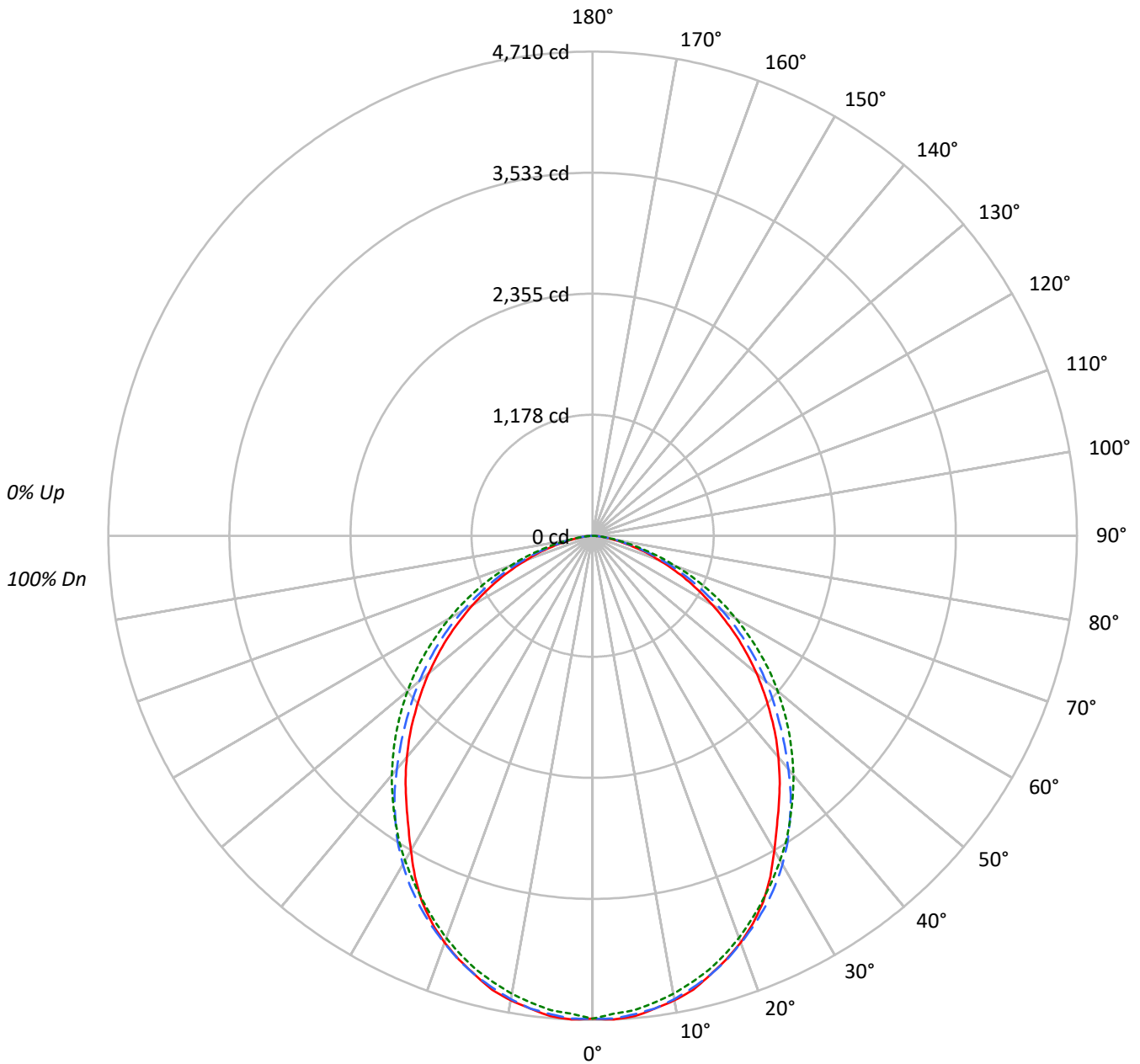
Lumens per Lamp: N/A  
Luminaire Lumens: 10862.0 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12641	12641	12641
5°	12675	12621	12514
10°	12540	12506	12363
15°	12318	12318	12177
20°	12057	12072	11917
25°	11660	11805	11617
30°	10980	11473	11333
35°	10375	10997	11015
40°	9871	10403	10676
45°	9306	9773	10274
50°	8711	9210	9837
55°	8035	8568	9305
60°	7236	7819	8654
65°	6389	6952	7871
70°	5324	5921	6688
75°	4184	4729	5235
80°	2992	3329	3691
85°	1951	1951	1840



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	442.3	4.1
10°-20°	1242.5	11.4
20°-30°	1815.7	16.7
30°-40°	2061.0	19.0
40°-50°	1989.6	18.3
50°-60°	1641.3	15.1
60°-70°	1093.0	10.1
70°-80°	489.1	4.5
80°-90°	87.5	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°	3500.5	32.2
0°-40°	5561.5	51.2
0°-60°	9192.5	84.6
0°-90°	10862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10862.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4698	4698	4698	4698	4698	
5°	4692	4690	4672	4647	4633	444
15°	4421	4432	4421	4402	4371	1246
25°	3927	3958	3976	3947	3912	1798
35°	3158	3202	3348	3366	3353	1979
45°	2445	2487	2568	2685	2700	1887
55°	1713	1742	1826	1927	1983	1529
65°	1003	1030	1092	1169	1236	995
75°	402	424	455	476	504	440
85°	63	63	63	60	60	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4697.5	4697.5	4697.5	4697.5	4697.5
2.5°	4710.2	4712.0	4701.1	4672.3	4654.2
5°	4692.1	4690.3	4672.3	4647.0	4632.6
7.5°	4639.8	4643.4	4638.0	4601.9	4582.0
10°	4589.3	4591.1	4576.6	4547.7	4524.3
12.5°	4524.3	4522.5	4502.6	4488.2	4450.3
15°	4421.4	4432.2	4421.4	4401.6	4370.9
17.5°	4322.2	4322.2	4329.4	4295.1	4271.6
20°	4210.3	4215.7	4215.7	4188.6	4161.5
22.5°	4080.3	4096.6	4102.0	4073.1	4040.6
25°	3926.9	3957.6	3975.7	3946.8	3912.5
27.5°	3741.1	3788.0	3842.1	3820.5	3782.6
30°	3533.5	3602.1	3692.3	3674.3	3647.2
32.5°	3336.8	3405.4	3529.9	3522.7	3508.3
35°	3158.2	3201.5	3347.6	3365.7	3353.1
37.5°	2988.5	3028.2	3165.4	3206.9	3196.1
40°	2809.9	2853.2	2961.4	3035.4	3039.1
42.5°	2633.0	2674.5	2762.9	2869.4	2869.4
45°	2445.3	2486.8	2568.0	2685.3	2699.8
47.5°	2261.2	2304.6	2384.0	2501.3	2524.7
50°	2080.8	2120.5	2199.9	2313.6	2349.7
52.5°	1893.1	1936.4	2014.0	2118.7	2171.0
55°	1712.6	1741.5	1826.3	1927.4	1983.3
57.5°	1524.9	1552.0	1647.7	1734.3	1792.0
60°	1344.5	1378.8	1452.8	1541.2	1608.0
62.5°	1171.2	1207.3	1270.5	1348.1	1423.9
65°	1003.4	1030.5	1091.8	1169.4	1236.2
67.5°	841.0	864.4	925.8	979.9	1050.3
70°	676.7	707.4	752.5	804.9	850.0
72.5°	545.0	557.6	595.5	633.4	680.4
75°	402.4	424.1	454.8	476.4	503.5
77.5°	288.7	301.4	319.4	337.5	362.7
80°	193.1	198.5	214.8	218.4	238.2
82.5°	117.3	120.9	124.5	126.3	133.5
85°	63.2	63.2	63.2	59.6	59.6
87.5°	36.1	36.1	30.7	25.3	18.0
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)