

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: P558266

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-80-94-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: P558266  
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-LD4-3STD-35-UNV-80-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

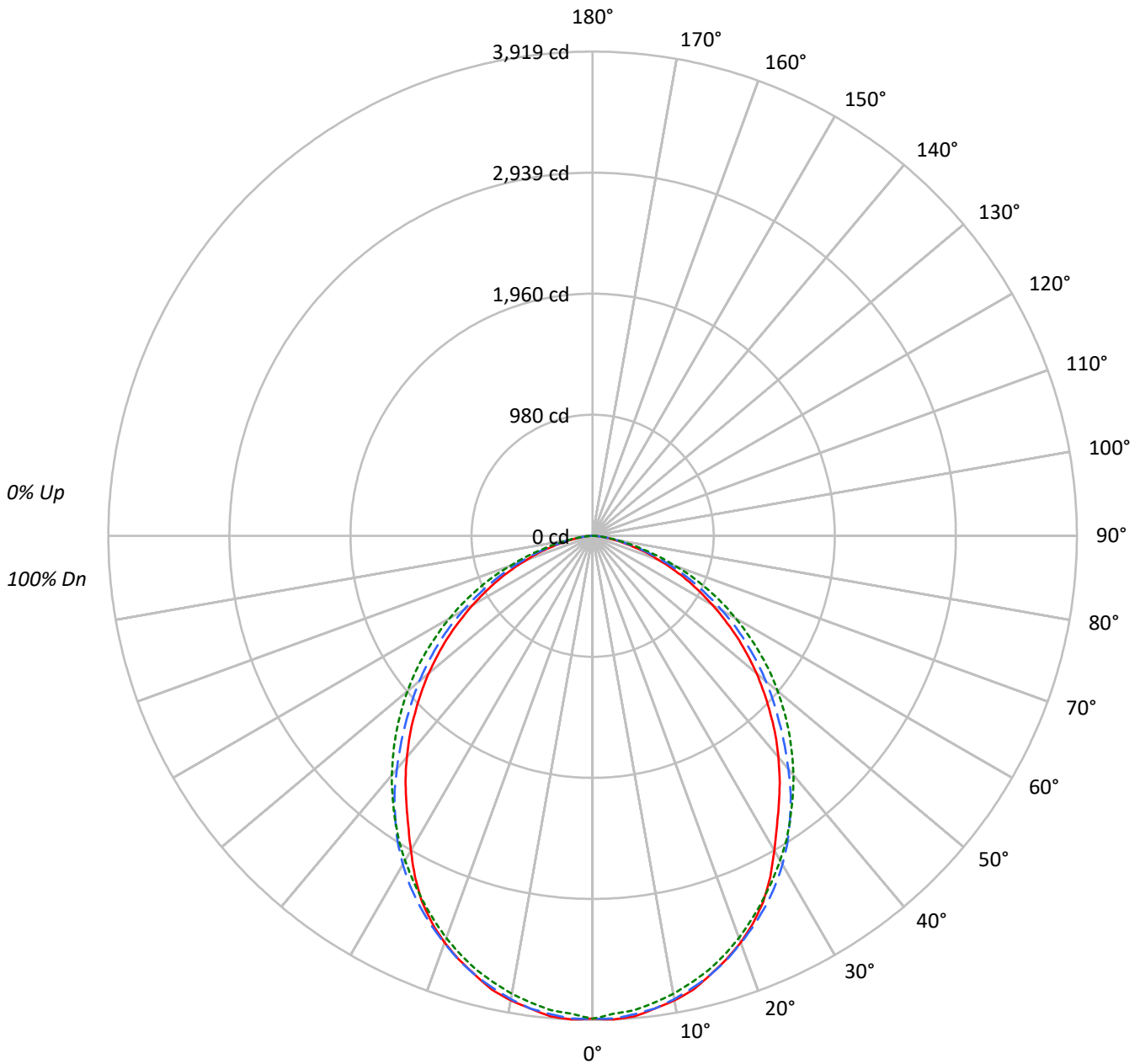
Lumens per Lamp: N/A  
Luminaire Lumens: 9038.0 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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°	10518	10518	10518
5°	10546	10502	10412
10°	10434	10406	10286
15°	10249	10249	10132
20°	10032	10045	9916
25°	9702	9822	9666
30°	9136	9546	9430
35°	8633	9151	9165
40°	8213	8656	8883
45°	7743	8132	8549
50°	7248	7663	8185
55°	6685	7129	7743
60°	6021	6506	7201
65°	5316	5785	6550
70°	4430	4927	5565
75°	3482	3934	4356
80°	2490	2769	3071
85°	1624	1624	1531



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	368.0	4.1
10°-20°	1033.9	11.4
20°-30°	1510.8	16.7
30°-40°	1714.9	19.0
40°-50°	1655.5	18.3
50°-60°	1365.7	15.1
60°-70°	909.4	10.1
70°-80°	407.0	4.5
80°-90°	72.8	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°	2912.7	32.2
0°-40°	4627.6	51.2
0°-60°	7648.8	84.6
0°-90°	9038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9038.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3909	3909	3909	3909	3909	
5°	3904	3903	3888	3867	3855	370
15°	3679	3688	3679	3662	3637	1037
25°	3268	3293	3308	3284	3256	1496
35°	2628	2664	2786	2800	2790	1646
45°	2035	2069	2137	2234	2246	1570
55°	1425	1449	1520	1604	1650	1272
65°	835	857	908	973	1029	828
75°	335	353	378	396	419	366
85°	53	53	53	50	50	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3908.7	3908.7	3908.7	3908.7	3908.7
2.5°	3919.2	3920.7	3911.7	3887.7	3872.7
5°	3904.2	3902.7	3887.7	3866.7	3854.6
7.5°	3860.6	3863.7	3859.1	3829.1	3812.6
10°	3818.6	3820.1	3808.1	3784.1	3764.5
12.5°	3764.5	3763.0	3746.5	3734.5	3703.0
15°	3679.0	3688.0	3679.0	3662.4	3636.9
17.5°	3596.4	3596.4	3602.4	3573.8	3554.3
20°	3503.3	3507.8	3507.8	3485.2	3462.7
22.5°	3395.1	3408.7	3413.2	3389.1	3362.1
25°	3267.5	3293.0	3308.1	3284.0	3255.5
27.5°	3112.8	3151.9	3196.9	3178.9	3147.4
30°	2940.2	2997.2	3072.3	3057.3	3034.8
32.5°	2776.5	2833.5	2937.2	2931.2	2919.1
35°	2627.8	2663.9	2785.5	2800.5	2790.0
37.5°	2486.7	2519.7	2633.8	2668.4	2659.4
40°	2338.0	2374.1	2464.1	2525.7	2528.7
42.5°	2190.9	2225.4	2299.0	2387.6	2387.6
45°	2034.7	2069.2	2136.8	2234.4	2246.4
47.5°	1881.5	1917.6	1983.6	2081.2	2100.8
50°	1731.4	1764.4	1830.5	1925.1	1955.1
52.5°	1575.2	1611.2	1675.8	1762.9	1806.4
55°	1425.0	1449.1	1519.6	1603.7	1650.3
57.5°	1268.9	1291.4	1371.0	1443.1	1491.1
60°	1118.7	1147.2	1208.8	1282.4	1337.9
62.5°	974.5	1004.6	1057.1	1121.7	1184.8
65°	834.9	857.4	908.5	973.0	1028.6
67.5°	699.8	719.3	770.3	815.4	873.9
70°	563.1	588.6	626.2	669.7	707.3
72.5°	453.5	464.0	495.5	527.1	566.1
75°	334.9	352.9	378.4	396.4	419.0
77.5°	240.3	250.8	265.8	280.8	301.8
80°	160.7	165.2	178.7	181.7	198.2
82.5°	97.6	100.6	103.6	105.1	111.1
85°	52.6	52.6	52.6	49.6	49.6
87.5°	30.0	30.0	25.5	21.0	15.0
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)