

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: P557811

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-80-85-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: P557811  
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-80-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

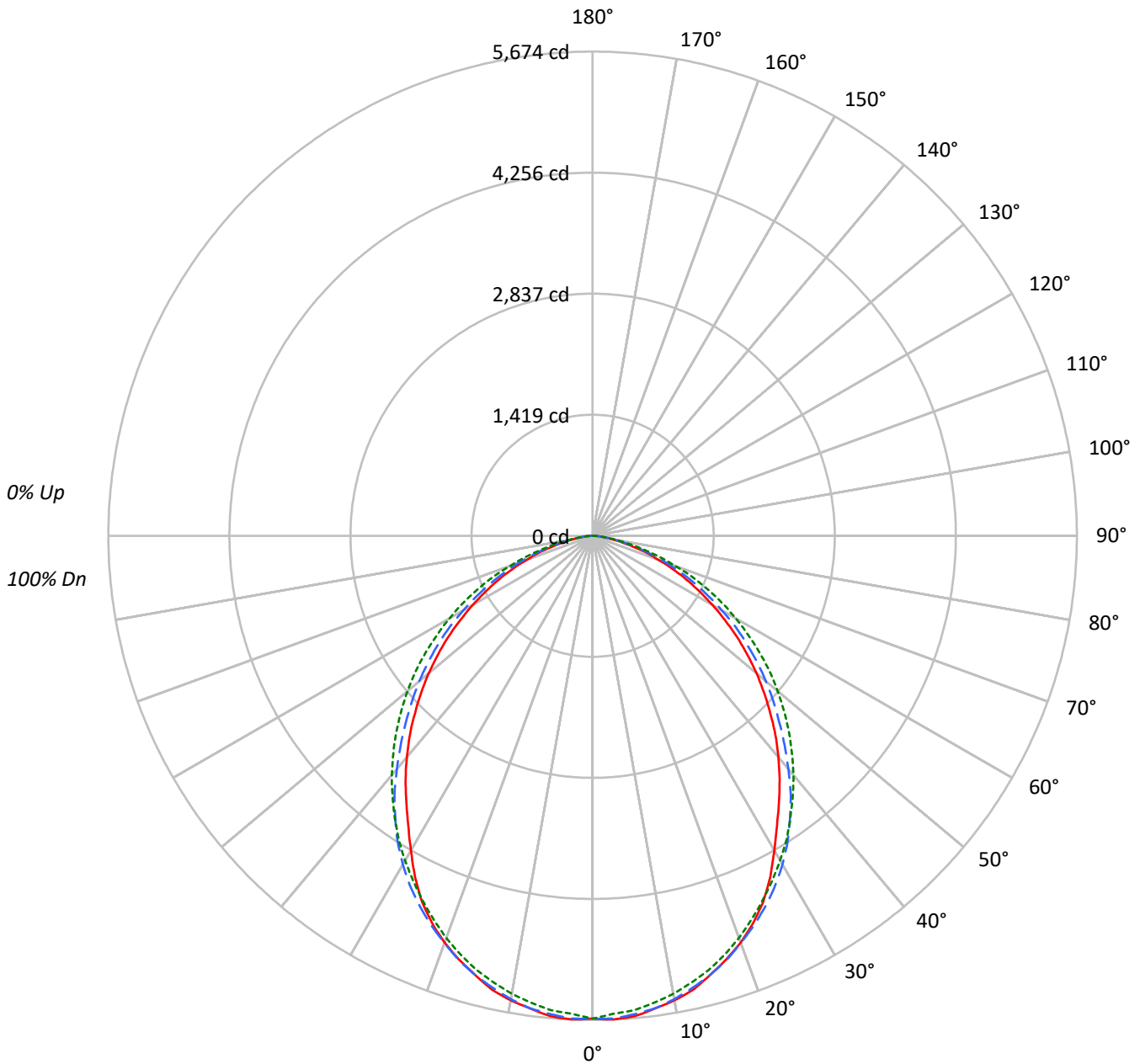
Lumens per Lamp: N/A  
Luminaire Lumens: 13085.0 lumens  
Efficiency: N/A  
Efficacy: 101.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	15228	15228	15228
5°	15269	15204	15075
10°	15107	15065	14893
15°	14839	14839	14669
20°	14524	14543	14356
25°	14046	14220	13994
30°	13227	13821	13652
35°	12498	13248	13269
40°	11891	12532	12860
45°	11211	11773	12377
50°	10494	11094	11850
55°	9679	10322	11209
60°	8717	9419	10425
65°	7696	8375	9482
70°	6415	7133	8057
75°	5041	5696	6306
80°	3605	4009	4448
85°	2350	2350	2214



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	532.8	4.1
10°-20°	1496.8	11.4
20°-30°	2187.3	16.7
30°-40°	2482.8	19.0
40°-50°	2396.8	18.3
50°-60°	1977.2	15.1
60°-70°	1316.7	10.1
70°-80°	589.2	4.5
80°-90°	105.4	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°	4216.9	32.2
0°-40°	6699.8	51.2
0°-60°	11073.8	84.6
0°-90°	13085.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13085.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5659	5659	5659	5659	5659	
5°	5652	5650	5628	5598	5581	535
15°	5326	5339	5326	5302	5265	1502
25°	4731	4768	4789	4754	4713	2166
35°	3804	3857	4033	4054	4039	2384
45°	2946	2996	3094	3235	3252	2273
55°	2063	2098	2200	2322	2389	1841
65°	1209	1241	1315	1409	1489	1199
75°	485	511	548	574	606	530
85°	76	76	76	72	72	103
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5658.9	5658.9	5658.9	5658.9	5658.9
2.5°	5674.1	5676.3	5663.3	5628.5	5606.7
5°	5652.4	5650.2	5628.5	5598.1	5580.7
7.5°	5589.4	5593.7	5587.2	5543.7	5519.8
10°	5528.5	5530.7	5513.3	5478.5	5450.2
12.5°	5450.2	5448.0	5424.1	5406.7	5361.1
15°	5326.3	5339.3	5326.3	5302.4	5265.4
17.5°	5206.7	5206.7	5215.4	5174.1	5145.9
20°	5071.9	5078.5	5078.5	5045.9	5013.2
22.5°	4915.4	4935.0	4941.5	4906.7	4867.6
25°	4730.6	4767.6	4789.3	4754.5	4713.2
27.5°	4506.7	4563.2	4628.4	4602.4	4556.7
30°	4256.7	4339.3	4448.0	4426.3	4393.7
32.5°	4019.7	4102.3	4252.3	4243.6	4226.3
35°	3804.5	3856.7	4032.8	4054.5	4039.3
37.5°	3600.1	3648.0	3813.2	3863.2	3850.2
40°	3384.9	3437.1	3567.5	3656.7	3661.0
42.5°	3171.9	3221.9	3328.4	3456.7	3456.7
45°	2945.8	2995.8	3093.6	3234.9	3252.3
47.5°	2724.0	2776.2	2871.9	3013.2	3041.4
50°	2506.6	2554.5	2650.1	2787.1	2830.5
52.5°	2280.5	2332.7	2426.2	2552.3	2615.3
55°	2063.1	2097.9	2200.1	2321.8	2389.2
57.5°	1837.0	1869.6	1984.9	2089.2	2158.8
60°	1619.6	1660.9	1750.1	1856.6	1937.0
62.5°	1410.9	1454.4	1530.5	1624.0	1715.3
65°	1208.7	1241.4	1315.3	1408.8	1489.2
67.5°	1013.1	1041.3	1115.3	1180.5	1265.3
70°	815.3	852.2	906.6	969.6	1024.0
72.5°	656.5	671.8	717.4	763.1	819.6
75°	484.8	510.9	547.8	573.9	606.5
77.5°	347.8	363.1	384.8	406.5	437.0
80°	232.6	239.1	258.7	263.1	287.0
82.5°	141.3	145.7	150.0	152.2	160.9
85°	76.1	76.1	76.1	71.7	71.7
87.5°	43.5	43.5	37.0	30.4	21.7
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)