

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: P556927

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-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: P556927  
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-LD4-2HI-30-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  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

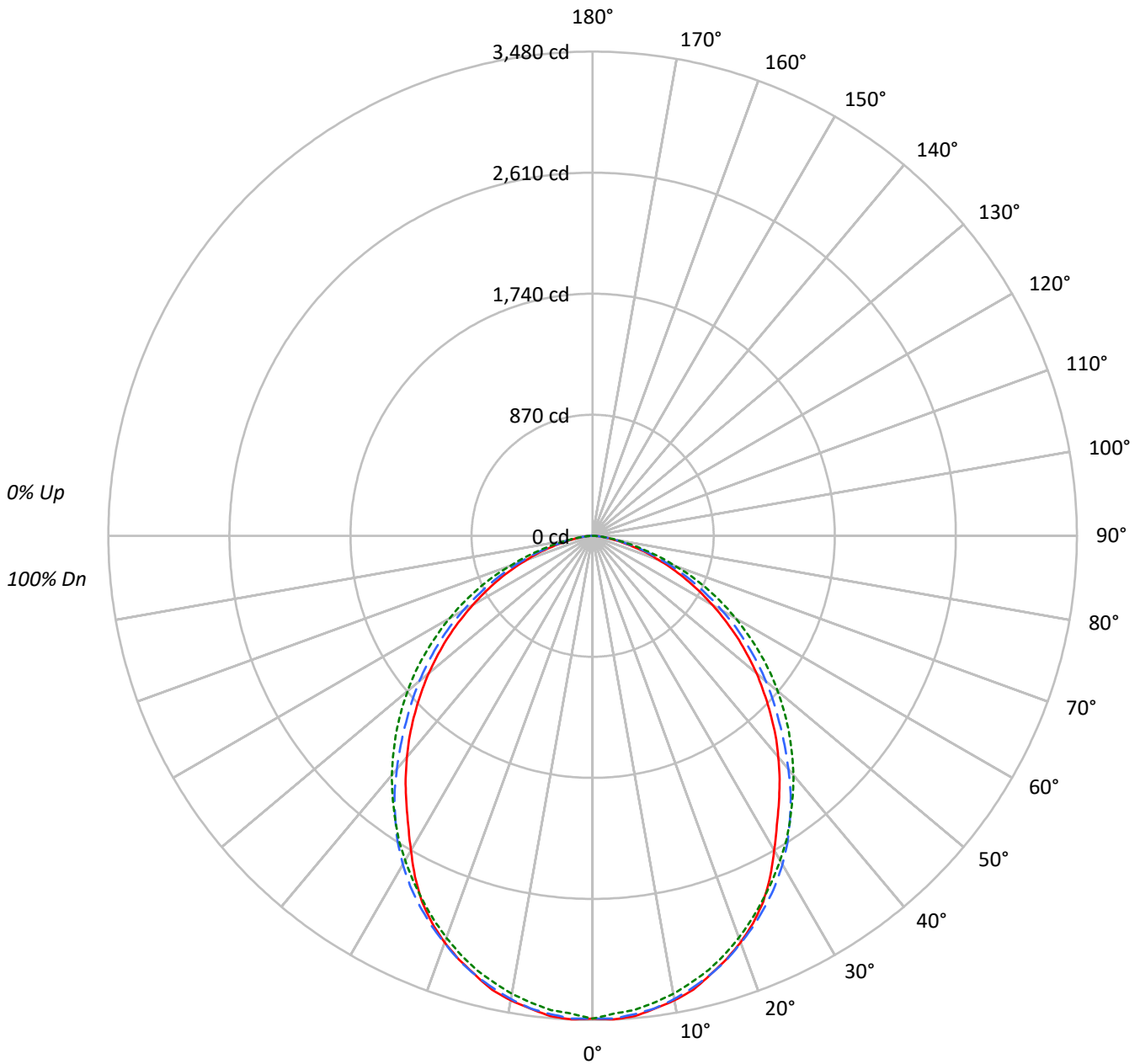
Lumens per Lamp: N/A  
Luminaire Lumens: 8024.0 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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°	9338	9338	9338
5°	9363	9323	9244
10°	9264	9238	9133
15°	9099	9099	8995
20°	8907	8918	8804
25°	8613	8720	8582
30°	8111	8475	8372
35°	7664	8124	8137
40°	7292	7685	7886
45°	6874	7220	7590
50°	6435	6803	7267
55°	5936	6329	6874
60°	5345	5776	6393
65°	4720	5136	5815
70°	3933	4374	4940
75°	3091	3493	3867
80°	2210	2458	2727
85°	1442	1442	1359



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	326.7	4.1
10°-20°	917.9	11.4
20°-30°	1341.3	16.7
30°-40°	1522.5	19.0
40°-50°	1469.8	18.3
50°-60°	1212.5	15.1
60°-70°	807.4	10.1
70°-80°	361.3	4.5
80°-90°	64.7	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°	2585.9	32.2
0°-40°	4108.4	51.2
0°-60°	6790.7	84.6
0°-90°	8024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8024.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3470	3470	3470	3470	3470	
5°	3466	3465	3452	3433	3422	328
15°	3266	3274	3266	3252	3229	921
25°	2901	2924	2937	2916	2890	1328
35°	2333	2365	2473	2486	2477	1462
45°	1806	1837	1897	1984	1994	1394
55°	1265	1286	1349	1424	1465	1129
65°	741	761	807	864	913	735
75°	297	313	336	352	372	325
85°	47	47	47	44	44	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3470.2	3470.2	3470.2	3470.2	3470.2
2.5°	3479.5	3480.8	3472.8	3451.5	3438.2
5°	3466.2	3464.8	3451.5	3432.8	3422.2
7.5°	3427.5	3430.2	3426.2	3399.5	3384.9
10°	3390.2	3391.5	3380.9	3359.5	3342.2
12.5°	3342.2	3340.9	3326.2	3315.5	3287.5
15°	3266.2	3274.2	3266.2	3251.5	3228.9
17.5°	3192.9	3192.9	3198.2	3172.9	3155.6
20°	3110.2	3114.2	3114.2	3094.2	3074.2
22.5°	3014.2	3026.2	3030.2	3008.9	2984.9
25°	2900.9	2923.6	2936.9	2915.6	2890.3
27.5°	2763.6	2798.3	2838.3	2822.3	2794.3
30°	2610.3	2661.0	2727.6	2714.3	2694.3
32.5°	2465.0	2515.6	2607.6	2602.3	2591.6
35°	2333.0	2365.0	2473.0	2486.3	2477.0
37.5°	2207.7	2237.0	2338.3	2369.0	2361.0
40°	2075.7	2107.7	2187.7	2242.3	2245.0
42.5°	1945.1	1975.7	2041.0	2119.7	2119.7
45°	1806.4	1837.1	1897.1	1983.7	1994.4
47.5°	1670.4	1702.4	1761.1	1847.7	1865.1
50°	1537.1	1566.4	1625.1	1709.1	1735.8
52.5°	1398.5	1430.5	1487.8	1565.1	1603.8
55°	1265.2	1286.5	1349.1	1423.8	1465.1
57.5°	1126.5	1146.5	1217.2	1281.2	1323.8
60°	993.2	1018.5	1073.2	1138.5	1187.8
62.5°	865.2	891.9	938.5	995.9	1051.9
65°	741.2	761.2	806.6	863.9	913.2
67.5°	621.2	638.6	683.9	723.9	775.9
70°	499.9	522.6	555.9	594.6	627.9
72.5°	402.6	411.9	439.9	467.9	502.6
75°	297.3	313.3	336.0	351.9	371.9
77.5°	213.3	222.6	236.0	249.3	268.0
80°	142.6	146.6	158.6	161.3	176.0
82.5°	86.7	89.3	92.0	93.3	98.7
85°	46.7	46.7	46.7	44.0	44.0
87.5°	26.7	26.7	22.7	18.7	13.3
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)