

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: P556206

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-93-97-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: P556206  
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-LD4-1HI-30-UNV-93-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

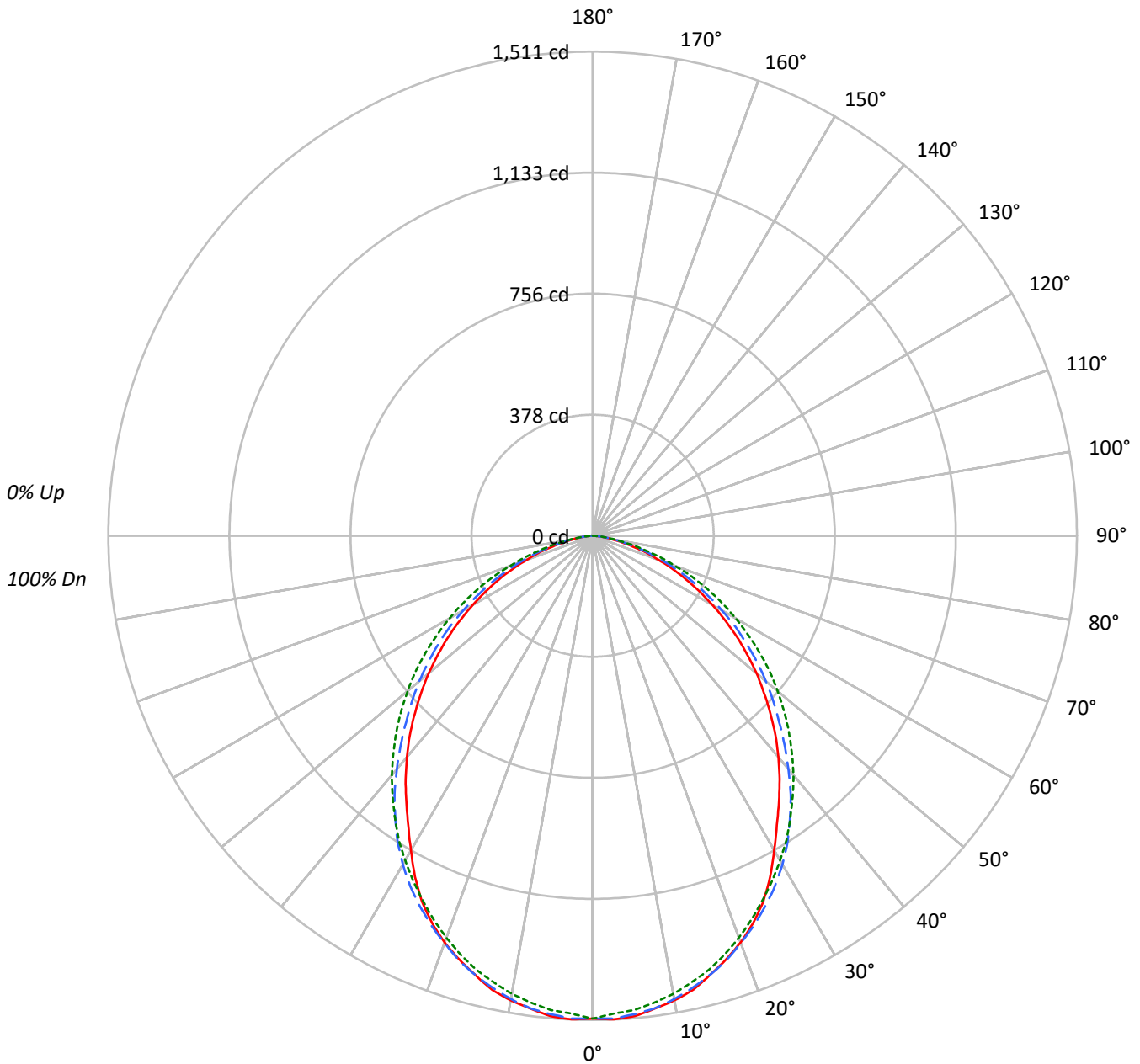
Lumens per Lamp: N/A  
Luminaire Lumens: 3484.0 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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°	4054	4054	4054
5°	4065	4048	4014
10°	4022	4011	3965
15°	3951	3951	3906
20°	3867	3872	3822
25°	3740	3786	3726
30°	3522	3680	3635
35°	3328	3528	3533
40°	3166	3337	3424
45°	2985	3135	3296
50°	2794	2954	3155
55°	2577	2748	2985
60°	2321	2508	2776
65°	2049	2230	2525
70°	1708	1899	2145
75°	1342	1517	1679
80°	959	1068	1184
85°	627	627	590



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.9	4.1
10°-20°	398.5	11.4
20°-30°	582.4	16.7
30°-40°	661.1	19.0
40°-50°	638.2	18.3
50°-60°	526.4	15.1
60°-70°	350.6	10.1
70°-80°	156.9	4.5
80°-90°	28.1	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°	1122.8	32.2
0°-40°	1783.9	51.2
0°-60°	2948.5	84.6
0°-90°	3484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3484.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1507	1507	1507	1507	1507	
5°	1505	1504	1499	1490	1486	142
15°	1418	1422	1418	1412	1402	400
25°	1260	1269	1275	1266	1255	577
35°	1013	1027	1074	1080	1076	635
45°	784	798	824	861	866	605
55°	549	559	586	618	636	490
65°	322	330	350	375	396	319
75°	129	136	146	153	162	141
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1506.7	1506.7	1506.7	1506.7	1506.7
2.5°	1510.8	1511.4	1507.9	1498.6	1492.8
5°	1505.0	1504.4	1498.6	1490.5	1485.9
7.5°	1488.2	1489.4	1487.6	1476.1	1469.7
10°	1472.0	1472.6	1468.0	1458.7	1451.2
12.5°	1451.2	1450.6	1444.2	1439.6	1427.4
15°	1418.2	1421.6	1418.2	1411.8	1402.0
17.5°	1386.3	1386.3	1388.7	1377.7	1370.1
20°	1350.5	1352.2	1352.2	1343.5	1334.8
22.5°	1308.8	1314.0	1315.7	1306.5	1296.0
25°	1259.6	1269.4	1275.2	1265.9	1254.9
27.5°	1200.0	1215.0	1232.4	1225.4	1213.3
30°	1133.4	1155.4	1184.3	1178.5	1169.9
32.5°	1070.3	1092.3	1132.2	1129.9	1125.3
35°	1013.0	1026.9	1073.8	1079.6	1075.5
37.5°	958.6	971.3	1015.3	1028.6	1025.1
40°	901.3	915.2	949.9	973.6	974.8
42.5°	844.5	857.9	886.2	920.4	920.4
45°	784.3	797.7	823.7	861.3	866.0
47.5°	725.3	739.2	764.7	802.3	809.8
50°	667.4	680.1	705.6	742.1	753.7
52.5°	607.2	621.1	646.0	679.6	696.4
55°	549.3	558.6	585.8	618.2	636.2
57.5°	489.1	497.8	528.5	556.3	574.8
60°	431.2	442.2	466.0	494.3	515.8
62.5°	375.7	387.2	407.5	432.4	456.7
65°	321.8	330.5	350.2	375.1	396.5
67.5°	269.7	277.3	296.9	314.3	336.9
70°	217.1	226.9	241.4	258.2	272.6
72.5°	174.8	178.9	191.0	203.2	218.2
75°	129.1	136.0	145.9	152.8	161.5
77.5°	92.6	96.7	102.5	108.2	116.3
80°	61.9	63.7	68.9	70.0	76.4
82.5°	37.6	38.8	39.9	40.5	42.8
85°	20.3	20.3	20.3	19.1	19.1
87.5°	11.6	11.6	9.8	8.1	5.8
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)