

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: P556314

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-82-94-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: P556314  
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-40-UNV-82-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

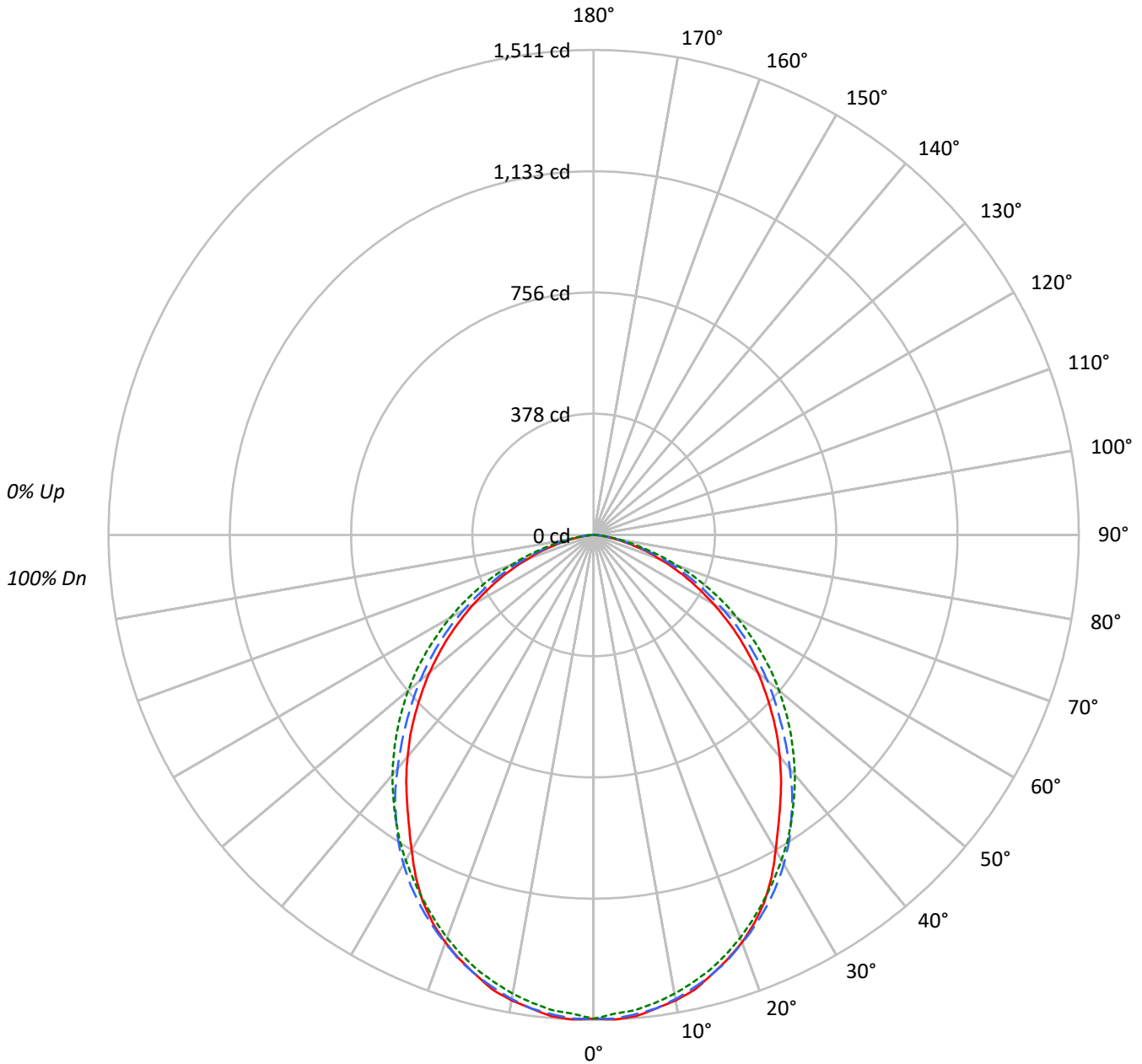
Lumens per Lamp: N/A  
Luminaire Lumens: 3485.0 lumens  
Efficiency: N/A  
Efficacy: 80.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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				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	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°	4056	4056	4056
5°	4066	4049	4015
10°	4023	4012	3966
15°	3952	3952	3907
20°	3868	3873	3824
25°	3741	3787	3727
30°	3523	3681	3636
35°	3329	3529	3534
40°	3167	3338	3425
45°	2986	3135	3296
50°	2795	2955	3156
55°	2578	2749	2985
60°	2322	2509	2777
65°	2050	2230	2525
70°	1708	1899	2146
75°	1342	1517	1679
80°	961	1068	1184
85°	627	627	590



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.9	4.1
10°-20°	398.7	11.4
20°-30°	582.6	16.7
30°-40°	661.3	19.0
40°-50°	638.4	18.3
50°-60°	526.6	15.1
60°-70°	350.7	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°	1123.1	32.2
0°-40°	1784.4	51.2
0°-60°	2949.3	84.6
0°-90°	3485.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3485.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1507	1507	1507	1507	1507	
5°	1505	1505	1499	1491	1486	142
15°	1419	1422	1419	1412	1402	400
25°	1260	1270	1276	1266	1255	577
35°	1013	1027	1074	1080	1076	635
45°	785	798	824	862	866	605
55°	550	559	586	618	636	490
65°	322	331	350	375	397	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°	1507.2	1507.2	1507.2	1507.2	1507.2
2.5°	1511.2	1511.8	1508.3	1499.1	1493.3
5°	1505.4	1504.9	1499.1	1491.0	1486.3
7.5°	1488.6	1489.8	1488.1	1476.5	1470.1
10°	1472.4	1473.0	1468.4	1459.1	1451.6
12.5°	1451.6	1451.0	1444.6	1440.0	1427.8
15°	1418.6	1422.1	1418.6	1412.2	1402.4
17.5°	1386.7	1386.7	1389.1	1378.1	1370.5
20°	1350.8	1352.6	1352.6	1343.9	1335.2
22.5°	1309.1	1314.4	1316.1	1306.8	1296.4
25°	1259.9	1269.8	1275.6	1266.3	1255.3
27.5°	1200.3	1215.3	1232.7	1225.8	1213.6
30°	1133.7	1155.7	1184.7	1178.9	1170.2
32.5°	1070.6	1092.6	1132.6	1130.2	1125.6
35°	1013.3	1027.2	1074.1	1079.9	1075.8
37.5°	958.8	971.6	1015.6	1028.9	1025.4
40°	901.5	915.4	950.2	973.9	975.1
42.5°	844.8	858.1	886.5	920.6	920.6
45°	784.6	797.9	823.9	861.6	866.2
47.5°	725.5	739.4	764.9	802.5	810.0
50°	667.6	680.3	705.8	742.3	753.9
52.5°	607.4	621.3	646.2	679.8	696.6
55°	549.5	558.7	586.0	618.4	636.3
57.5°	489.3	498.0	528.6	556.4	575.0
60°	431.4	442.4	466.1	494.5	515.9
62.5°	375.8	387.4	407.6	432.5	456.8
65°	321.9	330.6	350.3	375.2	396.6
67.5°	269.8	277.3	297.0	314.4	337.0
70°	217.1	227.0	241.4	258.2	272.7
72.5°	174.9	178.9	191.1	203.2	218.3
75°	129.1	136.1	145.9	152.9	161.5
77.5°	92.6	96.7	102.5	108.3	116.4
80°	62.0	63.7	68.9	70.1	76.4
82.5°	37.6	38.8	40.0	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)