

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: P554656

Luminaire Tested: **FUSL-12-2-LD4-2HI-30-UNV-93-84-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: P554656  
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-12-2-LD4-2HI-30-UNV-93-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

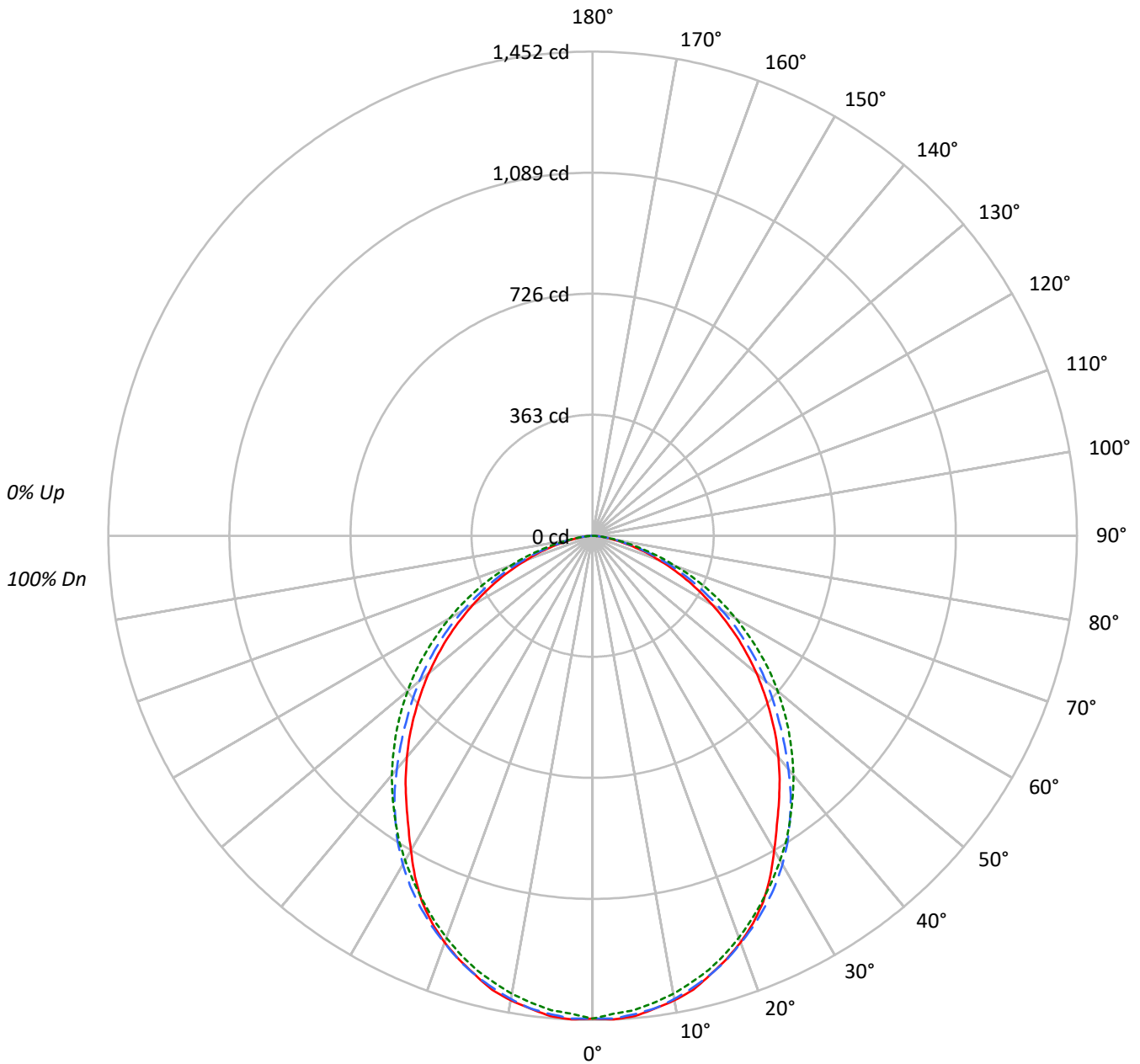
Lumens per Lamp: N/A  
Luminaire Lumens: 3348.0 lumens  
Efficiency: N/A  
Efficacy: 77.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	7793	7793	7793
5°	7814	7780	7714
10°	7730	7709	7621
15°	7593	7593	7506
20°	7432	7442	7346
25°	7188	7277	7162
30°	6768	7073	6986
35°	6395	6779	6790
40°	6085	6413	6581
45°	5737	6024	6334
50°	5370	5678	6064
55°	4953	5282	5736
60°	4461	4820	5335
65°	3939	4285	4852
70°	3282	3651	4123
75°	2578	2915	3227
80°	1844	2052	2275
85°	1204	1204	1136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.3	4.1
10°-20°	383.0	11.4
20°-30°	559.7	16.7
30°-40°	635.3	19.0
40°-50°	613.3	18.3
50°-60°	505.9	15.1
60°-70°	336.9	10.1
70°-80°	150.8	4.5
80°-90°	27.0	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°	1079.0	32.2
0°-40°	1714.2	51.2
0°-60°	2833.4	84.6
0°-90°	3348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3348.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1448	1448	1448	1448	1448	
5°	1446	1446	1440	1432	1428	137
15°	1363	1366	1363	1357	1347	384
25°	1210	1220	1225	1216	1206	554
35°	973	987	1032	1037	1034	610
45°	754	766	792	828	832	582
55°	528	537	563	594	611	471
65°	309	318	336	360	381	307
75°	124	131	140	147	155	136
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1447.9	1447.9	1447.9	1447.9	1447.9
2.5°	1451.8	1452.4	1449.0	1440.1	1434.6
5°	1446.3	1445.7	1440.1	1432.3	1427.9
7.5°	1430.1	1431.2	1429.6	1418.4	1412.3
10°	1414.5	1415.1	1410.7	1401.8	1394.5
12.5°	1394.5	1394.0	1387.8	1383.4	1371.7
15°	1362.8	1366.2	1362.8	1356.7	1347.2
17.5°	1332.2	1332.2	1334.4	1323.9	1316.6
20°	1297.7	1299.4	1299.4	1291.1	1282.7
22.5°	1257.7	1262.7	1264.4	1255.5	1245.4
25°	1210.4	1219.9	1225.4	1216.5	1206.0
27.5°	1153.1	1167.6	1184.3	1177.6	1165.9
30°	1089.1	1110.3	1138.1	1132.5	1124.2
32.5°	1028.5	1049.6	1088.0	1085.8	1081.4
35°	973.4	986.8	1031.8	1037.4	1033.5
37.5°	921.2	933.4	975.7	988.5	985.1
40°	866.1	879.4	912.8	935.6	936.7
42.5°	811.6	824.4	851.6	884.4	884.4
45°	753.7	766.5	791.5	827.7	832.2
47.5°	697.0	710.3	734.8	771.0	778.2
50°	641.4	653.6	678.1	713.1	724.2
52.5°	583.5	596.9	620.8	653.0	669.2
55°	527.9	536.8	562.9	594.1	611.3
57.5°	470.0	478.4	507.9	534.6	552.4
60°	414.4	425.0	447.8	475.0	495.6
62.5°	361.0	372.1	391.6	415.5	438.9
65°	309.3	317.6	336.5	360.5	381.0
67.5°	259.2	266.4	285.4	302.0	323.7
70°	208.6	218.1	232.0	248.1	262.0
72.5°	168.0	171.9	183.6	195.2	209.7
75°	124.0	130.7	140.2	146.9	155.2
77.5°	89.0	92.9	98.5	104.0	111.8
80°	59.5	61.2	66.2	67.3	73.4
82.5°	36.2	37.3	38.4	38.9	41.2
85°	19.5	19.5	19.5	18.4	18.4
87.5°	11.1	11.1	9.5	7.8	5.6
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)