

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: P556491

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-94-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: P556491
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-LD4-1LO-35-UNV-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

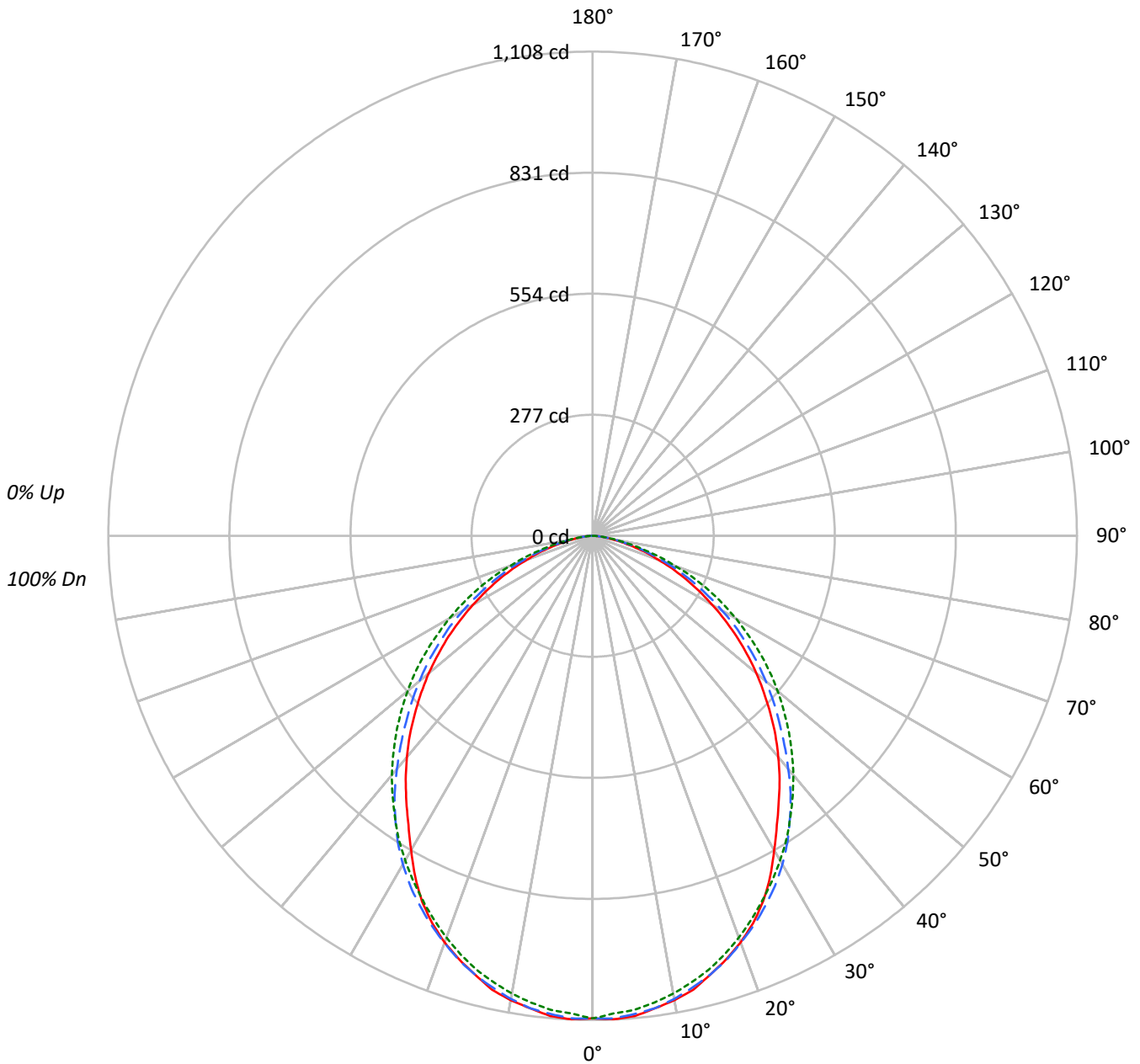
Lumens per Lamp: N/A
Luminaire Lumens: 2554.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	2972	2972	2972
5°	2980	2968	2942
10°	2949	2940	2907
15°	2896	2896	2863
20°	2835	2838	2802
25°	2741	2776	2732
30°	2582	2698	2665
35°	2439	2586	2590
40°	2321	2446	2510
45°	2188	2298	2416
50°	2048	2166	2313
55°	1889	2015	2188
60°	1701	1838	2035
65°	1502	1635	1851
70°	1252	1392	1573
75°	984	1111	1231
80°	704	783	868
85°	460	460	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	4.1
10°-20°	292.2	11.4
20°-30°	426.9	16.7
30°-40°	484.6	19.0
40°-50°	467.8	18.3
50°-60°	385.9	15.1
60°-70°	257.0	10.1
70°-80°	115.0	4.5
80°-90°	20.6	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°	823.1	32.2
0°-40°	1307.7	51.2
0°-60°	2161.4	84.6
0°-90°	2554.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2554.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1103	1103	1099	1093	1089	104
15°	1040	1042	1040	1035	1028	293
25°	923	931	935	928	920	423
35°	743	753	787	791	788	465
45°	575	585	604	631	635	444
55°	403	410	429	453	466	359
65°	236	242	257	275	291	234
75°	95	100	107	112	118	103
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1104.5	1104.5	1104.5	1104.5	1104.5
2.5°	1107.5	1107.9	1105.4	1098.6	1094.4
5°	1103.3	1102.8	1098.6	1092.7	1089.3
7.5°	1091.0	1091.8	1090.5	1082.0	1077.4
10°	1079.1	1079.5	1076.1	1069.3	1063.8
12.5°	1063.8	1063.4	1058.7	1055.3	1046.4
15°	1039.6	1042.2	1039.6	1034.9	1027.7
17.5°	1016.3	1016.3	1018.0	1009.9	1004.4
20°	990.0	991.2	991.2	984.9	978.5
22.5°	959.4	963.2	964.5	957.7	950.1
25°	923.3	930.6	934.8	928.0	920.0
27.5°	879.6	890.7	903.4	898.3	889.4
30°	830.8	847.0	868.2	863.9	857.6
32.5°	784.6	800.7	830.0	828.3	824.9
35°	742.6	752.8	787.1	791.4	788.4
37.5°	702.7	712.0	744.3	754.0	751.5
40°	660.7	670.9	696.3	713.7	714.6
42.5°	619.1	628.9	649.7	674.7	674.7
45°	575.0	584.7	603.8	631.4	634.8
47.5°	531.7	541.9	560.5	588.1	593.6
50°	489.3	498.6	517.3	544.0	552.5
52.5°	445.1	455.3	473.6	498.2	510.5
55°	402.7	409.5	429.4	453.2	466.3
57.5°	358.6	364.9	387.4	407.8	421.4
60°	316.1	324.2	341.6	362.4	378.1
62.5°	275.4	283.9	298.7	317.0	334.8
65°	235.9	242.3	256.7	275.0	290.7
67.5°	197.7	203.3	217.7	230.4	247.0
70°	159.1	166.3	176.9	189.3	199.9
72.5°	128.1	131.1	140.0	148.9	160.0
75°	94.6	99.7	106.9	112.0	118.4
77.5°	67.9	70.9	75.1	79.4	85.3
80°	45.4	46.7	50.5	51.3	56.0
82.5°	27.6	28.4	29.3	29.7	31.4
85°	14.9	14.9	14.9	14.0	14.0
87.5°	8.5	8.5	7.2	5.9	4.2
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)