

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: P556444

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-96-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: P556444
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-30-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

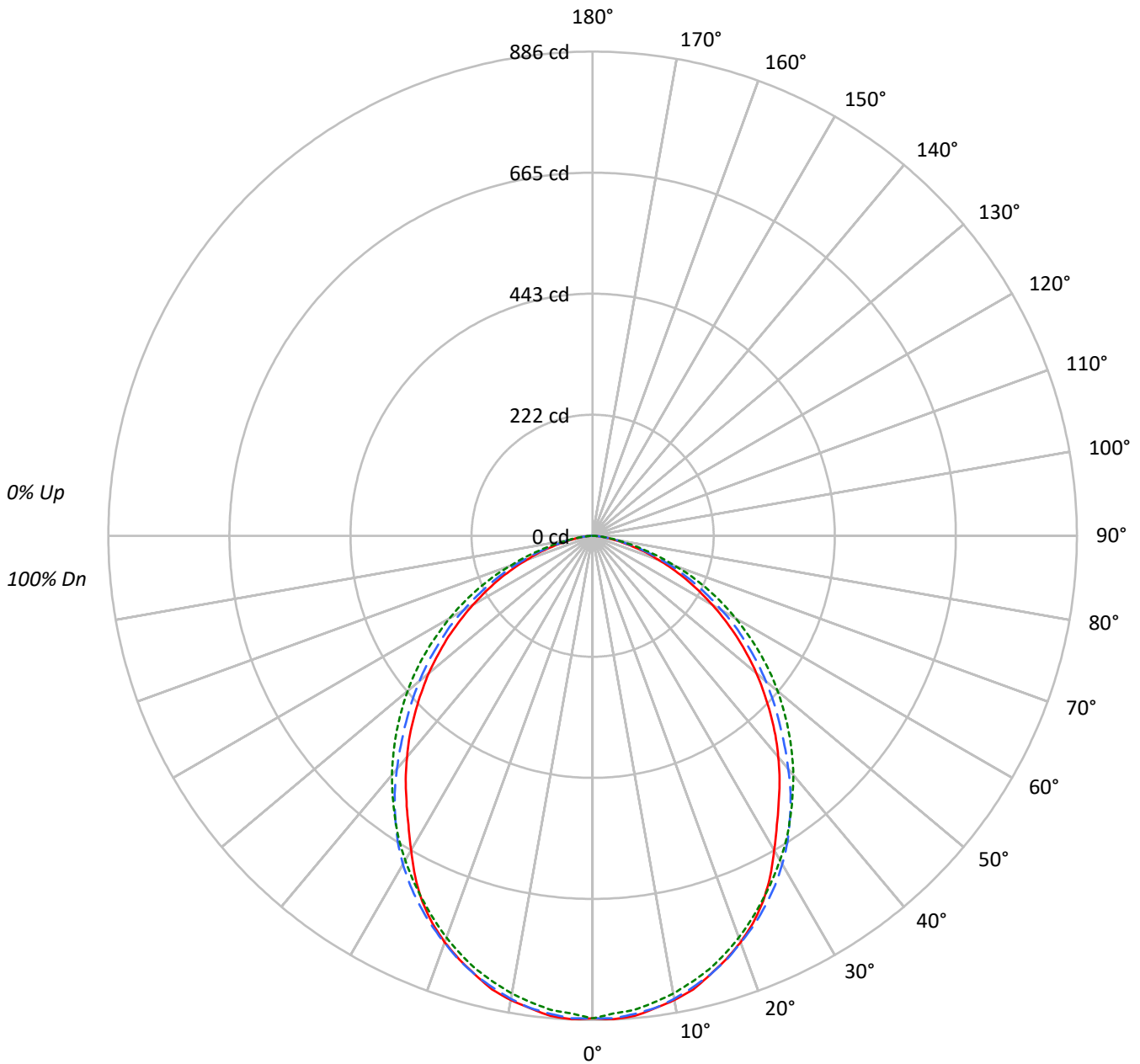
Lumens per Lamp: N/A
Luminaire Lumens: 2042.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2376	2376	2376
5°	2383	2373	2353
10°	2358	2351	2324
15°	2316	2316	2289
20°	2267	2269	2240
25°	2192	2219	2184
30°	2064	2157	2131
35°	1950	2067	2071
40°	1855	1956	2007
45°	1749	1837	1931
50°	1638	1732	1849
55°	1511	1611	1749
60°	1361	1470	1627
65°	1201	1307	1480
70°	1001	1113	1257
75°	787	889	985
80°	563	626	694
85°	367	367	346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.1	4.1
10°-20°	233.6	11.4
20°-30°	341.3	16.7
30°-40°	387.5	19.0
40°-50°	374.0	18.3
50°-60°	308.6	15.1
60°-70°	205.5	10.1
70°-80°	92.0	4.5
80°-90°	16.5	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°	658.1	32.2
0°-40°	1045.5	51.2
0°-60°	1728.1	84.6
0°-90°	2042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	883	883	883	883	883	
5°	882	882	878	874	871	83
15°	831	833	831	828	822	234
25°	738	744	747	742	736	338
35°	594	602	629	633	630	372
45°	460	468	483	505	508	355
55°	322	327	343	362	373	287
65°	189	194	205	220	232	187
75°	76	80	86	90	95	83
85°	12	12	12	11	11	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	883.1	883.1	883.1	883.1	883.1
2.5°	885.5	885.8	883.8	878.4	875.0
5°	882.1	881.8	878.4	873.6	870.9
7.5°	872.3	872.9	871.9	865.1	861.4
10°	862.8	863.1	860.4	855.0	850.5
12.5°	850.5	850.2	846.5	843.8	836.6
15°	831.2	833.2	831.2	827.5	821.7
17.5°	812.5	812.5	813.9	807.5	803.0
20°	791.5	792.5	792.5	787.4	782.3
22.5°	767.1	770.1	771.2	765.7	759.6
25°	738.2	744.0	747.4	742.0	735.5
27.5°	703.3	712.1	722.3	718.2	711.1
30°	664.3	677.2	694.1	690.7	685.7
32.5°	627.3	640.2	663.6	662.2	659.5
35°	593.7	601.9	629.3	632.7	630.4
37.5°	561.8	569.3	595.1	602.9	600.8
40°	528.2	536.4	556.7	570.6	571.3
42.5°	495.0	502.8	519.4	539.4	539.4
45°	459.7	467.5	482.8	504.8	507.5
47.5°	425.1	433.2	448.2	470.2	474.6
50°	391.2	398.6	413.6	434.9	441.7
52.5°	355.9	364.0	378.6	398.3	408.1
55°	322.0	327.4	343.3	362.3	372.9
57.5°	286.7	291.8	309.8	326.0	336.9
60°	252.8	259.2	273.1	289.7	302.3
62.5°	220.2	227.0	238.8	253.4	267.7
65°	188.6	193.7	205.3	219.8	232.4
67.5°	158.1	162.5	174.0	184.2	197.5
70°	127.2	133.0	141.5	151.3	159.8
72.5°	102.5	104.8	112.0	119.1	127.9
75°	75.7	79.7	85.5	89.6	94.7
77.5°	54.3	56.7	60.1	63.4	68.2
80°	36.3	37.3	40.4	41.1	44.8
82.5°	22.1	22.7	23.4	23.7	25.1
85°	11.9	11.9	11.9	11.2	11.2
87.5°	6.8	6.8	5.8	4.7	3.4
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)