

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: P556445

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-96-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: P556445
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
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

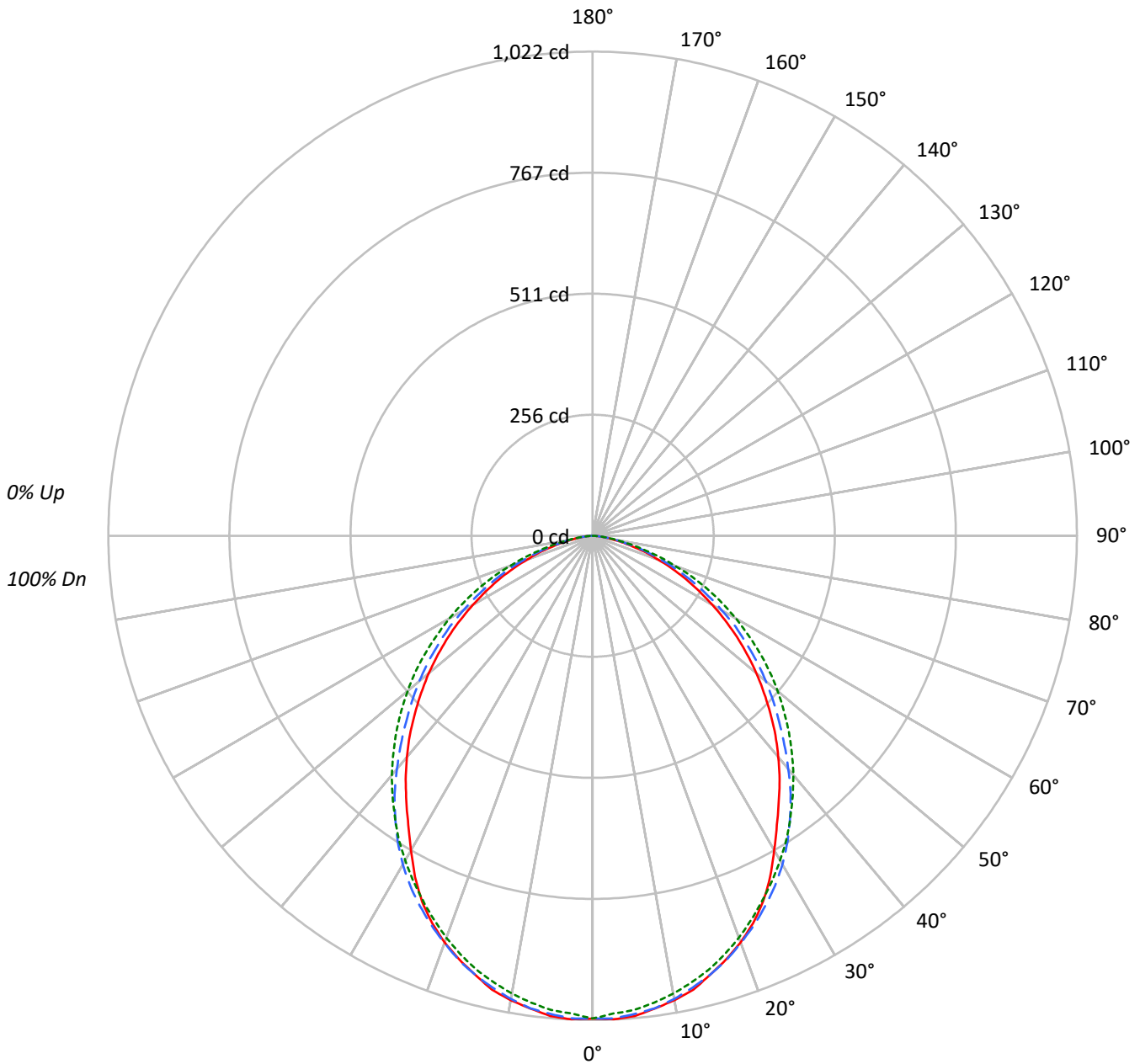
Lumens per Lamp: N/A
Luminaire Lumens: 2356.0 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2742	2742	2742
5°	2749	2737	2714
10°	2720	2713	2681
15°	2672	2672	2641
20°	2615	2619	2585
25°	2529	2560	2520
30°	2381	2489	2458
35°	2250	2385	2389
40°	2141	2256	2316
45°	2019	2120	2229
50°	1889	1998	2134
55°	1743	1858	2018
60°	1569	1696	1877
65°	1386	1508	1707
70°	1155	1284	1451
75°	908	1025	1135
80°	649	722	801
85°	423	423	398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	4.1
10°-20°	269.5	11.4
20°-30°	393.8	16.7
30°-40°	447.0	19.0
40°-50°	431.6	18.3
50°-60°	356.0	15.1
60°-70°	237.1	10.1
70°-80°	106.1	4.5
80°-90°	19.0	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°	759.3	32.2
0°-40°	1206.3	51.2
0°-60°	1993.9	84.6
0°-90°	2356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2356.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1018	1017	1013	1008	1005	96
15°	959	961	959	955	948	270
25°	852	858	862	856	849	390
35°	685	694	726	730	727	429
45°	530	539	557	582	586	409
55°	372	378	396	418	430	332
65°	218	224	237	254	268	216
75°	87	92	99	103	109	95
85°	14	14	14	13	13	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1018.9	1018.9	1018.9	1018.9	1018.9
2.5°	1021.6	1022.0	1019.7	1013.4	1009.5
5°	1017.7	1017.3	1013.4	1007.9	1004.8
7.5°	1006.4	1007.2	1006.0	998.2	993.9
10°	995.4	995.8	992.7	986.4	981.3
12.5°	981.3	980.9	976.6	973.5	965.3
15°	959.0	961.4	959.0	954.7	948.1
17.5°	937.5	937.5	939.1	931.6	926.5
20°	913.2	914.4	914.4	908.5	902.7
22.5°	885.0	888.6	889.7	883.5	876.4
25°	851.8	858.4	862.3	856.1	848.6
27.5°	811.4	821.6	833.4	828.7	820.5
30°	766.4	781.3	800.9	797.0	791.1
32.5°	723.8	738.6	765.6	764.1	761.0
35°	685.0	694.4	726.1	730.0	727.3
37.5°	648.2	656.8	686.6	695.6	693.2
40°	609.5	618.9	642.3	658.4	659.2
42.5°	571.1	580.1	599.3	622.4	622.4
45°	530.4	539.4	557.0	582.5	585.6
47.5°	490.5	499.9	517.1	542.5	547.6
50°	451.3	459.9	477.2	501.8	509.7
52.5°	410.6	420.0	436.8	459.5	470.9
55°	371.5	377.7	396.1	418.1	430.2
57.5°	330.8	336.6	357.4	376.2	388.7
60°	291.6	299.1	315.1	334.3	348.8
62.5°	254.0	261.9	275.6	292.4	308.8
65°	217.6	223.5	236.8	253.7	268.1
67.5°	182.4	187.5	200.8	212.6	227.8
70°	146.8	153.4	163.2	174.6	184.4
72.5°	118.2	121.0	129.2	137.4	147.6
75°	87.3	92.0	98.6	103.3	109.2
77.5°	62.6	65.4	69.3	73.2	78.7
80°	41.9	43.1	46.6	47.4	51.7
82.5°	25.4	26.2	27.0	27.4	29.0
85°	13.7	13.7	13.7	12.9	12.9
87.5°	7.8	7.8	6.7	5.5	3.9
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)