

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: P556649

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-93-88-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: P556649
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-50-UNV-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

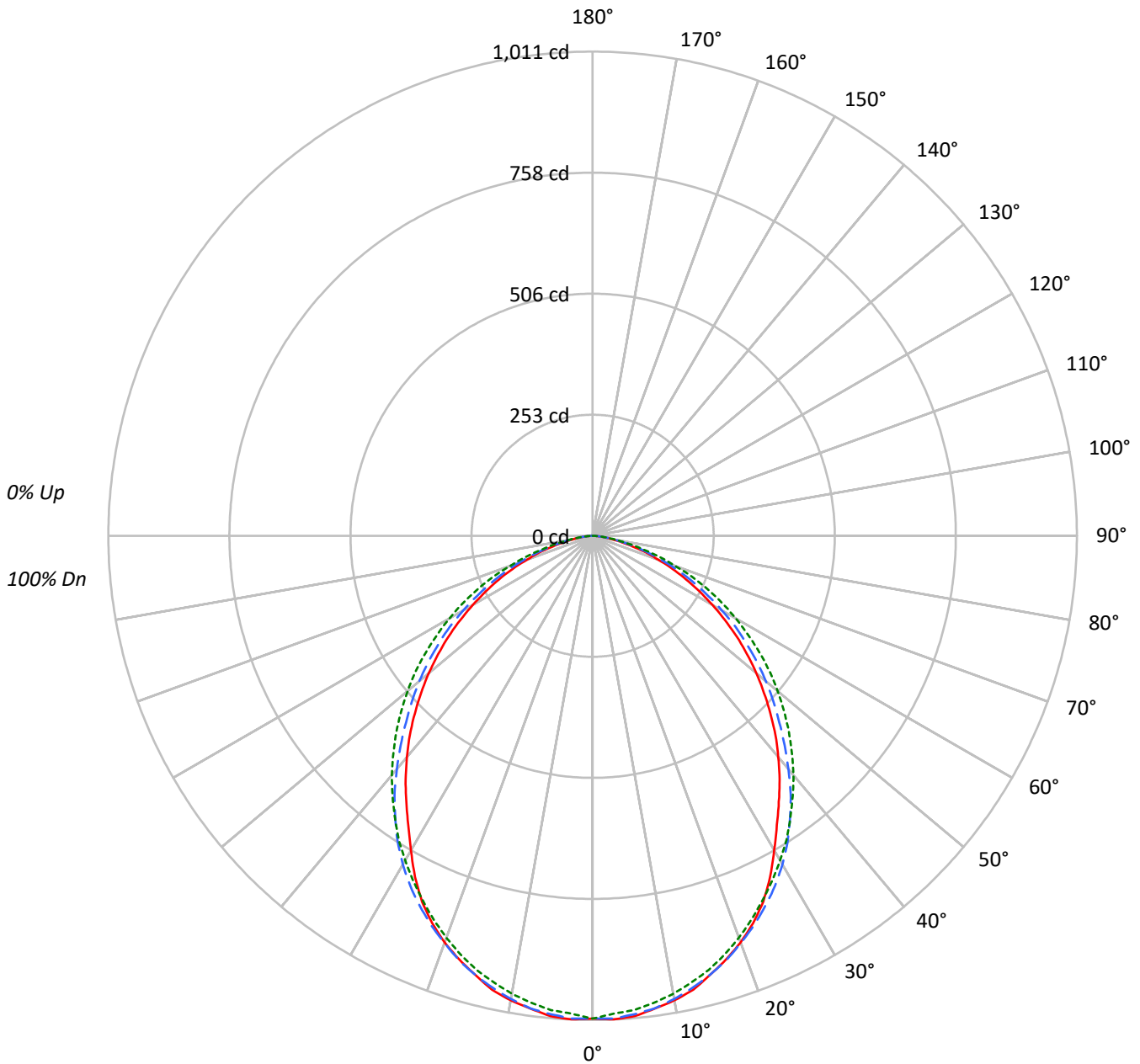
Lumens per Lamp: N/A
Luminaire Lumens: 2331.0 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2713	2713	2713
5°	2720	2709	2686
10°	2691	2684	2653
15°	2643	2643	2613
20°	2587	2591	2558
25°	2502	2533	2493
30°	2356	2462	2432
35°	2226	2360	2364
40°	2118	2232	2291
45°	1997	2097	2205
50°	1869	1976	2111
55°	1724	1839	1997
60°	1553	1678	1857
65°	1371	1492	1689
70°	1142	1271	1435
75°	898	1015	1124
80°	642	714	792
85°	420	420	395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	4.1
10°-20°	266.6	11.4
20°-30°	389.7	16.7
30°-40°	442.3	19.0
40°-50°	427.0	18.3
50°-60°	352.2	15.1
60°-70°	234.5	10.1
70°-80°	105.0	4.5
80°-90°	18.8	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°	751.2	32.2
0°-40°	1193.5	51.2
0°-60°	1972.7	84.6
0°-90°	2331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1007	1006	1003	997	994	95
15°	949	951	949	945	938	267
25°	843	849	853	847	840	386
35°	678	687	718	722	720	425
45°	525	534	551	576	579	405
55°	368	374	392	414	426	328
65°	215	221	234	251	265	213
75°	86	91	98	102	108	94
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°	1008.1	1008.1	1008.1	1008.1	1008.1
2.5°	1010.8	1011.2	1008.9	1002.7	998.8
5°	1006.9	1006.5	1002.7	997.3	994.2
7.5°	995.7	996.5	995.3	987.6	983.3
10°	984.9	985.2	982.1	976.0	970.9
12.5°	970.9	970.5	966.3	963.2	955.0
15°	948.8	951.2	948.8	944.6	938.0
17.5°	927.5	927.5	929.1	921.7	916.7
20°	903.5	904.7	904.7	898.9	893.1
22.5°	875.6	879.1	880.3	874.1	867.1
25°	842.7	849.3	853.2	847.0	839.6
27.5°	802.8	812.9	824.5	819.9	811.7
30°	758.3	773.0	792.4	788.5	782.7
32.5°	716.1	730.8	757.5	756.0	752.9
35°	677.7	687.0	718.4	722.3	719.6
37.5°	641.3	649.9	679.3	688.2	685.9
40°	603.0	612.3	635.5	651.4	652.2
42.5°	565.0	574.0	592.9	615.8	615.8
45°	524.8	533.7	551.1	576.3	579.4
47.5°	485.3	494.6	511.6	536.8	541.8
50°	446.5	455.1	472.1	496.5	504.2
52.5°	406.3	415.6	432.2	454.7	465.9
55°	367.5	373.7	391.9	413.6	425.6
57.5°	327.3	333.1	353.6	372.2	384.6
60°	288.5	295.9	311.8	330.7	345.1
62.5°	251.3	259.1	272.6	289.3	305.6
65°	215.3	221.1	234.3	251.0	265.3
67.5°	180.5	185.5	198.7	210.3	225.4
70°	145.2	151.8	161.5	172.7	182.4
72.5°	117.0	119.7	127.8	135.9	146.0
75°	86.4	91.0	97.6	102.2	108.1
77.5°	62.0	64.7	68.5	72.4	77.8
80°	41.4	42.6	46.1	46.9	51.1
82.5°	25.2	25.9	26.7	27.1	28.7
85°	13.6	13.6	13.6	12.8	12.8
87.5°	7.7	7.7	6.6	5.4	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)