

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: P556441

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-82-88-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: P556441
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-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

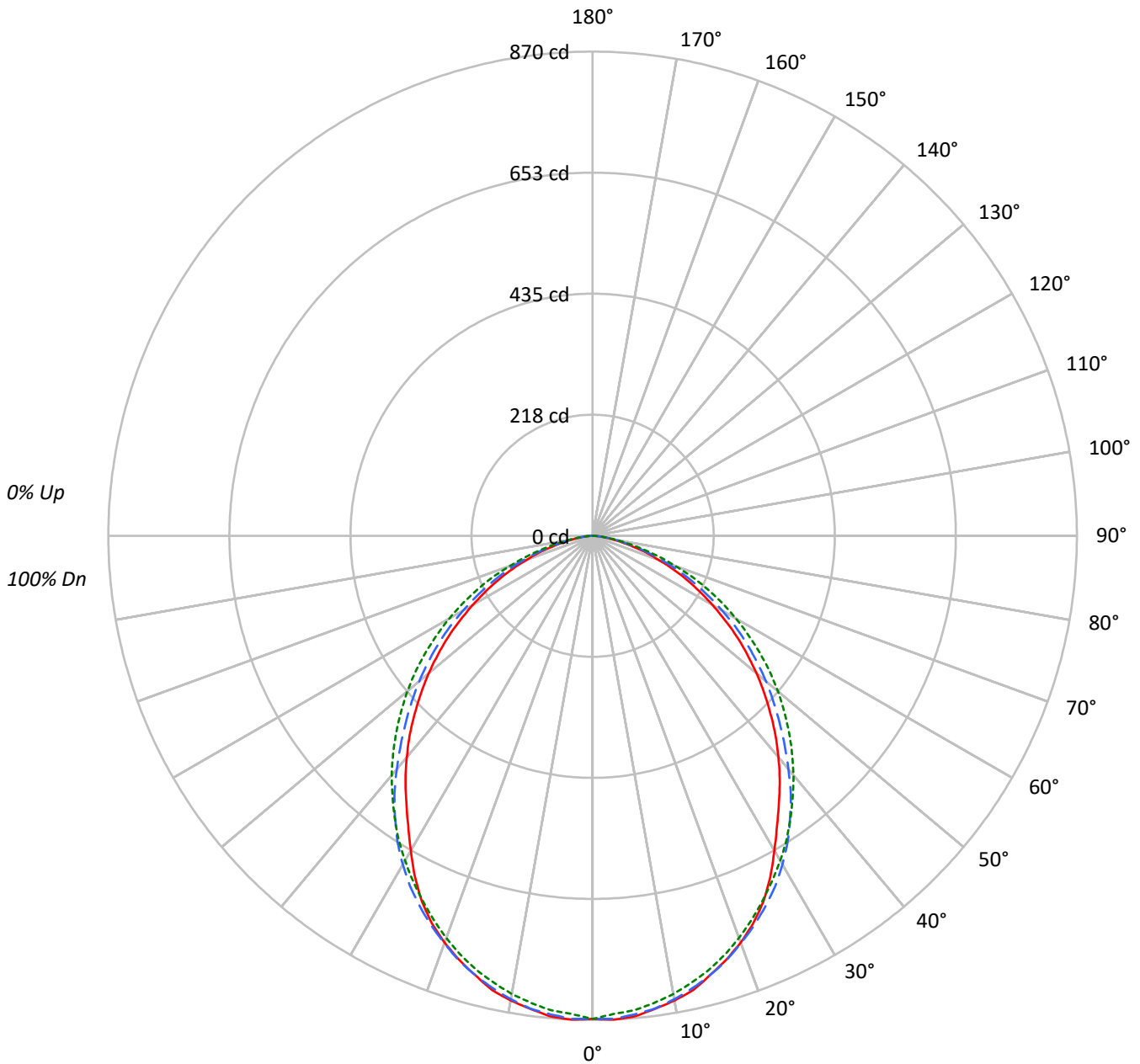
Lumens per Lamp: N/A
Luminaire Lumens: 2007.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2336	2336	2336
5°	2342	2332	2312
10°	2317	2311	2284
15°	2276	2276	2250
20°	2228	2231	2202
25°	2154	2181	2146
30°	2029	2120	2094
35°	1917	2032	2035
40°	1824	1922	1972
45°	1719	1806	1898
50°	1610	1702	1818
55°	1484	1583	1719
60°	1337	1445	1599
65°	1181	1284	1454
70°	983	1094	1236
75°	774	873	967
80°	553	615	682
85°	361	361	340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	4.1
10°-20°	229.6	11.4
20°-30°	335.5	16.7
30°-40°	380.8	19.0
40°-50°	367.6	18.3
50°-60°	303.3	15.1
60°-70°	202.0	10.1
70°-80°	90.4	4.5
80°-90°	16.2	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°	646.8	32.2
0°-40°	1027.6	51.2
0°-60°	1698.5	84.6
0°-90°	2007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	867	867	863	859	856	82
15°	817	819	817	813	808	230
25°	726	731	735	729	723	332
35°	584	592	619	622	620	366
45°	452	460	474	496	499	349
55°	316	322	338	356	366	282
65°	185	190	202	216	228	184
75°	74	78	84	88	93	81
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°	868.0	868.0	868.0	868.0	868.0
2.5°	870.3	870.6	868.6	863.3	860.0
5°	867.0	866.6	863.3	858.6	856.0
7.5°	857.3	858.0	857.0	850.3	846.6
10°	848.0	848.3	845.6	840.3	836.0
12.5°	836.0	835.6	832.0	829.3	822.3
15°	817.0	819.0	817.0	813.3	807.6
17.5°	798.6	798.6	800.0	793.6	789.3
20°	777.9	778.9	778.9	773.9	768.9
22.5°	753.9	756.9	757.9	752.6	746.6
25°	725.6	731.3	734.6	729.3	722.9
27.5°	691.2	699.9	709.9	705.9	698.9
30°	652.9	665.6	682.2	678.9	673.9
32.5°	616.6	629.2	652.2	650.9	648.2
35°	583.5	591.5	618.6	621.9	619.6
37.5°	552.2	559.5	584.9	592.5	590.5
40°	519.2	527.2	547.2	560.9	561.5
42.5°	486.5	494.2	510.5	530.2	530.2
45°	451.8	459.5	474.5	496.2	498.8
47.5°	417.8	425.8	440.5	462.2	466.5
50°	384.5	391.8	406.5	427.5	434.2
52.5°	349.8	357.8	372.1	391.5	401.1
55°	316.4	321.8	337.5	356.1	366.5
57.5°	281.8	286.8	304.4	320.4	331.1
60°	248.4	254.8	268.4	284.8	297.1
62.5°	216.4	223.1	234.8	249.1	263.1
65°	185.4	190.4	201.7	216.1	228.4
67.5°	155.4	159.7	171.1	181.1	194.1
70°	125.0	130.7	139.0	148.7	157.1
72.5°	100.7	103.0	110.0	117.0	125.7
75°	74.4	78.4	84.0	88.0	93.0
77.5°	53.4	55.7	59.0	62.4	67.0
80°	35.7	36.7	39.7	40.3	44.0
82.5°	21.7	22.3	23.0	23.3	24.7
85°	11.7	11.7	11.7	11.0	11.0
87.5°	6.7	6.7	5.7	4.7	3.3
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)