

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: P556428

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-81-96-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: P556428
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-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

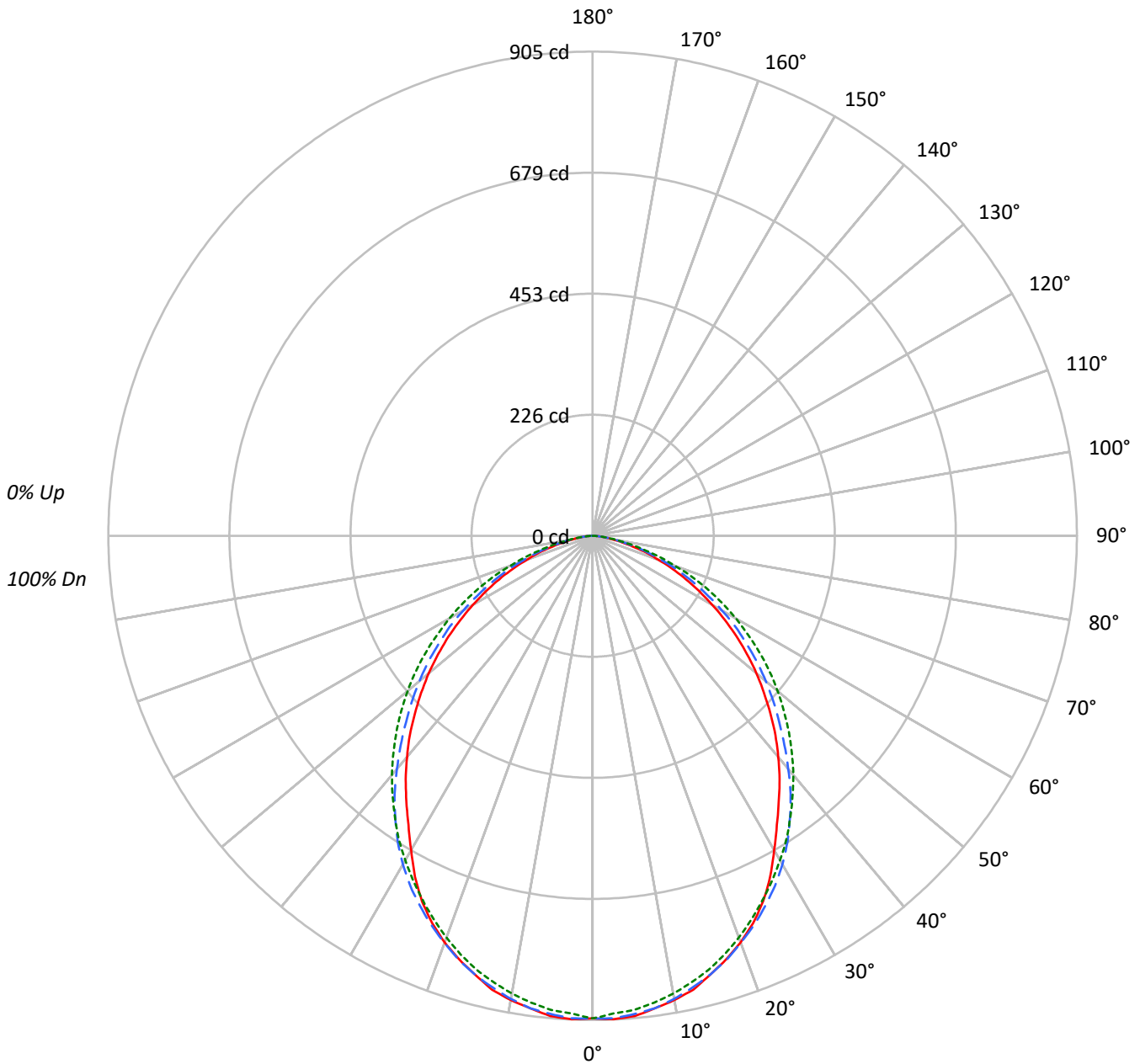
Lumens per Lamp: N/A
Luminaire Lumens: 2086.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				20				
RC	80				70				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°	2428	2428	2428
5°	2434	2424	2403
10°	2408	2402	2374
15°	2366	2366	2338
20°	2316	2318	2289
25°	2239	2267	2231
30°	2109	2203	2176
35°	1992	2112	2115
40°	1896	1998	2050
45°	1787	1877	1973
50°	1673	1769	1889
55°	1543	1645	1787
60°	1390	1502	1662
65°	1227	1335	1512
70°	1023	1137	1284
75°	804	908	1005
80°	575	638	708
85°	374	374	352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.9	4.1
10°-20°	238.6	11.4
20°-30°	348.7	16.7
30°-40°	395.8	19.0
40°-50°	382.1	18.3
50°-60°	315.2	15.1
60°-70°	209.9	10.1
70°-80°	93.9	4.5
80°-90°	16.8	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°	672.3	32.2
0°-40°	1068.1	51.2
0°-60°	1765.4	84.6
0°-90°	2086.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2086.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	901	901	897	892	890	85
15°	849	851	849	845	839	239
25°	754	760	764	758	751	345
35°	606	615	643	646	644	380
45°	470	478	493	516	518	362
55°	329	334	351	370	381	294
65°	193	198	210	225	237	191
75°	77	81	87	92	97	85
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°	902.1	902.1	902.1	902.1	902.1
2.5°	904.6	904.9	902.8	897.3	893.8
5°	901.1	900.8	897.3	892.4	889.7
7.5°	891.1	891.7	890.7	883.8	880.0
10°	881.3	881.7	878.9	873.4	868.9
12.5°	868.9	868.5	864.7	861.9	854.7
15°	849.1	851.2	849.1	845.3	839.4
17.5°	830.1	830.1	831.4	824.9	820.3
20°	808.6	809.6	809.6	804.4	799.2
22.5°	783.6	786.7	787.8	782.2	776.0
25°	754.2	760.0	763.5	758.0	751.4
27.5°	718.5	727.5	737.9	733.7	726.4
30°	678.6	691.8	709.1	705.6	700.4
32.5°	640.8	654.0	677.9	676.5	673.7
35°	606.5	614.8	642.9	646.4	643.9
37.5°	573.9	581.6	607.9	615.9	613.8
40°	539.6	547.9	568.7	582.9	583.6
42.5°	505.7	513.6	530.6	551.1	551.1
45°	469.6	477.6	493.2	515.7	518.5
47.5°	434.3	442.6	457.8	480.4	484.9
50°	399.6	407.2	422.5	444.3	451.2
52.5°	363.6	371.9	386.8	406.9	416.9
55°	328.9	334.4	350.7	370.1	380.9
57.5°	292.9	298.1	316.4	333.1	344.2
60°	258.2	264.8	279.0	296.0	308.8
62.5°	224.9	231.9	244.0	258.9	273.4
65°	192.7	197.9	209.7	224.6	237.4
67.5°	161.5	166.0	177.8	188.2	201.7
70°	130.0	135.9	144.5	154.6	163.2
72.5°	104.7	107.1	114.4	121.6	130.7
75°	77.3	81.4	87.3	91.5	96.7
77.5°	55.5	57.9	61.3	64.8	69.7
80°	37.1	38.1	41.2	41.9	45.7
82.5°	22.5	23.2	23.9	24.3	25.6
85°	12.1	12.1	12.1	11.4	11.4
87.5°	6.9	6.9	5.9	4.9	3.5
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)