

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: P556332

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-93-96-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: P556332
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-LD4-1HI-40-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

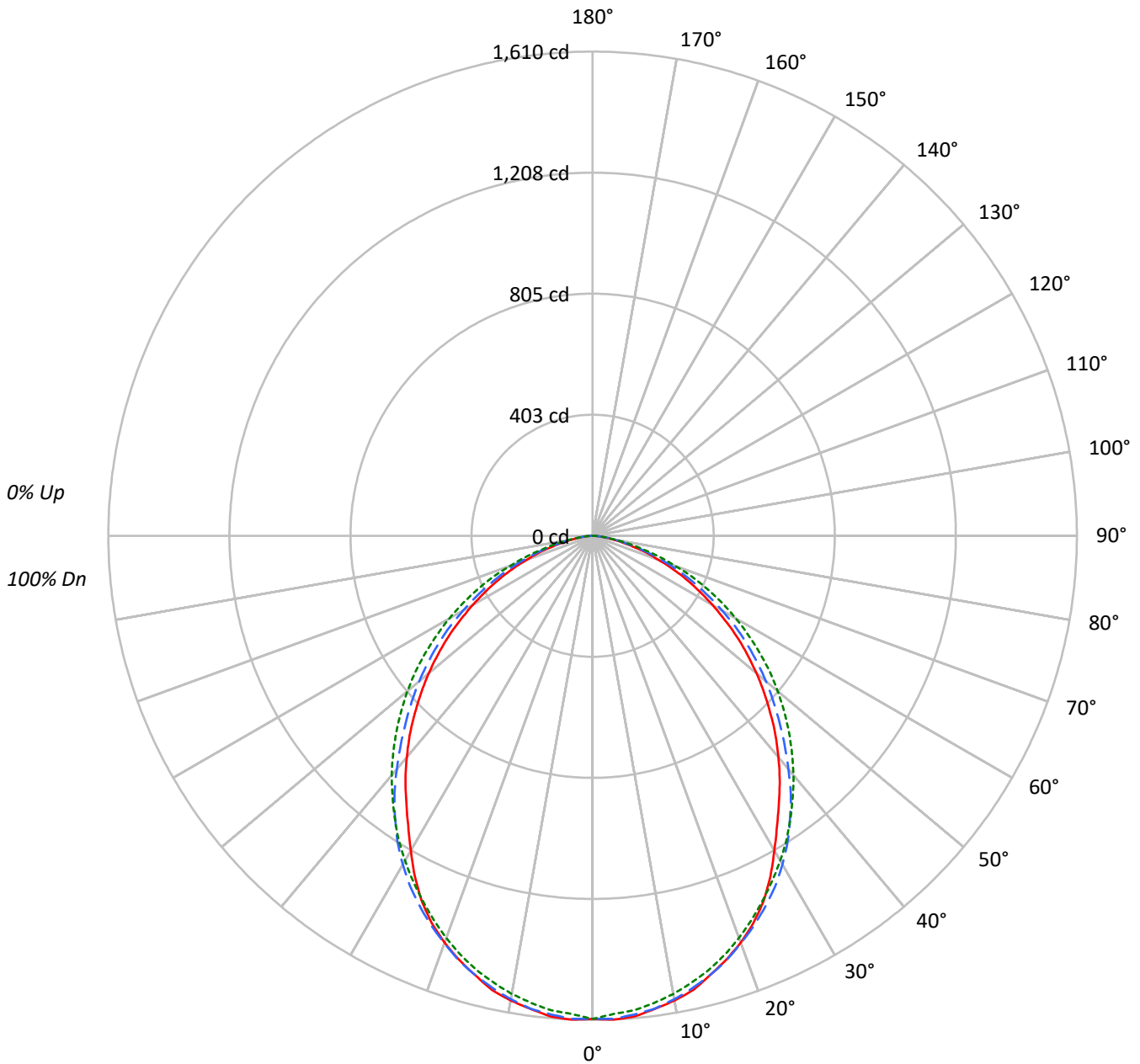
Lumens per Lamp: N/A
Luminaire Lumens: 3714.0 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): 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°	4322	4322	4322
5°	4334	4316	4279
10°	4288	4276	4227
15°	4212	4212	4164
20°	4123	4128	4075
25°	3987	4036	3972
30°	3754	3923	3875
35°	3548	3760	3766
40°	3375	3557	3650
45°	3182	3342	3513
50°	2979	3149	3363
55°	2747	2930	3181
60°	2474	2673	2959
65°	2185	2377	2691
70°	1821	2024	2286
75°	1431	1617	1790
80°	1023	1137	1263
85°	667	667	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.2	4.1
10°-20°	424.8	11.4
20°-30°	620.8	16.7
30°-40°	704.7	19.0
40°-50°	680.3	18.3
50°-60°	561.2	15.1
60°-70°	373.7	10.1
70°-80°	167.2	4.5
80°-90°	29.9	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°	1196.9	32.2
0°-40°	1901.6	51.2
0°-60°	3143.1	84.6
0°-90°	3714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1604	1604	1598	1589	1584	152
15°	1512	1516	1512	1505	1494	426
25°	1343	1353	1359	1350	1338	615
35°	1080	1095	1145	1151	1146	677
45°	836	850	878	918	923	645
55°	586	596	624	659	678	523
65°	343	352	373	400	423	340
75°	138	145	156	163	172	150
85°	22	22	22	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1606.2	1606.2	1606.2	1606.2	1606.2
2.5°	1610.5	1611.1	1607.4	1597.6	1591.4
5°	1604.4	1603.7	1597.6	1588.9	1584.0
7.5°	1586.5	1587.7	1585.8	1573.5	1566.7
10°	1569.2	1569.8	1564.9	1555.0	1547.0
12.5°	1547.0	1546.4	1539.6	1534.6	1521.7
15°	1511.8	1515.5	1511.8	1505.0	1494.5
17.5°	1477.9	1477.9	1480.3	1468.6	1460.6
20°	1439.6	1441.5	1441.5	1432.2	1422.9
22.5°	1395.2	1400.7	1402.6	1392.7	1381.6
25°	1342.7	1353.2	1359.4	1349.5	1337.8
27.5°	1279.2	1295.2	1313.7	1306.3	1293.4
30°	1208.2	1231.7	1262.5	1256.3	1247.1
32.5°	1140.9	1164.4	1207.0	1204.5	1199.6
35°	1079.9	1094.7	1144.6	1150.8	1146.5
37.5°	1021.9	1035.4	1082.3	1096.5	1092.8
40°	960.8	975.6	1012.6	1037.9	1039.1
42.5°	900.3	914.5	944.7	981.1	981.1
45°	836.1	850.3	878.1	918.2	923.1
47.5°	773.2	788.0	815.1	855.2	863.3
50°	711.5	725.0	752.2	791.1	803.4
52.5°	647.3	662.1	688.6	724.4	742.3
55°	585.6	595.5	624.5	659.0	678.1
57.5°	521.4	530.7	563.4	593.0	612.7
60°	459.7	471.4	496.7	527.0	549.8
62.5°	400.5	412.8	434.4	460.9	486.9
65°	343.1	352.3	373.3	399.9	422.7
67.5°	287.6	295.6	316.6	335.1	359.1
70°	231.4	241.9	257.3	275.2	290.6
72.5°	186.4	190.7	203.6	216.6	232.6
75°	137.6	145.0	155.5	162.9	172.2
77.5°	98.7	103.0	109.2	115.4	124.0
80°	66.0	67.9	73.4	74.7	81.5
82.5°	40.1	41.3	42.6	43.2	45.7
85°	21.6	21.6	21.6	20.4	20.4
87.5°	12.3	12.3	10.5	8.6	6.2
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)