

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: P557209

Luminaire Tested: **FUSL-12-4-LD4-2LO-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: P557209
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-LD4-2LO-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

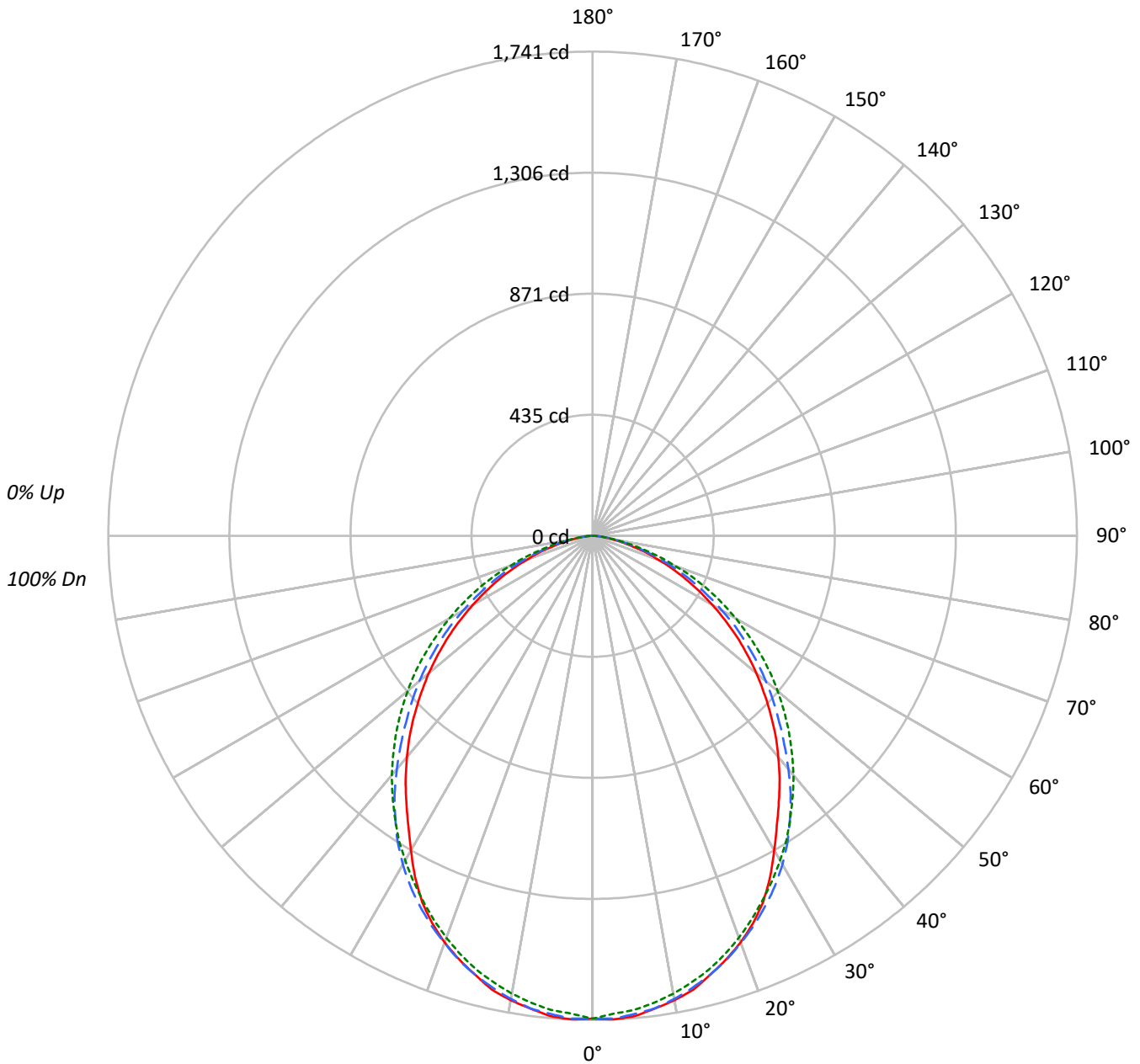
Lumens per Lamp: N/A
Luminaire Lumens: 4014.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	4672	4672	4672
5°	4684	4664	4624
10°	4634	4621	4568
15°	4552	4552	4500
20°	4456	4461	4404
25°	4309	4362	4293
30°	4057	4240	4188
35°	3834	4064	4071
40°	3648	3844	3945
45°	3439	3612	3797
50°	3219	3404	3635
55°	2969	3166	3438
60°	2674	2890	3198
65°	2361	2569	2909
70°	1968	2188	2471
75°	1546	1748	1935
80°	1106	1230	1364
85°	719	719	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.4	4.1
10°-20°	459.2	11.4
20°-30°	671.0	16.7
30°-40°	761.6	19.0
40°-50°	735.3	18.3
50°-60°	606.5	15.1
60°-70°	403.9	10.1
70°-80°	180.7	4.5
80°-90°	32.3	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°	1293.6	32.2
0°-40°	2055.2	51.2
0°-60°	3397.0	84.6
0°-90°	4014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4014.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1736	1736	1736	1736	1736	
5°	1734	1733	1727	1717	1712	164
15°	1634	1638	1634	1627	1615	461
25°	1451	1462	1469	1458	1446	665
35°	1167	1183	1237	1244	1239	731
45°	904	919	949	992	998	697
55°	633	644	675	712	733	565
65°	371	381	404	432	457	368
75°	149	157	168	176	186	163
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1736.0	1736.0	1736.0	1736.0	1736.0
2.5°	1740.6	1741.3	1737.3	1726.6	1719.9
5°	1734.0	1733.3	1726.6	1717.3	1711.9
7.5°	1714.6	1715.9	1713.9	1700.6	1693.3
10°	1695.9	1696.6	1691.3	1680.6	1671.9
12.5°	1671.9	1671.3	1663.9	1658.6	1644.6
15°	1633.9	1637.9	1633.9	1626.6	1615.2
17.5°	1597.2	1597.2	1599.9	1587.2	1578.6
20°	1555.9	1557.9	1557.9	1547.9	1537.9
22.5°	1507.9	1513.9	1515.9	1505.2	1493.2
25°	1451.2	1462.5	1469.2	1458.5	1445.8
27.5°	1382.5	1399.8	1419.8	1411.8	1397.8
30°	1305.8	1331.1	1364.5	1357.8	1347.8
32.5°	1233.1	1258.4	1304.5	1301.8	1296.5
35°	1167.1	1183.1	1237.1	1243.8	1239.1
37.5°	1104.4	1119.1	1169.7	1185.1	1181.1
40°	1038.4	1054.4	1094.4	1121.7	1123.1
42.5°	973.0	988.4	1021.0	1060.4	1060.4
45°	903.7	919.0	949.0	992.4	997.7
47.5°	835.6	851.6	881.0	924.3	933.0
50°	768.9	783.6	813.0	855.0	868.3
52.5°	699.6	715.6	744.3	782.9	802.3
55°	632.9	643.6	674.9	712.3	732.9
57.5°	563.5	573.5	608.9	640.9	662.2
60°	496.8	509.5	536.9	569.5	594.2
62.5°	432.8	446.2	469.5	498.2	526.2
65°	370.8	380.8	403.5	432.2	456.8
67.5°	310.8	319.4	342.1	362.1	388.1
70°	250.1	261.4	278.1	297.4	314.1
72.5°	201.4	206.1	220.1	234.1	251.4
75°	148.7	156.7	168.1	176.1	186.1
77.5°	106.7	111.4	118.0	124.7	134.0
80°	71.4	73.4	79.4	80.7	88.0
82.5°	43.3	44.7	46.0	46.7	49.4
85°	23.3	23.3	23.3	22.0	22.0
87.5°	13.3	13.3	11.3	9.3	6.7
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)