

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: P557396

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-82-86-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: P557396
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-50-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

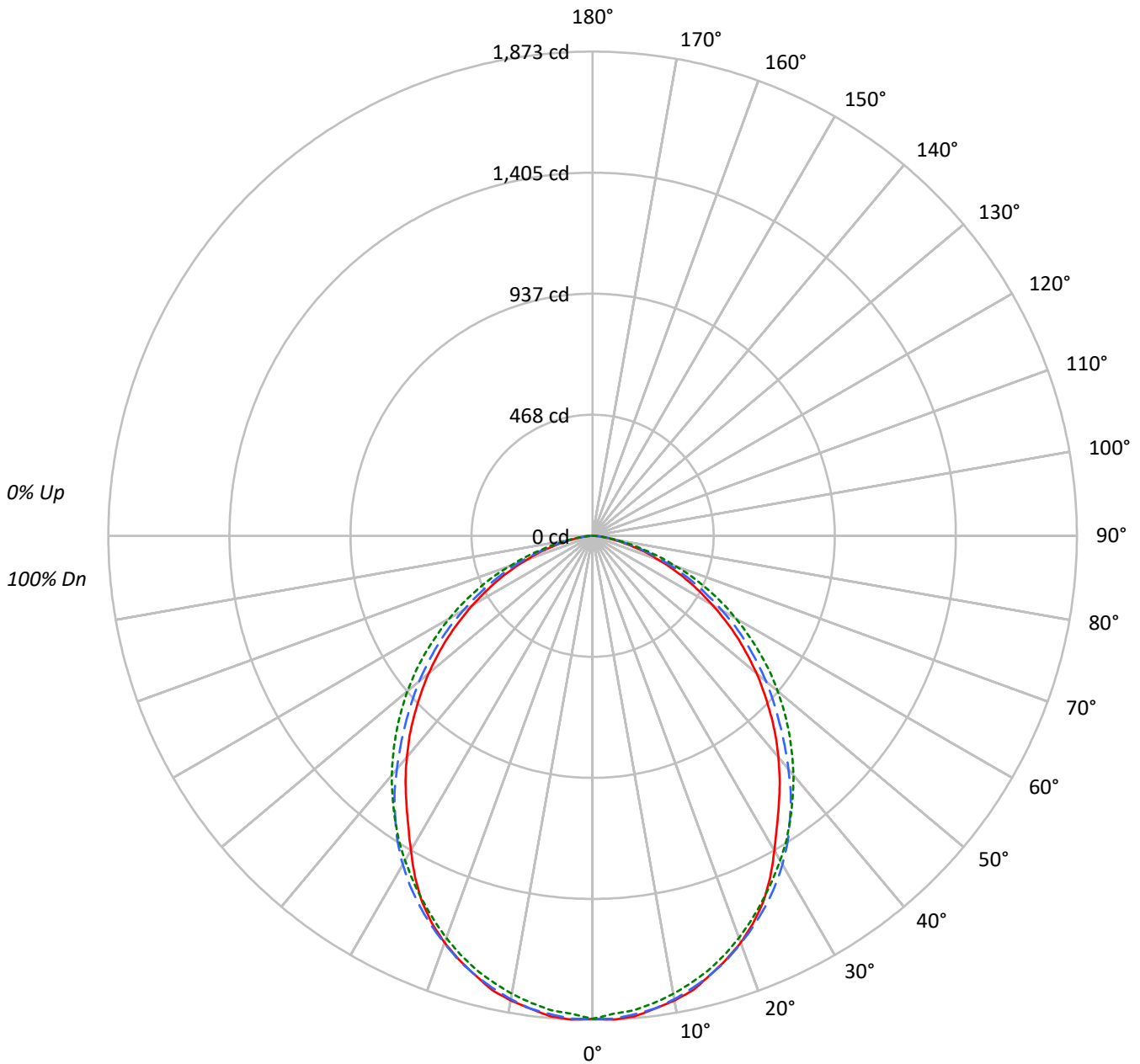
Lumens per Lamp: N/A
Luminaire Lumens: 4320.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	5028	5028	5028
5°	5041	5019	4977
10°	4987	4974	4917
15°	4899	4899	4843
20°	4795	4802	4740
25°	4637	4695	4620
30°	4367	4563	4507
35°	4126	4374	4381
40°	3926	4137	4246
45°	3701	3887	4086
50°	3465	3663	3912
55°	3195	3408	3701
60°	2878	3110	3442
65°	2541	2765	3131
70°	2118	2355	2660
75°	1665	1881	2083
80°	1190	1323	1468
85°	775	775	732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.9	4.1
10°-20°	494.2	11.4
20°-30°	722.1	16.7
30°-40°	819.7	19.0
40°-50°	791.3	18.3
50°-60°	652.8	15.1
60°-70°	434.7	10.1
70°-80°	194.5	4.5
80°-90°	34.8	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°	1392.2	32.2
0°-40°	2211.9	51.2
0°-60°	3656.0	84.6
0°-90°	4320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4320.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1868	1868	1868	1868	1868	
5°	1866	1865	1858	1848	1842	177
15°	1758	1763	1758	1751	1738	496
25°	1562	1574	1581	1570	1556	715
35°	1256	1273	1331	1339	1334	787
45°	972	989	1021	1068	1074	750
55°	681	693	726	767	789	608
65°	399	410	434	465	492	396
75°	160	169	181	190	200	175
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1868.3	1868.3	1868.3	1868.3	1868.3
2.5°	1873.3	1874.0	1869.7	1858.2	1851.1
5°	1866.1	1865.4	1858.2	1848.2	1842.4
7.5°	1845.3	1846.8	1844.6	1830.2	1822.4
10°	1825.2	1825.9	1820.2	1808.7	1799.4
12.5°	1799.4	1798.7	1790.8	1785.0	1770.0
15°	1758.5	1762.8	1758.5	1750.6	1738.4
17.5°	1719.0	1719.0	1721.9	1708.2	1698.9
20°	1674.5	1676.7	1676.7	1665.9	1655.1
22.5°	1622.8	1629.3	1631.4	1619.9	1607.0
25°	1561.8	1574.0	1581.2	1569.7	1556.1
27.5°	1487.9	1506.5	1528.1	1519.5	1504.4
30°	1405.3	1432.6	1468.5	1461.3	1450.6
32.5°	1327.1	1354.4	1403.9	1401.0	1395.3
35°	1256.1	1273.3	1331.4	1338.6	1333.6
37.5°	1188.6	1204.4	1258.9	1275.4	1271.1
40°	1117.5	1134.8	1177.8	1207.2	1208.7
42.5°	1047.2	1063.7	1098.9	1141.2	1141.2
45°	972.5	989.1	1021.4	1068.0	1073.7
47.5°	899.3	916.6	948.1	994.8	1004.1
50°	827.6	843.3	874.9	920.1	934.5
52.5°	752.9	770.1	801.0	842.6	863.4
55°	681.1	692.6	726.4	766.6	788.8
57.5°	606.5	617.3	655.3	689.8	712.7
60°	534.7	548.4	577.8	613.0	639.5
62.5°	465.8	480.2	505.3	536.2	566.3
65°	399.1	409.8	434.2	465.1	491.7
67.5°	334.5	343.8	368.2	389.7	417.7
70°	269.2	281.4	299.3	320.1	338.1
72.5°	216.8	221.8	236.9	251.9	270.6
75°	160.1	168.7	180.9	189.5	200.3
77.5°	114.8	119.9	127.0	134.2	144.3
80°	76.8	79.0	85.4	86.8	94.7
82.5°	46.7	48.1	49.5	50.2	53.1
85°	25.1	25.1	25.1	23.7	23.7
87.5°	14.4	14.4	12.2	10.0	7.2
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)