

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: P557248

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-81-84-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: P557248
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-35-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

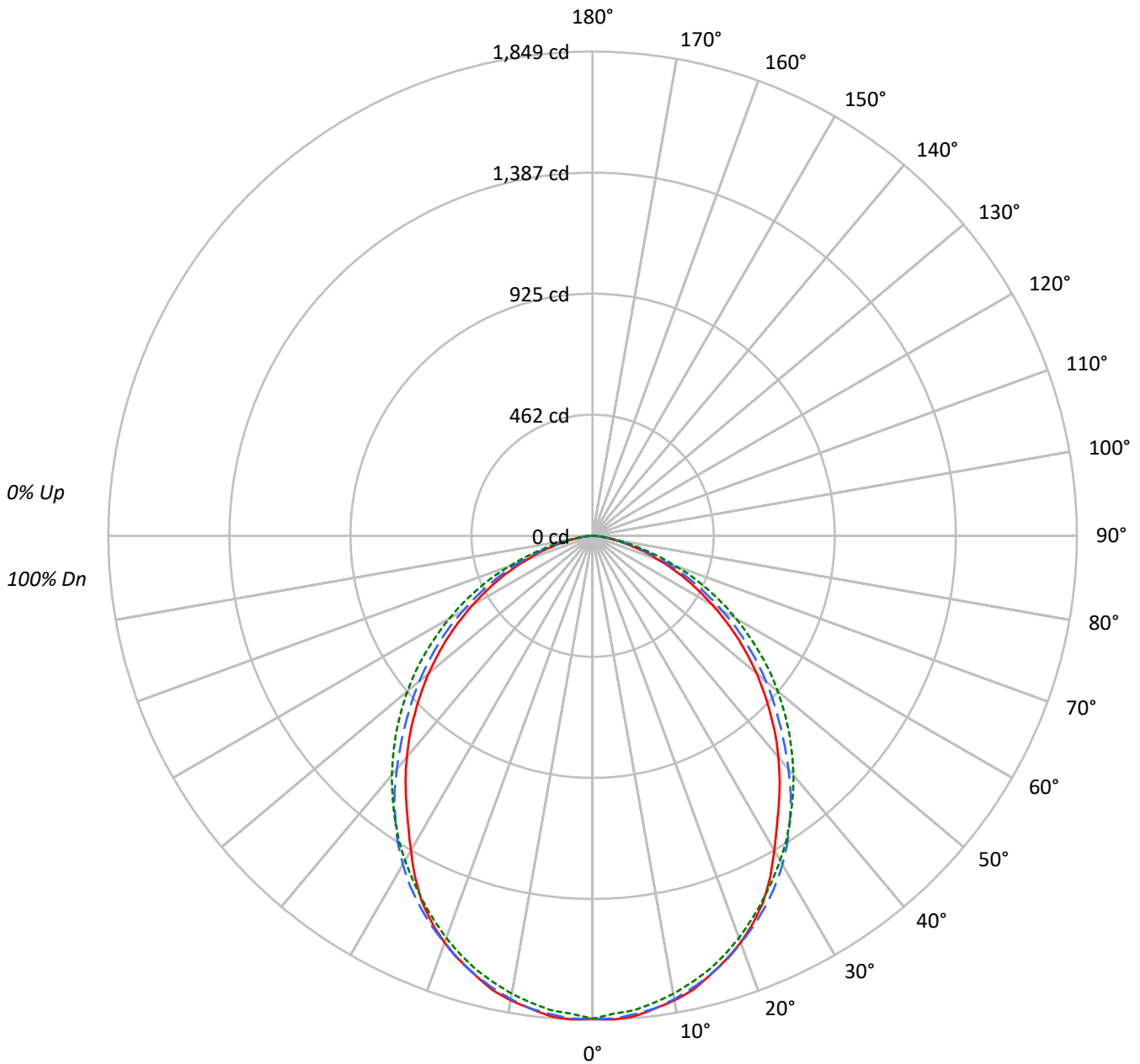
Lumens per Lamp: N/A
Luminaire Lumens: 4264.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4962	4962	4962
5°	4975	4955	4913
10°	4923	4909	4853
15°	4835	4835	4780
20°	4733	4739	4678
25°	4577	4634	4560
30°	4310	4504	4449
35°	4073	4317	4324
40°	3875	4084	4191
45°	3653	3836	4033
50°	3419	3615	3862
55°	3154	3363	3653
60°	2841	3069	3397
65°	2508	2729	3090
70°	2090	2324	2626
75°	1643	1856	2056
80°	1175	1306	1449
85°	766	766	722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.6	4.1
10°-20°	487.8	11.4
20°-30°	712.8	16.7
30°-40°	809.1	19.0
40°-50°	781.0	18.3
50°-60°	644.3	15.1
60°-70°	429.0	10.1
70°-80°	192.0	4.5
80°-90°	34.4	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°	1374.2	32.2
0°-40°	2183.3	51.2
0°-60°	3608.6	84.6
0°-90°	4264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4264.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1842	1841	1834	1824	1819	174
15°	1736	1740	1736	1728	1716	489
25°	1542	1554	1561	1549	1536	706
35°	1240	1257	1314	1321	1316	777
45°	960	976	1008	1054	1060	741
55°	672	684	717	757	779	600
65°	394	404	429	459	485	391
75°	158	166	178	187	198	173
85°	25	25	25	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1844.1	1844.1	1844.1	1844.1	1844.1
2.5°	1849.0	1849.7	1845.5	1834.2	1827.1
5°	1841.9	1841.2	1834.2	1824.2	1818.6
7.5°	1821.4	1822.8	1820.7	1806.5	1798.7
10°	1801.6	1802.3	1796.6	1785.3	1776.1
12.5°	1776.1	1775.4	1767.6	1761.9	1747.0
15°	1735.7	1739.9	1735.7	1727.9	1715.8
17.5°	1696.7	1696.7	1699.5	1686.1	1676.9
20°	1652.8	1654.9	1654.9	1644.3	1633.7
22.5°	1601.8	1608.2	1610.3	1598.9	1586.2
25°	1541.6	1553.6	1560.7	1549.4	1535.9
27.5°	1468.6	1487.0	1508.3	1499.8	1484.9
30°	1387.1	1414.0	1449.5	1442.4	1431.8
32.5°	1309.9	1336.8	1385.7	1382.9	1377.2
35°	1239.8	1256.8	1314.2	1321.2	1316.3
37.5°	1173.2	1188.8	1242.6	1258.9	1254.6
40°	1103.0	1120.0	1162.6	1191.6	1193.0
42.5°	1033.6	1049.9	1084.6	1126.4	1126.4
45°	959.9	976.2	1008.1	1054.2	1059.8
47.5°	887.7	904.7	935.8	981.9	991.1
50°	816.8	832.4	863.6	908.2	922.4
52.5°	743.2	760.2	790.6	831.7	852.3
55°	672.3	683.6	716.9	756.6	778.6
57.5°	598.6	609.3	646.8	680.8	703.5
60°	527.8	541.2	570.3	605.0	631.2
62.5°	459.8	473.9	498.7	529.2	559.0
65°	393.9	404.5	428.6	459.1	485.3
67.5°	330.1	339.3	363.4	384.7	412.3
70°	265.7	277.7	295.4	316.0	333.7
72.5°	213.9	218.9	233.8	248.7	267.1
75°	158.0	166.5	178.5	187.0	197.7
77.5°	113.4	118.3	125.4	132.5	142.4
80°	75.8	77.9	84.3	85.7	93.5
82.5°	46.0	47.5	48.9	49.6	52.4
85°	24.8	24.8	24.8	23.4	23.4
87.5°	14.2	14.2	12.0	9.9	7.1
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)