

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: P557268

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-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: P557268
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-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

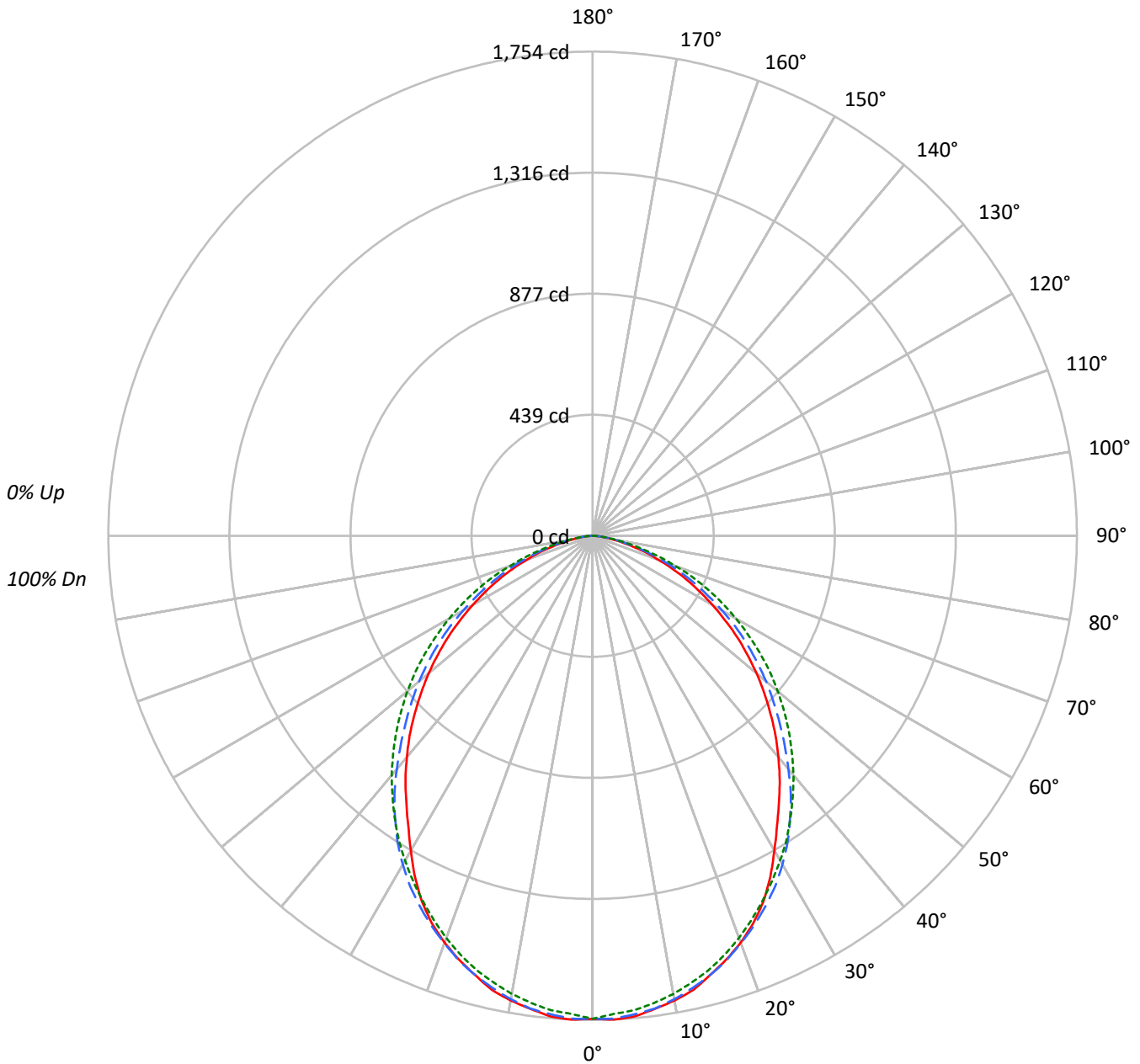
Lumens per Lamp: N/A
Luminaire Lumens: 4046.0 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4709	4709	4709
5°	4721	4701	4661
10°	4671	4658	4605
15°	4588	4588	4536
20°	4491	4497	4439
25°	4343	4397	4327
30°	4090	4274	4222
35°	3865	4096	4103
40°	3677	3875	3977
45°	3467	3640	3827
50°	3245	3430	3664
55°	2993	3192	3466
60°	2695	2912	3223
65°	2380	2590	2932
70°	1983	2205	2491
75°	1559	1761	1949
80°	1114	1240	1375
85°	726	726	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.7	4.1
10°-20°	462.8	11.4
20°-30°	676.3	16.7
30°-40°	767.7	19.0
40°-50°	741.1	18.3
50°-60°	611.4	15.1
60°-70°	407.1	10.1
70°-80°	182.2	4.5
80°-90°	32.6	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°	1303.9	32.2
0°-40°	2071.6	51.2
0°-60°	3424.1	84.6
0°-90°	4046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4046.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1750	1750	1750	1750	1750	
5°	1748	1747	1740	1731	1726	165
15°	1647	1651	1647	1640	1628	464
25°	1463	1474	1481	1470	1457	670
35°	1176	1192	1247	1254	1249	737
45°	911	926	957	1000	1006	703
55°	638	649	680	718	739	569
65°	374	384	407	436	460	371
75°	150	158	169	178	188	164
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1749.8	1749.8	1749.8	1749.8	1749.8
2.5°	1754.5	1755.2	1751.1	1740.4	1733.7
5°	1747.8	1747.1	1740.4	1731.0	1725.6
7.5°	1728.3	1729.6	1727.6	1714.2	1706.8
10°	1709.5	1710.1	1704.8	1694.0	1685.3
12.5°	1685.3	1684.6	1677.2	1671.8	1657.7
15°	1646.9	1651.0	1646.9	1639.5	1628.1
17.5°	1610.0	1610.0	1612.7	1599.9	1591.1
20°	1568.3	1570.3	1570.3	1560.2	1550.1
22.5°	1519.9	1525.9	1528.0	1517.2	1505.1
25°	1462.8	1474.2	1480.9	1470.1	1457.4
27.5°	1393.5	1411.0	1431.2	1423.1	1409.0
30°	1316.2	1341.8	1375.4	1368.6	1358.6
32.5°	1242.9	1268.5	1314.9	1312.2	1306.8
35°	1176.4	1192.5	1247.0	1253.7	1249.0
37.5°	1113.2	1128.0	1179.1	1194.5	1190.5
40°	1046.6	1062.8	1103.1	1130.7	1132.0
42.5°	980.8	996.2	1029.2	1068.8	1068.8
45°	910.9	926.3	956.6	1000.3	1005.6
47.5°	842.3	858.4	888.0	931.7	940.4
50°	775.1	789.9	819.4	861.8	875.2
52.5°	705.2	721.3	750.2	789.2	808.7
55°	637.9	648.7	680.3	717.9	738.8
57.5°	568.0	578.1	613.7	646.0	667.5
60°	500.8	513.6	541.1	574.1	598.9
62.5°	436.3	449.7	473.2	502.1	530.4
65°	373.8	383.8	406.7	435.6	460.5
67.5°	313.3	322.0	344.8	365.0	391.2
70°	252.1	263.5	280.3	299.8	316.6
72.5°	203.0	207.7	221.8	235.9	253.4
75°	149.9	158.0	169.4	177.5	187.5
77.5°	107.6	112.3	119.0	125.7	135.1
80°	71.9	73.9	80.0	81.3	88.7
82.5°	43.7	45.0	46.4	47.1	49.7
85°	23.5	23.5	23.5	22.2	22.2
87.5°	13.4	13.4	11.4	9.4	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)