

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: P557254

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-81-87-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: P557254
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-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

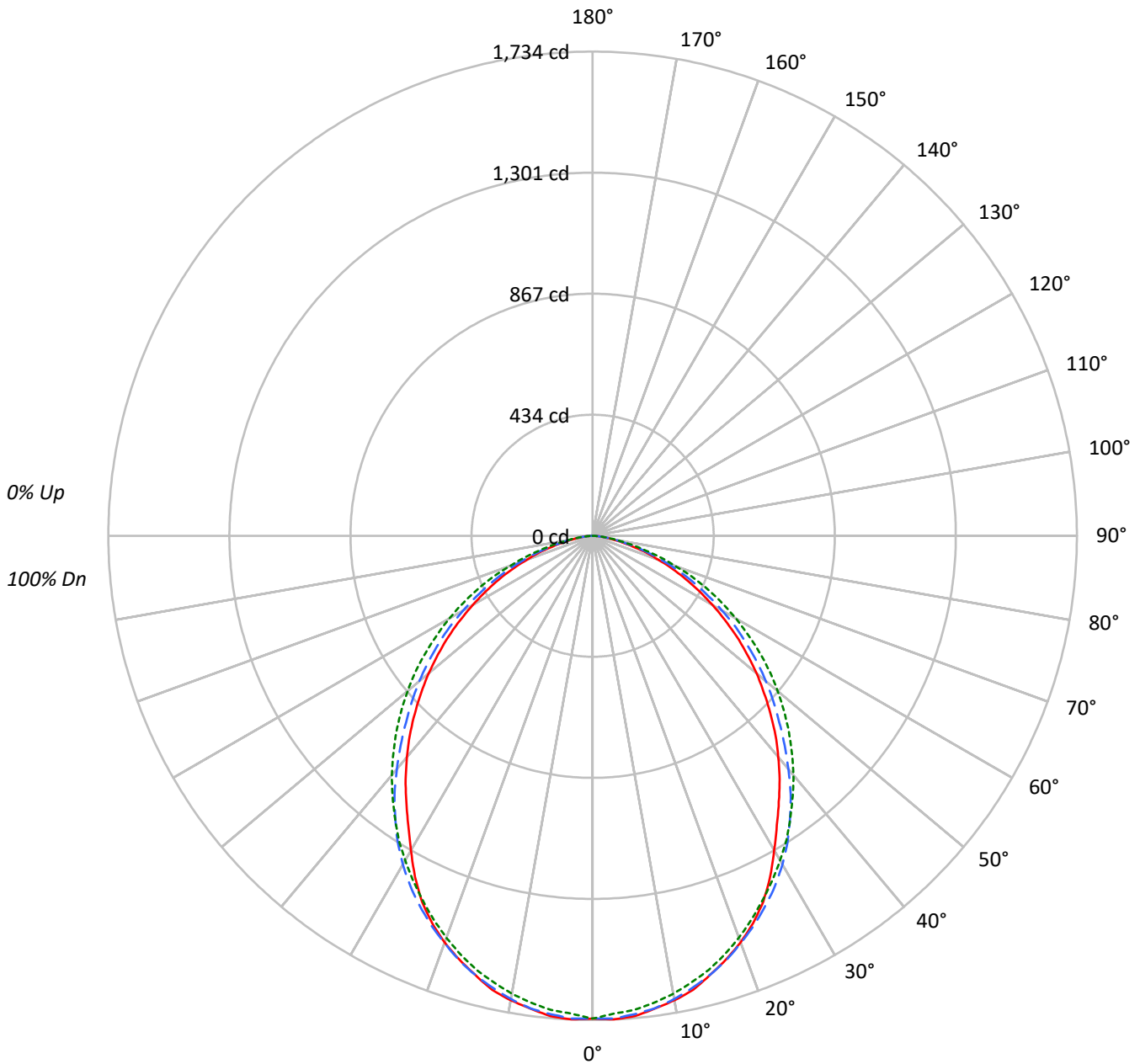
Lumens per Lamp: N/A
Luminaire Lumens: 3998.0 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4653	4653	4653
5°	4665	4645	4606
10°	4616	4603	4550
15°	4534	4534	4482
20°	4438	4444	4387
25°	4292	4345	4276
30°	4041	4223	4171
35°	3819	4048	4054
40°	3633	3829	3929
45°	3425	3597	3782
50°	3206	3390	3620
55°	2958	3154	3425
60°	2664	2878	3185
65°	2351	2559	2897
70°	1960	2179	2462
75°	1540	1740	1927
80°	1102	1224	1359
85°	716	716	676



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.8	4.1
10°-20°	457.3	11.4
20°-30°	668.3	16.7
30°-40°	758.6	19.0
40°-50°	732.3	18.3
50°-60°	604.1	15.1
60°-70°	402.3	10.1
70°-80°	180.0	4.5
80°-90°	32.2	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°	1288.4	32.2
0°-40°	2047.1	51.2
0°-60°	3383.5	84.6
0°-90°	3998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1729	1729	1729	1729	1729	
5°	1727	1726	1720	1710	1705	163
15°	1627	1631	1627	1620	1609	459
25°	1445	1457	1463	1453	1440	662
35°	1162	1178	1232	1239	1234	728
45°	900	915	945	988	994	694
55°	630	641	672	709	730	563
65°	369	379	402	430	455	366
75°	148	156	167	175	185	162
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°	1729.0	1729.0	1729.0	1729.0	1729.0
2.5°	1733.7	1734.3	1730.4	1719.7	1713.1
5°	1727.0	1726.4	1719.7	1710.4	1705.1
7.5°	1707.8	1709.1	1707.1	1693.8	1686.5
10°	1689.2	1689.8	1684.5	1673.9	1665.3
12.5°	1665.3	1664.6	1657.3	1652.0	1638.0
15°	1627.4	1631.4	1627.4	1620.1	1608.8
17.5°	1590.9	1590.9	1593.5	1580.9	1572.3
20°	1549.7	1551.7	1551.7	1541.7	1531.8
22.5°	1501.9	1507.8	1509.8	1499.2	1487.2
25°	1445.4	1456.7	1463.3	1452.7	1440.1
27.5°	1377.0	1394.3	1414.2	1406.2	1392.3
30°	1300.6	1325.8	1359.0	1352.4	1342.4
32.5°	1228.2	1253.4	1299.3	1296.6	1291.3
35°	1162.4	1178.4	1232.2	1238.8	1234.2
37.5°	1100.0	1114.6	1165.1	1180.4	1176.4
40°	1034.2	1050.2	1090.0	1117.3	1118.6
42.5°	969.1	984.4	1017.0	1056.2	1056.2
45°	900.1	915.3	945.2	988.4	993.7
47.5°	832.3	848.2	877.5	920.6	929.3
50°	765.9	780.5	809.7	851.6	864.8
52.5°	696.8	712.7	741.3	779.8	799.1
55°	630.4	641.0	672.2	709.4	730.0
57.5°	561.3	571.3	606.5	638.3	659.6
60°	494.9	507.5	534.7	567.3	591.8
62.5°	431.1	444.4	467.6	496.2	524.1
65°	369.3	379.3	401.9	430.4	455.0
67.5°	309.5	318.2	340.8	360.7	386.6
70°	249.1	260.4	277.0	296.3	312.9
72.5°	200.6	205.3	219.2	233.2	250.4
75°	148.1	156.1	167.4	175.4	185.3
77.5°	106.3	110.9	117.6	124.2	133.5
80°	71.1	73.1	79.0	80.4	87.7
82.5°	43.2	44.5	45.8	46.5	49.2
85°	23.2	23.2	23.2	21.9	21.9
87.5°	13.3	13.3	11.3	9.3	6.6
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)