

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: P557190

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-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: P557190
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-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

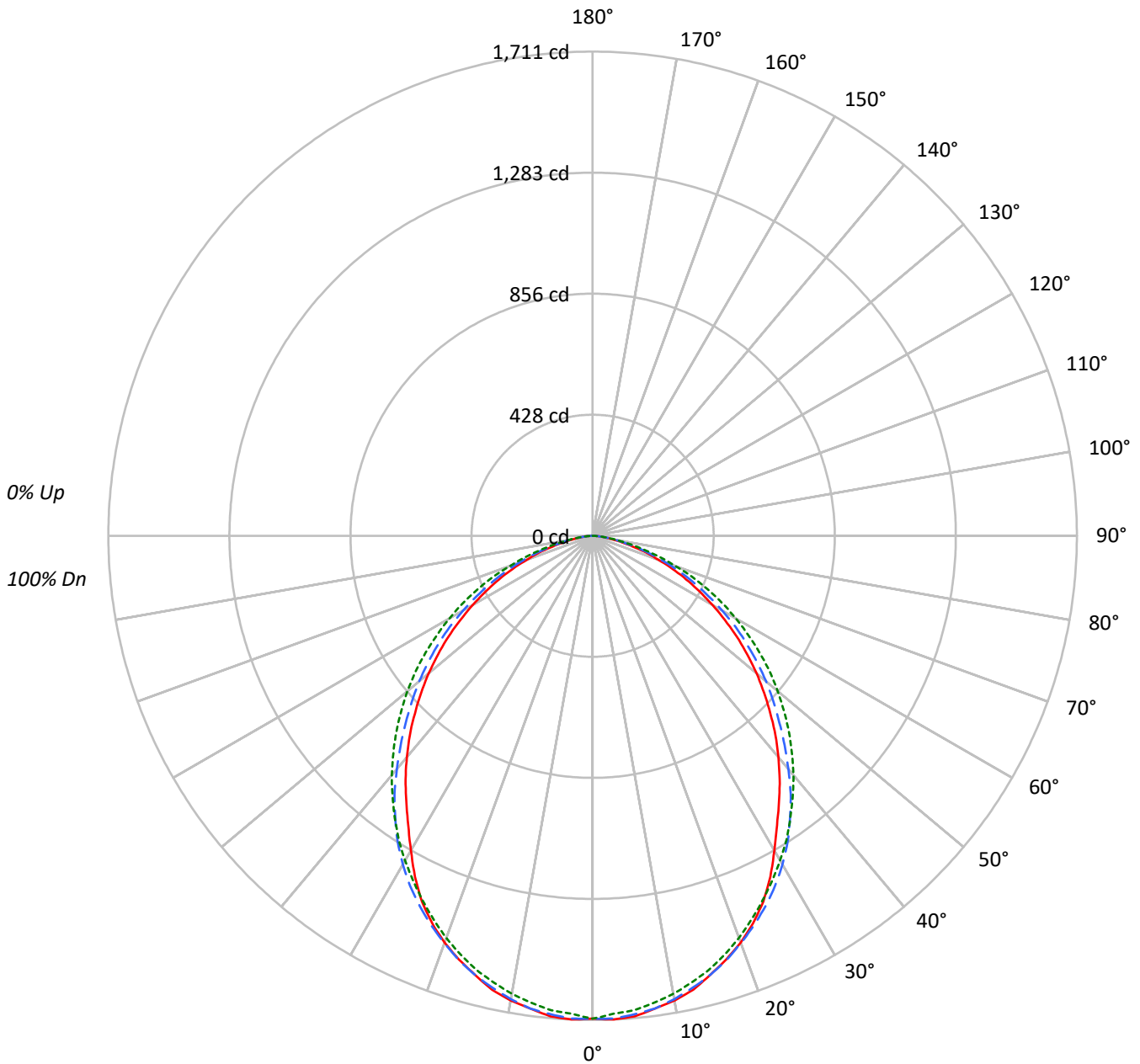
Lumens per Lamp: N/A
Luminaire Lumens: 3946.0 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4592	4592	4592
5°	4605	4585	4546
10°	4556	4543	4491
15°	4475	4475	4424
20°	4380	4386	4329
25°	4236	4288	4220
30°	3989	4168	4117
35°	3769	3995	4002
40°	3586	3779	3878
45°	3381	3550	3733
50°	3165	3346	3574
55°	2919	3113	3380
60°	2629	2841	3144
65°	2321	2525	2860
70°	1935	2151	2430
75°	1520	1718	1902
80°	1086	1209	1340
85°	707	707	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	4.1
10°-20°	451.4	11.4
20°-30°	659.6	16.7
30°-40°	748.7	19.0
40°-50°	722.8	18.3
50°-60°	596.3	15.1
60°-70°	397.1	10.1
70°-80°	177.7	4.5
80°-90°	31.8	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°	1271.7	32.2
0°-40°	2020.4	51.2
0°-60°	3339.5	84.6
0°-90°	3946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1705	1704	1697	1688	1683	161
15°	1606	1610	1606	1599	1588	453
25°	1427	1438	1444	1434	1421	653
35°	1147	1163	1216	1223	1218	719
45°	888	903	933	976	981	685
55°	622	633	664	700	720	555
65°	364	374	397	425	449	361
75°	146	154	165	173	183	160
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°	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1711.1	1711.8	1707.9	1697.4	1690.8
5°	1704.6	1703.9	1697.4	1688.2	1682.9
7.5°	1685.6	1686.9	1684.9	1671.8	1664.6
10°	1667.2	1667.9	1662.6	1652.1	1643.6
12.5°	1643.6	1642.9	1635.7	1630.5	1616.7
15°	1606.2	1610.2	1606.2	1599.0	1587.9
17.5°	1570.2	1570.2	1572.8	1560.3	1551.8
20°	1529.5	1531.5	1531.5	1521.7	1511.8
22.5°	1482.3	1488.2	1490.2	1479.7	1467.9
25°	1426.6	1437.7	1444.3	1433.8	1421.4
27.5°	1359.1	1376.1	1395.8	1387.9	1374.2
30°	1283.7	1308.6	1341.4	1334.8	1325.0
32.5°	1212.2	1237.1	1282.4	1279.7	1274.5
35°	1147.3	1163.0	1216.1	1222.7	1218.1
37.5°	1085.7	1100.1	1149.9	1165.0	1161.1
40°	1020.8	1036.5	1075.8	1102.7	1104.0
42.5°	956.5	971.6	1003.7	1042.4	1042.4
45°	888.3	903.4	932.9	975.5	980.8
47.5°	821.5	837.2	866.1	908.7	917.2
50°	755.9	770.3	799.2	840.5	853.6
52.5°	687.7	703.5	731.7	769.7	788.7
55°	622.2	632.7	663.5	700.2	720.5
57.5°	554.0	563.8	598.6	630.0	651.0
60°	488.4	500.9	527.8	559.9	584.1
62.5°	425.5	438.6	461.5	489.7	517.3
65°	364.5	374.4	396.6	424.8	449.1
67.5°	305.5	314.0	336.3	356.0	381.6
70°	245.9	257.0	273.4	292.4	308.8
72.5°	198.0	202.6	216.4	230.1	247.2
75°	146.2	154.1	165.2	173.1	182.9
77.5°	104.9	109.5	116.0	122.6	131.8
80°	70.1	72.1	78.0	79.3	86.5
82.5°	42.6	43.9	45.2	45.9	48.5
85°	22.9	22.9	22.9	21.6	21.6
87.5°	13.1	13.1	11.1	9.2	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)