

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: P488647

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1HI-40-120-EDD**

Issue Date: 3/11/2021

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: P488647
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-12-4-INS-A19156-LD4-1HI-40-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

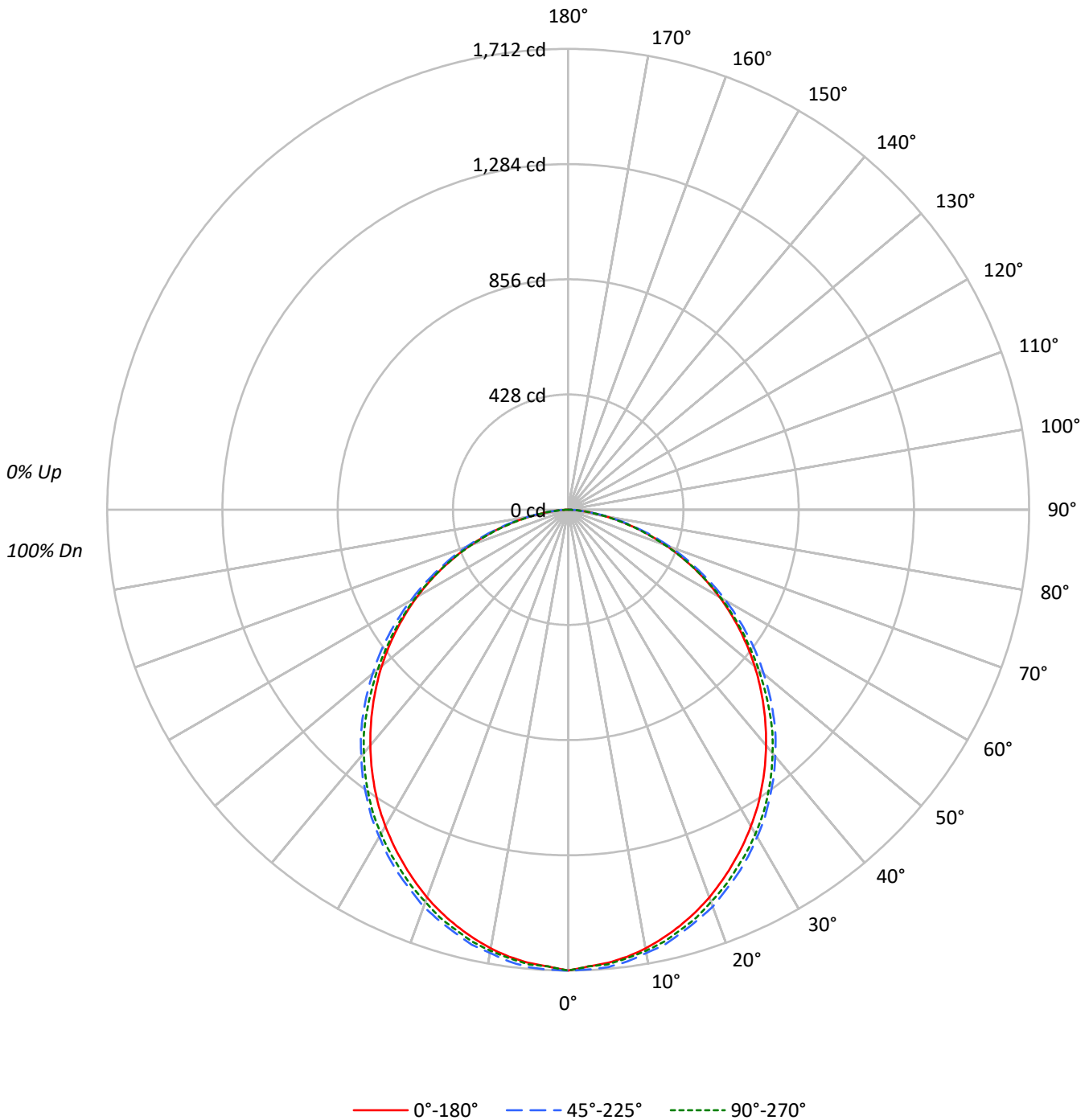
Lumens per Lamp: N/A
Luminaire Lumens: 4501.2 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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	
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4607	4607	4607
5°	4565	4608	4579
10°	4523	4569	4547
15°	4460	4532	4500
20°	4390	4494	4440
25°	4304	4429	4379
30°	4218	4360	4321
35°	4122	4286	4246
40°	4016	4200	4147
45°	3903	4099	4022
50°	3785	3968	3864
55°	3648	3819	3702
60°	3492	3638	3525
65°	3291	3417	3294
70°	3028	3151	2995
75°	2667	2787	2626
80°	2168	2261	2142
85°	1510	1609	1568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.2	3.6
10°-20°	456.9	10.2
20°-30°	681.5	15.1
30°-40°	807.6	17.9
40°-50°	817.1	18.2
50°-60°	713.7	15.9
60°-70°	521.5	11.6
70°-80°	277.5	6.2
80°-90°	64.1	1.4
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°	1299.7	28.9
0°-40°	2107.3	46.8
0°-60°	3638.1	80.8
0°-90°	4501.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4501.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1712	1712	1712	1712	1712	
5°	1690	1693	1706	1710	1695	160
15°	1601	1612	1627	1637	1615	451
25°	1450	1468	1492	1497	1475	668
35°	1255	1274	1305	1314	1292	785
45°	1026	1044	1077	1078	1057	791
55°	778	793	814	802	789	695
65°	517	528	537	526	517	512
75°	256	262	268	258	253	273
85°	49	50	52	53	51	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1712.1	1712.1	1712.1	1712.1	1712.1
2.5°	1698.7	1704.2	1710.0	1712.5	1698.5
5°	1689.8	1693.0	1705.7	1709.6	1695.2
7.5°	1675.2	1680.0	1692.3	1694.1	1680.2
10°	1655.2	1663.8	1672.0	1680.9	1663.9
12.5°	1629.7	1641.3	1655.2	1656.8	1644.0
15°	1601.0	1611.7	1626.8	1636.6	1615.4
17.5°	1568.9	1579.2	1598.8	1600.6	1587.8
20°	1533.0	1545.8	1569.4	1573.5	1550.5
22.5°	1492.3	1509.6	1529.3	1533.2	1516.2
25°	1449.7	1467.5	1491.8	1497.3	1474.7
27.5°	1405.1	1422.2	1449.5	1453.4	1434.4
30°	1357.3	1373.4	1403.3	1409.9	1390.5
32.5°	1308.8	1324.8	1358.0	1363.5	1344.6
35°	1254.9	1274.5	1304.7	1313.8	1292.5
37.5°	1200.0	1219.1	1253.3	1261.5	1238.7
40°	1143.1	1162.0	1195.7	1202.5	1180.5
42.5°	1084.9	1103.8	1139.9	1140.9	1122.7
45°	1025.5	1043.7	1077.2	1078.1	1056.9
47.5°	965.2	983.6	1013.6	1010.2	990.2
50°	904.2	921.7	947.9	941.1	923.1
52.5°	841.1	858.0	882.8	871.7	854.8
55°	777.6	793.3	814.0	802.2	789.0
57.5°	713.5	729.4	745.3	733.3	721.9
60°	648.9	662.9	675.9	663.8	655.0
62.5°	583.3	595.3	606.5	594.9	586.7
65°	516.9	527.5	536.7	526.0	517.3
67.5°	450.9	459.9	468.4	457.4	448.3
70°	384.9	392.6	400.5	389.0	380.7
72.5°	319.8	326.6	333.6	322.5	315.2
75°	256.5	262.4	268.1	258.3	252.6
77.5°	196.0	201.0	205.0	198.7	193.2
80°	139.9	143.6	145.9	143.4	138.2
82.5°	89.9	92.6	93.8	93.6	90.3
85°	48.9	49.8	52.1	52.6	50.8
87.5°	18.9	20.2	20.7	22.3	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)