

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: P488433

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2HI-50-120-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: P488433
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-12-2-INS-A19156-LD4-2HI-50-120-EDD
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

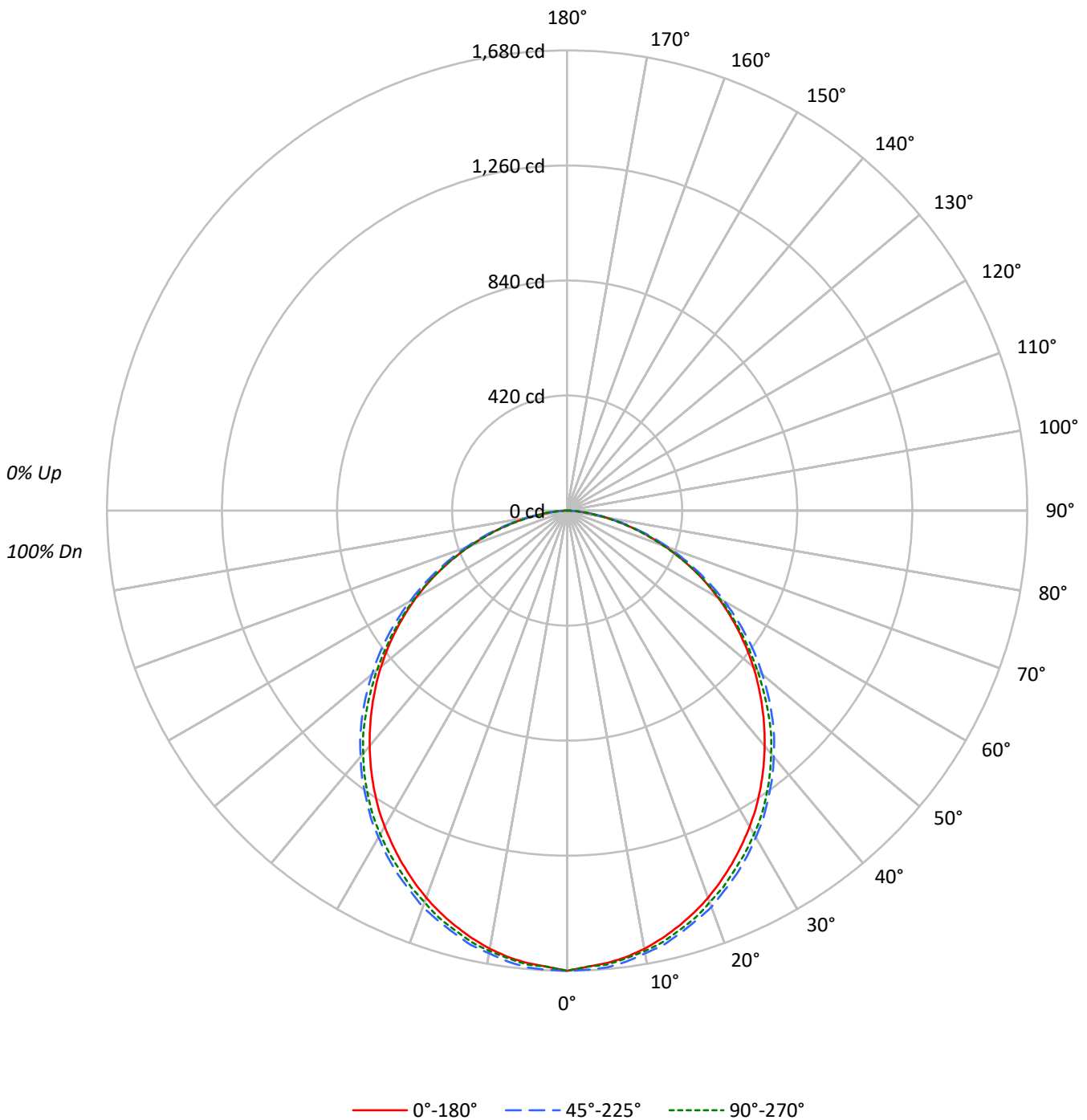
Lumens per Lamp: N/A
Luminaire Lumens: 4417.6 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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				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°	9043	9043	9043
5°	8960	9044	8988
10°	8878	8967	8924
15°	8754	8896	8834
20°	8617	8821	8715
25°	8449	8694	8595
30°	8278	8559	8481
35°	8092	8412	8334
40°	7881	8245	8140
45°	7661	8047	7895
50°	7430	7789	7586
55°	7160	7495	7265
60°	6856	7140	6919
65°	6460	6709	6465
70°	5945	6184	5879
75°	5234	5471	5155
80°	4255	4438	4206
85°	2964	3155	3081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.3	3.6
10°-20°	448.4	10.2
20°-30°	668.8	15.1
30°-40°	792.6	17.9
40°-50°	802.0	18.2
50°-60°	700.4	15.9
60°-70°	511.8	11.6
70°-80°	272.3	6.2
80°-90°	62.9	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°	1275.5	28.9
0°-40°	2068.1	46.8
0°-60°	3570.5	80.8
0°-90°	4417.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4417.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1680	1680	1680	1680	1680	
5°	1658	1662	1674	1678	1664	157
15°	1571	1582	1597	1606	1585	443
25°	1423	1440	1464	1470	1447	655
35°	1232	1251	1280	1289	1268	770
45°	1006	1024	1057	1058	1037	776
55°	763	778	799	787	774	682
65°	507	518	527	516	508	502
75°	252	258	263	254	248	268
85°	48	49	51	52	50	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1680.3	1680.3	1680.3	1680.3	1680.3
2.5°	1667.2	1672.6	1678.2	1680.6	1667.0
5°	1658.4	1661.6	1674.0	1677.8	1663.7
7.5°	1644.1	1648.8	1660.9	1662.6	1649.0
10°	1624.5	1632.9	1640.9	1649.7	1633.0
12.5°	1599.4	1610.8	1624.5	1626.0	1613.4
15°	1571.2	1581.7	1596.6	1606.2	1585.4
17.5°	1539.7	1549.9	1569.1	1570.9	1558.3
20°	1504.5	1517.1	1540.2	1544.3	1521.7
22.5°	1464.6	1481.6	1500.9	1504.7	1488.1
25°	1422.8	1440.3	1464.1	1469.5	1447.3
27.5°	1379.0	1395.8	1422.6	1426.4	1407.7
30°	1332.1	1347.8	1377.3	1383.7	1364.7
32.5°	1284.5	1300.2	1332.8	1338.2	1319.7
35°	1231.6	1250.9	1280.4	1289.4	1268.5
37.5°	1177.7	1196.4	1230.0	1238.1	1215.7
40°	1121.8	1140.4	1173.5	1180.1	1158.6
42.5°	1064.8	1083.3	1118.7	1119.7	1101.9
45°	1006.5	1024.3	1057.2	1058.1	1037.3
47.5°	947.3	965.3	994.7	991.4	971.8
50°	887.4	904.6	930.3	923.7	906.0
52.5°	825.4	842.1	866.4	855.6	838.9
55°	763.1	778.5	798.8	787.3	774.3
57.5°	700.3	715.9	731.4	719.7	708.5
60°	636.9	650.6	663.3	651.4	642.8
62.5°	572.5	584.2	595.2	583.9	575.8
65°	507.3	517.7	526.8	516.3	507.7
67.5°	442.6	451.3	459.7	448.9	439.9
70°	377.8	385.3	393.0	381.8	373.6
72.5°	313.9	320.5	327.4	316.5	309.3
75°	251.7	257.5	263.1	253.5	247.9
77.5°	192.4	197.3	201.2	195.0	189.6
80°	137.3	140.9	143.2	140.8	135.7
82.5°	88.2	90.9	92.1	91.9	88.6
85°	48.0	48.8	51.1	51.6	49.9
87.5°	18.6	19.8	20.3	21.9	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)