

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: P489578

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1HI-30-120-EDD-90**

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: P489578
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-24-4-INS-A19156-LD4-1HI-30-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

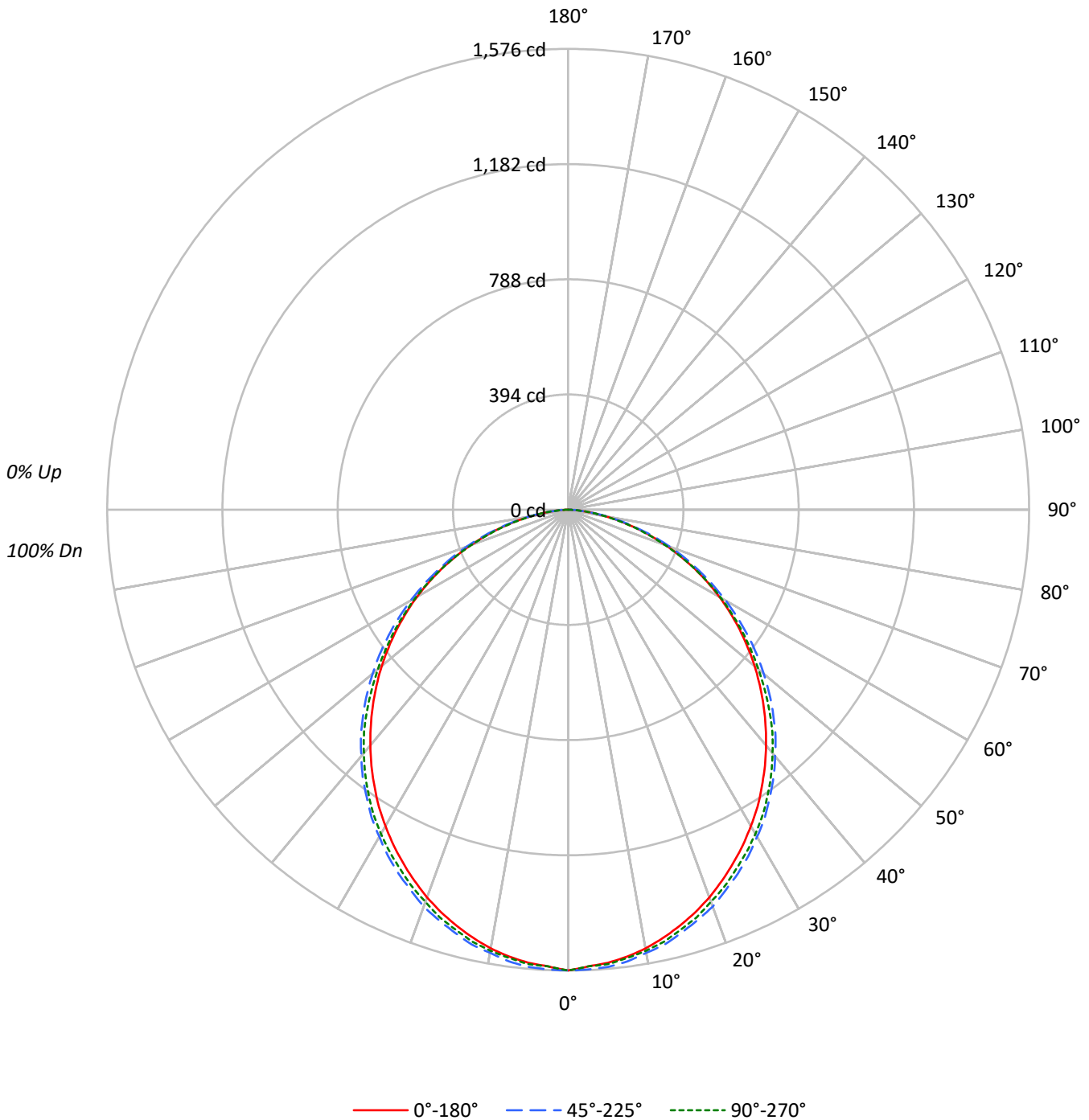
Lumens per Lamp: N/A
Luminaire Lumens: 4142.9 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P489578

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1HI-30-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489578

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1HI-30-120-EDD-90

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°	2120	2120	2120
5°	2101	2120	2107
10°	2081	2103	2092
15°	2053	2086	2071
20°	2020	2068	2043
25°	1981	2038	2015
30°	1941	2007	1988
35°	1897	1972	1954
40°	1848	1933	1909
45°	1796	1887	1851
50°	1742	1826	1778
55°	1679	1757	1704
60°	1607	1674	1622
65°	1515	1573	1516
70°	1394	1450	1378
75°	1227	1283	1209
80°	997	1041	986
85°	695	739	722



TEST NUMBER: P489578

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1HI-30-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	3.6
10°-20°	420.6	10.2
20°-30°	627.2	15.1
30°-40°	743.3	17.9
40°-50°	752.1	18.2
50°-60°	656.8	15.9
60°-70°	480.0	11.6
70°-80°	255.4	6.2
80°-90°	59.0	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°	1196.2	28.9
0°-40°	1939.5	46.8
0°-60°	3348.5	80.8
0°-90°	4142.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4142.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1576	1576	1576	1576	1576	
5°	1555	1558	1570	1574	1560	147
15°	1474	1483	1497	1506	1487	415
25°	1334	1351	1373	1378	1357	615
35°	1155	1173	1201	1209	1190	722
45°	944	961	992	992	973	728
55°	716	730	749	738	726	640
65°	476	486	494	484	476	471
75°	236	242	247	238	232	251
85°	45	46	48	48	47	57
90°	0	0	0	0	0	



TEST NUMBER: P489578

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1HI-30-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1575.8	1575.8	1575.8	1575.8	1575.8
2.5°	1563.5	1568.6	1573.8	1576.1	1563.3
5°	1555.3	1558.2	1569.9	1573.5	1560.2
7.5°	1541.8	1546.3	1557.6	1559.2	1546.4
10°	1523.4	1531.3	1538.9	1547.1	1531.5
12.5°	1500.0	1510.6	1523.4	1524.9	1513.1
15°	1473.5	1483.4	1497.3	1506.4	1486.8
17.5°	1444.0	1453.5	1471.6	1473.2	1461.4
20°	1411.0	1422.8	1444.5	1448.2	1427.1
22.5°	1373.5	1389.5	1407.5	1411.1	1395.5
25°	1334.3	1350.7	1373.0	1378.1	1357.3
27.5°	1293.3	1309.0	1334.1	1337.7	1320.2
30°	1249.3	1264.0	1291.6	1297.7	1279.8
32.5°	1204.6	1219.4	1249.9	1255.0	1237.6
35°	1155.0	1173.1	1200.8	1209.2	1189.7
37.5°	1104.4	1122.0	1153.5	1161.1	1140.1
40°	1052.1	1069.5	1100.5	1106.7	1086.6
42.5°	998.6	1016.0	1049.1	1050.1	1033.4
45°	943.9	960.6	991.5	992.3	972.8
47.5°	888.4	905.3	932.9	929.8	911.4
50°	832.2	848.3	872.5	866.2	849.6
52.5°	774.1	789.7	812.5	802.4	786.8
55°	715.7	730.1	749.2	738.3	726.2
57.5°	656.7	671.3	685.9	674.9	664.4
60°	597.3	610.1	622.1	610.9	602.9
62.5°	536.9	547.9	558.2	547.5	540.0
65°	475.8	485.5	494.0	484.2	476.1
67.5°	415.1	423.3	431.1	421.0	412.6
70°	354.3	361.4	368.6	358.1	350.4
72.5°	294.4	300.6	307.0	296.8	290.1
75°	236.1	241.5	246.8	237.7	232.5
77.5°	180.4	185.0	188.6	182.9	177.8
80°	128.7	132.2	134.3	132.0	127.2
82.5°	82.7	85.2	86.4	86.2	83.1
85°	45.0	45.8	47.9	48.4	46.8
87.5°	17.4	18.6	19.0	20.5	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)