

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: P489607

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1STD-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: P489607
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-LD4-1STD-40-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

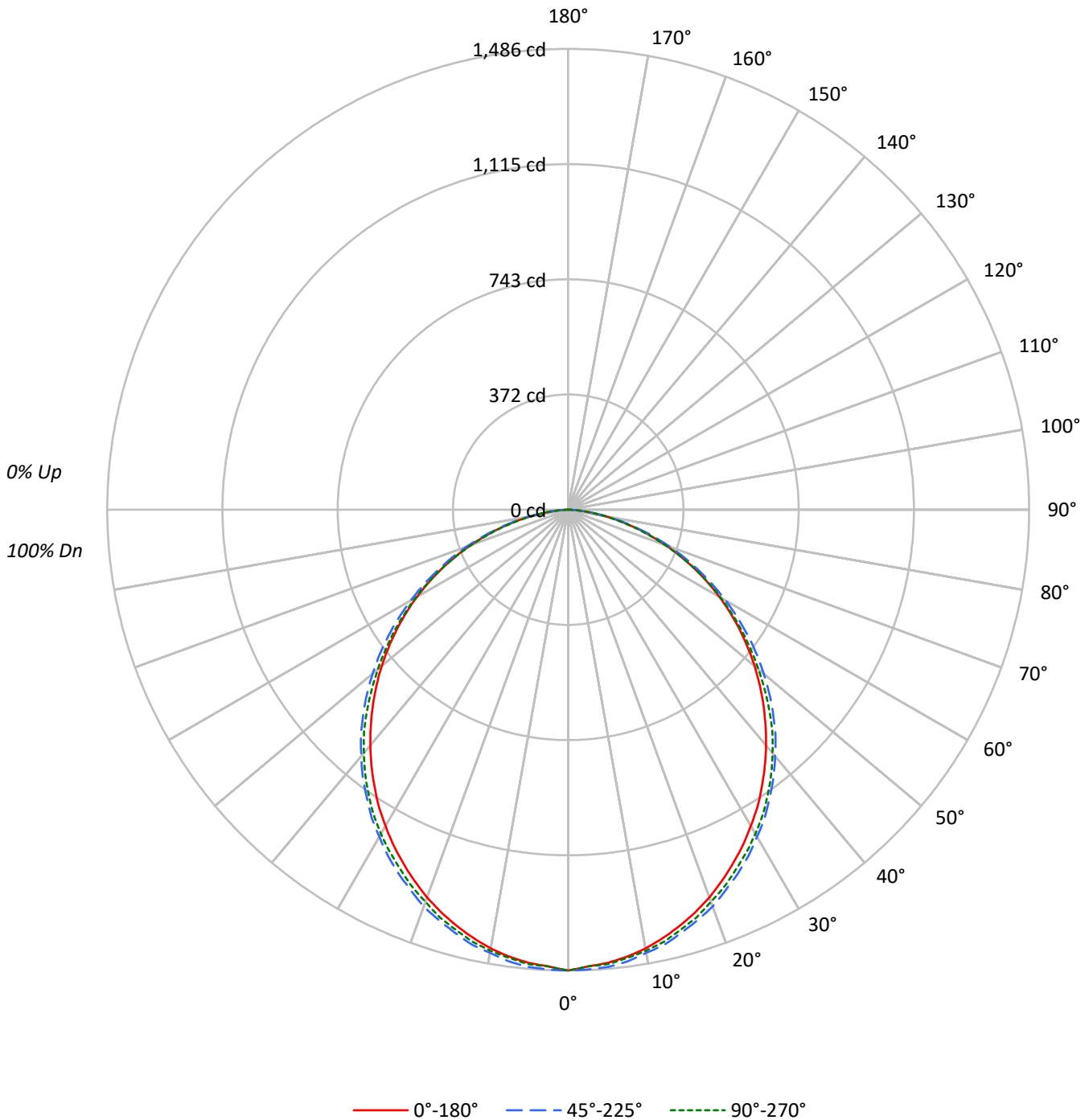
Lumens per Lamp: N/A
Luminaire Lumens: 3906.2 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	1999	1999	1999
5°	1981	1999	1987
10°	1962	1982	1973
15°	1935	1967	1953
20°	1905	1950	1927
25°	1868	1922	1900
30°	1830	1892	1875
35°	1789	1860	1842
40°	1742	1822	1799
45°	1694	1779	1745
50°	1643	1722	1677
55°	1583	1657	1606
60°	1516	1578	1530
65°	1428	1483	1429
70°	1314	1367	1299
75°	1157	1210	1140
80°	941	981	930
85°	655	698	681



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.9	3.6
10°-20°	396.5	10.2
20°-30°	591.4	15.1
30°-40°	700.8	17.9
40°-50°	709.1	18.2
50°-60°	619.3	15.9
60°-70°	452.6	11.6
70°-80°	240.8	6.2
80°-90°	55.7	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°	1127.9	28.9
0°-40°	1828.7	46.8
0°-60°	3157.2	80.8
0°-90°	3906.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3906.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1466	1469	1480	1484	1471	139
15°	1389	1399	1412	1420	1402	392
25°	1258	1274	1295	1299	1280	580
35°	1089	1106	1132	1140	1122	681
45°	890	906	935	936	917	687
55°	675	688	706	696	685	603
65°	449	458	466	456	449	444
75°	223	228	233	224	219	237
85°	42	43	45	46	44	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1485.8	1485.8	1485.8	1485.8	1485.8
2.5°	1474.2	1479.0	1483.9	1486.1	1474.0
5°	1466.4	1469.2	1480.2	1483.6	1471.1
7.5°	1453.7	1457.9	1468.6	1470.1	1458.1
10°	1436.4	1443.8	1450.9	1458.7	1444.0
12.5°	1414.3	1424.3	1436.4	1437.8	1426.6
15°	1389.3	1398.6	1411.8	1420.3	1401.9
17.5°	1361.5	1370.5	1387.5	1389.0	1377.9
20°	1330.4	1341.5	1361.9	1365.5	1345.5
22.5°	1295.1	1310.1	1327.1	1330.5	1315.8
25°	1258.1	1273.5	1294.6	1299.4	1279.7
27.5°	1219.4	1234.2	1257.9	1261.3	1244.8
30°	1177.9	1191.8	1217.8	1223.5	1206.7
32.5°	1135.8	1149.7	1178.5	1183.3	1166.9
35°	1089.0	1106.1	1132.2	1140.1	1121.7
37.5°	1041.3	1057.9	1087.6	1094.8	1074.9
40°	992.0	1008.4	1037.6	1043.5	1024.5
42.5°	941.5	957.9	989.2	990.1	974.3
45°	890.0	905.7	934.8	935.6	917.2
47.5°	837.6	853.6	879.6	876.6	859.3
50°	784.7	799.9	822.6	816.7	801.1
52.5°	729.9	744.6	766.1	756.5	741.8
55°	674.8	688.4	706.4	696.1	684.7
57.5°	619.2	633.0	646.8	636.4	626.5
60°	563.2	575.2	586.5	576.0	568.4
62.5°	506.2	516.6	526.3	516.3	509.1
65°	448.6	457.7	465.8	456.5	448.9
67.5°	391.3	399.1	406.5	396.9	389.0
70°	334.1	340.7	347.5	337.6	330.3
72.5°	277.6	283.4	289.5	279.9	273.5
75°	222.6	227.7	232.7	224.2	219.2
77.5°	170.1	174.5	177.9	172.4	167.6
80°	121.4	124.6	126.6	124.5	120.0
82.5°	78.0	80.3	81.4	81.3	78.3
85°	42.4	43.2	45.2	45.7	44.1
87.5°	16.4	17.5	18.0	19.4	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)