

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: A1706701A001(120V)

Luminaire Tested: **24RTC4835**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: A1706701A001(120V)
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA A1706701A001
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24RTC4835
Description:
Light Source: -
Ballast/Driver: -

Summary

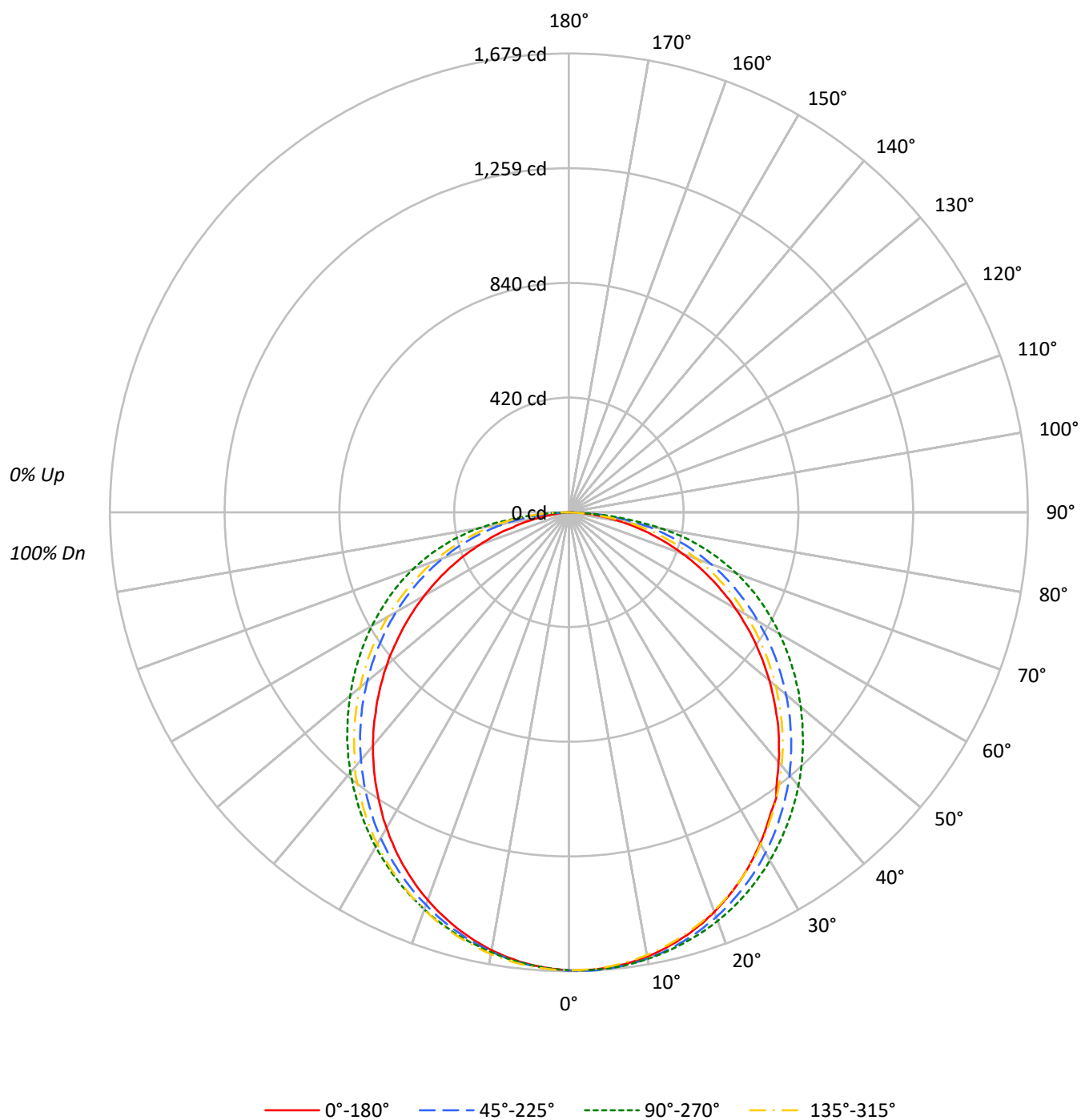
Lumens per Lamp: 4920.817 (1 lamp)
Luminaire Lumens: 4920.8 lumens
Efficiency: 100.0%
Efficacy: 128.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 38.164
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
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	99	95	105	101	97	93		97	93	90		93	90	87		89	87	85
2	98	89	82	76	95	88	81	75		84	78	74		81	76	72		78	74	70
3	89	78	70	63	87	77	69	63		74	67	61		71	65	60		68	63	59
4	82	69	60	53	79	68	59	53		65	58	52		63	57	51		61	55	51
5	75	62	53	46	73	61	52	45		58	51	45		56	50	44		55	49	44
6	69	56	46	40	67	55	46	40		53	45	39		51	44	39		49	43	39
7	64	50	41	35	62	49	41	35		48	40	35		46	40	34		45	39	34
8	60	46	37	31	58	45	37	31		44	36	31		43	36	31		41	35	31
9	56	42	34	28	54	41	33	28		40	33	28		39	33	28		38	32	28
10	52	39	31	25	51	38	31	25		37	30	25		36	30	25		35	29	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	2567	2567	2567	2567
5°	2571	2575	2552	2555
10°	2567	2581	2531	2543
15°	2555	2587	2499	2532
20°	2537	2593	2461	2521
25°	2509	2598	2415	2509
30°	2475	2601	2358	2500
35°	2444	2605	2297	2492
40°	2385	2612	2229	2487
45°	2340	2622	2155	2483
50°	2281	2641	2069	2490
55°	2222	2669	1979	2510
60°	2151	2725	1872	2551
65°	2076	2809	1740	2614
70°	1983	2918	1566	2714
75°	1859	3044	1236	2841
80°	1679	3052	933	2942
85°	1408	2483	402	2585



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	158.4	3.2	3.2
10°-20°	452.7	9.2	9.2
20°-30°	683.9	13.9	13.9
30°-40°	822.7	16.7	16.7
40°-50°	855.4	17.4	17.4
50°-60°	786.4	16.0	16.0
60°-70°	632.0	12.8	12.8
70°-80°	407.2	8.3	8.3
80°-90°	122.0	2.5	2.5
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	1295.0	26.3	26.3
0°-40°	2117.7	43.0	43.0
0°-60°	3759.5	76.4	76.4
0°-90°	4920.8	100.0	100.0
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	4920.8	100.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1676	1676	1676	1676	1676	
5°	1672	1675	1660	1662	1672	159
15°	1611	1631	1576	1597	1611	455
25°	1484	1537	1429	1485	1484	684
35°	1307	1393	1228	1333	1307	815
45°	1080	1211	995	1146	1080	832
55°	832	1000	741	940	832	744
65°	573	775	480	721	573	567
75°	314	514	209	480	314	332
85°	80	141	23	147	80	94
90°	9	0	0	0	9	



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1676.1	1676.1	1676.1	1676.1	1676.1	1676.1	1676.1	1676.1	1676.1	1676.1	1676.1
1°	1676.1	1678.4	1678.5	1676.6	1676.0	1675.2	1673.6	1676.1	1675.8	1673.5	1674.9
2°	1676.3	1678.8	1678.9	1677.0	1675.3	1674.3	1671.2	1673.3	1673.2	1671.6	1673.4
3°	1675.5	1678.4	1678.5	1676.8	1674.2	1672.6	1668.1	1670.6	1670.5	1668.7	1671.5
4°	1674.1	1677.4	1677.6	1676.0	1672.6	1670.1	1664.6	1666.9	1667.0	1665.5	1668.9
5°	1672.1	1675.8	1676.1	1674.6	1670.2	1667.0	1659.8	1662.4	1663.1	1661.6	1665.4
6°	1669.3	1672.8	1673.8	1672.8	1667.5	1662.5	1654.9	1657.3	1658.5	1657.4	1661.8
7°	1665.8	1669.9	1671.1	1670.6	1663.9	1658.2	1648.6	1651.8	1653.1	1652.4	1657.3
8°	1661.4	1665.9	1668.2	1667.1	1660.1	1652.4	1642.5	1644.7	1647.6	1647.0	1652.3
9°	1656.5	1661.3	1663.9	1663.8	1654.9	1647.0	1634.6	1638.2	1641.2	1641.2	1646.7
10°	1650.7	1655.6	1659.8	1659.5	1650.0	1639.8	1627.2	1630.0	1634.4	1634.8	1640.8
11°	1644.3	1650.4	1654.2	1655.4	1643.4	1633.0	1617.6	1622.3	1626.3	1628.2	1634.1
12°	1637.4	1643.1	1649.2	1649.6	1637.1	1624.3	1608.5	1612.6	1619.1	1620.1	1626.9
13°	1628.7	1636.6	1642.3	1644.1	1630.0	1616.6	1598.3	1603.8	1610.3	1613.5	1619.2
14°	1620.9	1628.1	1635.5	1637.8	1622.3	1606.6	1587.5	1592.6	1602.4	1604.8	1611.0
15°	1611.1	1620.4	1628.4	1631.3	1614.3	1596.6	1576.2	1581.6	1592.3	1597.1	1601.9
16°	1602.4	1610.4	1620.7	1624.2	1605.5	1586.0	1564.1	1570.5	1583.4	1587.2	1593.9
17°	1591.1	1601.4	1612.3	1616.5	1596.4	1574.8	1551.2	1558.4	1572.5	1578.3	1583.1
18°	1580.9	1590.1	1603.5	1608.5	1586.7	1562.9	1538.2	1545.7	1562.6	1567.6	1574.1
19°	1568.0	1579.1	1594.4	1600.0	1576.6	1550.3	1524.2	1532.8	1550.4	1558.1	1562.3
20°	1556.7	1567.8	1584.3	1590.9	1565.6	1537.5	1509.9	1519.1	1538.6	1546.4	1552.2
21°	1542.6	1555.2	1573.8	1581.1	1554.7	1523.7	1494.8	1505.2	1526.4	1534.8	1539.6
22°	1529.0	1542.7	1562.9	1571.1	1542.9	1509.9	1479.0	1490.7	1513.9	1523.1	1527.4
23°	1514.8	1529.1	1551.3	1560.2	1530.5	1495.2	1462.9	1475.5	1500.7	1510.8	1514.5
24°	1500.0	1515.2	1539.2	1549.0	1517.9	1480.0	1446.2	1460.0	1487.1	1498.1	1501.7
25°	1484.4	1500.8	1526.9	1537.4	1504.6	1464.1	1428.8	1443.6	1473.0	1484.8	1488.3
26°	1468.7	1486.0	1513.5	1525.0	1490.6	1447.9	1411.0	1427.3	1458.5	1471.4	1474.2
27°	1452.0	1470.5	1500.2	1512.7	1476.4	1431.1	1392.8	1410.4	1443.6	1457.4	1459.9
28°	1435.1	1454.8	1486.2	1498.1	1460.2	1414.0	1372.2	1393.0	1428.3	1443.1	1444.8
29°	1417.4	1438.2	1470.4	1485.7	1446.2	1396.5	1354.6	1375.0	1412.5	1428.5	1429.5
30°	1399.4	1421.3	1456.7	1470.5	1429.1	1376.6	1333.1	1356.7	1396.5	1413.4	1414.1
31°	1381.0	1404.0	1441.3	1455.7	1414.5	1358.3	1314.8	1337.8	1380.2	1398.3	1398.0
32°	1362.0	1386.4	1423.7	1440.9	1396.5	1340.8	1292.3	1318.8	1363.1	1382.3	1381.4
33°	1342.4	1367.8	1407.5	1425.3	1379.4	1319.5	1271.4	1297.4	1346.0	1366.1	1364.7
34°	1322.5	1349.2	1390.7	1409.3	1362.0	1299.6	1250.1	1277.4	1328.5	1349.4	1347.3
35°	1307.2	1328.3	1373.6	1393.4	1344.2	1279.5	1228.4	1257.1	1310.5	1332.7	1330.0
36°	1290.6	1310.5	1355.8	1376.6	1325.6	1258.9	1206.2	1236.4	1292.5	1315.5	1312.0
37°	1261.1	1288.7	1337.8	1359.6	1307.2	1238.1	1183.9	1215.5	1273.8	1296.5	1293.7
38°	1237.0	1270.2	1319.5	1342.3	1288.3	1216.5	1161.1	1194.3	1253.2	1280.3	1275.3
39°	1217.0	1250.2	1300.7	1324.4	1268.9	1195.0	1138.3	1172.9	1235.8	1260.6	1256.5
40°	1192.9	1232.4	1281.6	1306.3	1249.2	1173.3	1115.0	1151.2	1214.6	1244.1	1235.5
41°	1172.5	1205.3	1262.4	1287.8	1229.1	1150.8	1091.4	1129.0	1196.7	1223.6	1217.8
42°	1147.7	1185.4	1242.4	1268.9	1208.8	1128.4	1067.8	1106.7	1175.1	1206.4	1196.2
43°	1126.9	1161.5	1222.6	1249.8	1188.4	1105.6	1043.7	1084.3	1156.8	1185.2	1178.2
44°	1103.4	1139.2	1202.2	1230.4	1167.6	1082.5	1017.4	1061.4	1134.4	1167.7	1156.0



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	1080.2	1116.6	1181.5	1210.6	1146.5	1059.3	995.1	1038.5	1113.6	1146.2	1137.3
46°	1054.2	1093.8	1160.7	1190.6	1123.2	1035.7	968.6	1015.2	1092.8	1126.3	1114.8
47°	1030.3	1071.1	1139.5	1168.6	1103.6	1009.8	945.9	991.9	1071.8	1106.2	1093.7
48°	1005.9	1047.7	1116.2	1149.9	1079.8	988.3	918.6	968.6	1050.5	1085.8	1072.8
49°	981.5	1023.9	1096.5	1127.4	1059.7	961.8	895.9	942.7	1028.9	1065.3	1051.3
50°	957.1	1000.4	1072.7	1108.5	1035.8	939.7	868.5	921.1	1007.2	1044.8	1029.8
51°	932.2	976.5	1052.8	1085.6	1015.4	913.1	845.6	894.8	985.4	1023.8	1008.0
52°	907.4	952.7	1028.5	1066.5	990.8	890.8	817.8	873.0	963.6	1003.1	986.1
53°	882.4	928.4	1008.1	1043.1	968.1	863.8	792.2	846.8	941.7	982.0	964.3
54°	857.4	903.9	983.6	1023.4	945.2	841.4	766.6	824.8	919.5	961.1	942.2
55°	832.2	879.5	961.1	999.6	922.4	814.2	741.0	798.1	897.4	939.8	919.8
56°	806.8	855.1	938.4	978.0	899.4	789.2	715.1	773.6	874.9	918.4	897.6
57°	781.2	828.2	915.3	956.3	876.1	764.2	689.2	749.3	852.7	897.1	875.1
58°	753.6	805.7	892.4	934.1	853.0	739.2	663.3	724.8	830.4	875.8	852.7
59°	730.1	778.6	869.2	912.0	829.5	713.9	637.3	700.1	805.7	854.2	830.1
60°	702.2	753.6	846.0	889.6	805.9	688.8	611.2	675.5	783.1	832.8	807.4
61°	678.8	731.0	822.6	867.2	782.3	663.4	585.1	651.0	760.3	809.0	784.8
62°	650.7	703.6	799.2	844.7	758.7	638.3	559.0	626.3	737.7	787.4	761.9
63°	624.9	678.8	775.5	821.6	734.7	613.0	532.8	601.7	715.0	765.5	737.2
64°	598.9	653.5	751.8	798.6	710.7	587.6	506.5	577.1	692.0	743.4	714.1
65°	572.9	628.4	727.8	775.0	686.2	562.1	480.2	552.2	669.0	721.3	691.2
66°	546.8	603.4	703.4	751.2	661.6	537.0	454.0	527.7	645.8	698.8	668.0
67°	521.0	578.2	679.3	727.1	637.0	511.6	427.9	503.0	622.4	676.0	644.9
68°	495.0	553.1	654.3	702.5	611.8	486.2	401.9	478.3	599.0	653.2	621.6
69°	468.9	527.8	629.4	677.2	583.8	460.7	373.3	453.6	575.1	629.8	598.1
70°	442.9	502.7	603.9	651.5	560.3	435.3	349.6	429.1	551.2	606.1	574.3
71°	417.0	477.3	575.8	625.3	531.9	409.9	321.7	404.3	527.0	581.8	550.4
72°	391.1	452.0	552.1	595.9	507.6	382.2	298.4	379.5	502.2	557.2	526.4
73°	365.2	426.8	523.1	571.2	478.1	359.2	270.5	355.2	477.4	532.1	502.0
74°	339.4	401.5	498.7	540.5	453.3	331.6	247.8	328.3	451.9	506.4	477.4
75°	314.1	376.0	468.8	514.4	423.1	308.6	208.9	306.2	426.4	480.1	452.2
76°	288.7	348.4	443.6	482.3	397.6	281.3	197.9	279.8	400.4	453.1	427.0
77°	263.5	325.4	413.0	455.3	366.3	258.6	172.1	257.9	371.4	425.9	401.5
78°	238.7	298.1	386.9	421.3	337.2	232.0	151.3	232.0	347.1	395.5	375.5
79°	214.4	275.5	355.1	386.0	306.3	210.1	127.0	207.6	317.6	369.3	349.2
80°	190.4	248.4	324.5	346.0	270.1	184.2	105.8	184.7	292.0	333.6	322.5
81°	165.6	224.5	291.2	306.9	235.4	161.6	86.7	163.3	257.7	298.6	293.9
82°	143.3	201.1	252.9	263.6	196.5	137.0	67.5	141.6	223.4	262.9	266.2
83°	120.1	175.9	208.3	223.7	161.5	113.5	51.1	117.7	185.9	208.2	233.5
84°	99.7	152.6	177.7	181.6	124.4	85.3	35.4	92.4	151.0	184.7	197.4
85°	80.1	128.5	142.4	141.3	90.4	59.4	22.9	65.0	116.2	147.1	163.0
86°	62.1	99.8	107.1	103.2	59.0	34.8	13.2	40.8	83.1	108.8	128.7
87°	44.8	72.7	73.9	65.8	28.0	15.4	6.0	20.4	53.3	77.5	95.0
88°	29.9	53.7	42.4	25.4	2.7	0.9	0.2	4.1	20.6	40.8	64.7
89°	18.2	25.3	10.4	1.6	0.0	0.0	0.0	0.0	1.3	7.7	34.2



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	9.4	7.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	1676.1	1676.1
1°	1675.8	1676.1
2°	1674.9	1676.3
3°	1673.1	1675.5
4°	1670.9	1674.1
5°	1667.8	1672.1
6°	1664.1	1669.3
7°	1659.9	1665.8
8°	1654.6	1661.4
9°	1648.8	1656.5
10°	1642.5	1650.7
11°	1635.5	1644.3
12°	1627.3	1637.4
13°	1619.6	1628.7
14°	1610.0	1620.9
15°	1601.1	1611.1
16°	1590.1	1602.4
17°	1580.5	1591.1
18°	1568.0	1580.9
19°	1557.1	1568.0
20°	1543.4	1556.7
21°	1530.5	1542.6
22°	1516.9	1529.0
23°	1502.7	1514.8
24°	1488.4	1500.0
25°	1473.0	1484.4
26°	1457.3	1468.7
27°	1441.6	1452.0
28°	1424.8	1435.1
29°	1407.7	1417.4
30°	1390.5	1399.4
31°	1372.6	1381.0
32°	1354.4	1362.0
33°	1335.4	1342.4
34°	1316.2	1322.5
35°	1296.8	1307.2
36°	1277.0	1290.6
37°	1255.0	1261.1
38°	1238.7	1237.0
39°	1223.0	1217.0
40°	1197.0	1192.9
41°	1170.7	1172.5
42°	1150.7	1147.7
43°	1126.7	1126.9
44°	1104.3	1103.4



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CANDELA DISTRIBUTION (continued):

	330°	360°
45°	1081.6	1080.2
46°	1058.9	1054.2
47°	1035.9	1030.3
48°	1012.7	1005.9
49°	989.3	981.5
50°	965.9	957.1
51°	942.1	932.2
52°	918.2	907.4
53°	894.5	882.4
54°	870.4	857.4
55°	846.4	832.2
56°	822.0	806.8
57°	797.6	781.2
58°	773.2	753.6
59°	748.9	730.1
60°	721.9	702.2
61°	699.6	678.8
62°	672.8	650.7
63°	648.1	624.9
64°	623.5	598.9
65°	598.9	572.9
66°	574.1	546.8
67°	549.5	521.0
68°	524.9	495.0
69°	500.2	468.9
70°	475.4	442.9
71°	450.9	417.0
72°	426.3	391.1
73°	401.7	365.2
74°	377.2	339.4
75°	352.6	314.1
76°	328.3	288.7
77°	304.2	263.5
78°	277.9	238.7
79°	256.2	214.4
80°	230.4	190.4
81°	207.9	165.6
82°	186.1	143.3
83°	163.0	120.1
84°	141.7	99.7
85°	120.3	80.1
86°	97.7	62.1
87°	75.7	44.8
88°	50.5	29.9
89°	28.8	18.2



TEST NUMBER: A1706701A001(120V)

CATALOG NUMBER: 24RTC4835

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	13.4	9.4

(END OF REPORT)