

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: A1707061C001(120V)

Luminaire Tested: **22RTC4840**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: A1707061C001(120V)
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA A1707061C001
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22RTC4840
Description:
Light Source: -
Ballast/Driver: -

Summary

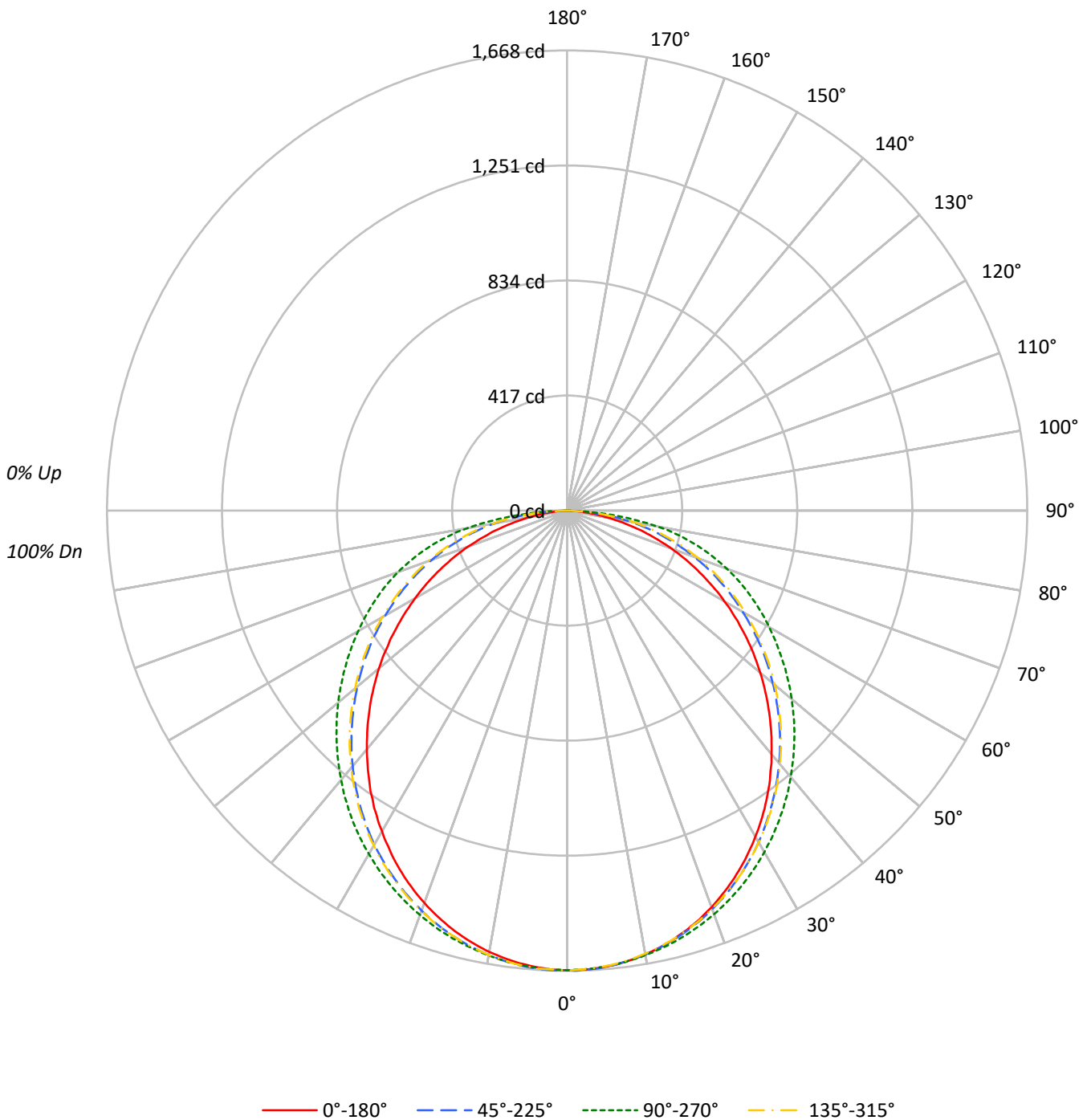
Lumens per Lamp: 4889.596 (1 lamp)
Luminaire Lumens: 4889.6 lumens
Efficiency: 100.0%
Efficacy: 128.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 38.107
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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	62	74	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	61	55	51	48
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42
6	69	55	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	36
7	64	50	41	35	62	49	41	35	48	40	35	46	40	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	5356	5356	5356	5356
5°	5352	5349	5336	5350
10°	5331	5339	5302	5343
15°	5289	5332	5248	5341
20°	5236	5326	5177	5336
25°	5157	5317	5091	5335
30°	5067	5307	4983	5336
35°	4962	5294	4874	5343
40°	4836	5290	4739	5349
45°	4708	5294	4601	5372
50°	4569	5313	4451	5416
55°	4419	5349	4278	5488
60°	4236	5438	4095	5624
65°	4032	5588	3874	5836
70°	3773	5798	3591	6131
75°	3416	6052	3172	6509
80°	2889	6149	2573	6810
85°	2050	5145	1704	6144



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	157.5	3.2	3.2	0°	1666	1666	1666	1666	1666	
10°-20°	449.8	9.2	9.2	5°	1659	1658	1654	1658	1659	158
20°-30°	678.9	13.9	13.9	15°	1590	1602	1577	1605	1590	448
30°-40°	815.9	16.7	16.7	25°	1454	1499	1436	1504	1454	670
40°-50°	848.2	17.3	17.3	35°	1265	1349	1242	1362	1265	791
50°-60°	780.3	16.0	16.0	45°	1036	1165	1012	1182	1036	799
60°-70°	628.6	12.9	12.9	55°	788	954	763	979	788	704
70°-80°	407.0	8.3	8.3	65°	530	735	509	767	530	525
80°-90°	123.4	2.5	2.5	75°	275	487	255	524	275	291
90°-100°	0.0	0.0	0.0	85°	56	140	46	167	56	69
100°-110°	0.0	0.0	0.0	90°	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°	1286.1	26.3	26.3							
0°-40°	2102.1	43.0	43.0							
0°-60°	3730.6	76.3	76.3							
0°-90°	4889.6	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°	4889.6	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1666.4	1666.4	1666.4	1666.4	1666.4	1666.4	1666.4	1666.4	1666.4	1666.4	1666.4
1°	1666.1	1669.0	1666.7	1664.7	1664.7	1666.0	1665.2	1669.0	1667.0	1664.8	1664.9
2°	1665.2	1668.0	1665.5	1664.1	1663.8	1664.9	1663.9	1668.1	1666.5	1664.1	1664.2
3°	1664.0	1666.2	1663.6	1662.5	1661.1	1662.8	1661.4	1666.3	1665.2	1662.6	1663.2
4°	1661.8	1663.6	1661.3	1660.4	1659.0	1660.3	1658.4	1663.9	1663.1	1660.7	1661.3
5°	1658.9	1660.4	1658.6	1658.0	1656.2	1657.0	1653.9	1660.3	1660.4	1658.1	1658.6
6°	1655.4	1656.4	1654.5	1654.5	1652.4	1653.2	1649.6	1656.5	1657.3	1654.9	1655.9
7°	1650.9	1651.6	1650.3	1651.0	1647.9	1648.4	1644.0	1651.6	1653.4	1651.2	1652.3
8°	1646.0	1646.6	1645.2	1646.3	1642.4	1643.1	1638.2	1646.2	1648.9	1647.1	1647.6
9°	1640.2	1640.4	1639.6	1641.9	1637.2	1637.0	1630.9	1640.3	1643.9	1642.4	1643.4
10°	1633.4	1633.8	1634.0	1635.8	1631.4	1630.1	1624.5	1633.6	1638.4	1637.2	1637.5
11°	1626.4	1626.6	1627.3	1630.7	1624.8	1623.2	1615.9	1626.4	1632.1	1631.6	1631.5
12°	1618.2	1618.6	1620.1	1623.9	1617.5	1615.2	1607.0	1618.6	1625.2	1625.0	1625.1
13°	1609.8	1609.8	1612.7	1617.8	1610.1	1605.9	1597.8	1610.0	1618.1	1619.0	1618.2
14°	1600.6	1600.4	1604.5	1610.2	1602.4	1597.3	1587.5	1600.9	1610.4	1611.8	1610.7
15°	1589.5	1590.6	1595.8	1602.4	1593.4	1586.7	1577.2	1591.2	1602.1	1605.2	1602.2
16°	1579.9	1580.3	1586.5	1594.4	1584.8	1577.4	1565.3	1580.6	1593.6	1596.6	1595.1
17°	1567.6	1568.6	1576.9	1585.8	1575.4	1565.1	1553.3	1569.3	1584.6	1589.0	1585.3
18°	1556.6	1557.0	1566.4	1576.6	1564.9	1554.8	1540.8	1558.0	1574.1	1579.2	1577.0
19°	1542.7	1544.5	1555.6	1567.0	1554.3	1541.3	1527.3	1545.4	1564.7	1570.1	1565.6
20°	1530.7	1531.5	1544.5	1557.0	1543.2	1528.5	1513.6	1532.8	1552.8	1560.1	1556.5
21°	1515.3	1518.1	1532.7	1546.2	1531.7	1515.1	1499.3	1518.3	1542.8	1549.8	1544.6
22°	1501.1	1504.0	1520.5	1535.1	1519.9	1501.5	1484.1	1504.2	1530.3	1539.1	1534.5
23°	1486.2	1489.2	1507.9	1523.5	1506.3	1487.3	1468.4	1490.0	1518.1	1528.0	1521.0
24°	1470.3	1472.7	1494.4	1511.3	1494.3	1472.5	1452.3	1474.8	1505.5	1516.4	1508.7
25°	1454.0	1458.2	1479.6	1499.2	1479.4	1457.0	1435.5	1459.3	1492.4	1504.4	1495.7
26°	1437.2	1440.8	1466.5	1486.2	1466.9	1441.4	1418.3	1443.5	1478.8	1491.6	1482.8
27°	1420.1	1425.5	1450.5	1472.8	1451.1	1425.0	1400.6	1426.8	1464.8	1479.0	1468.9
28°	1402.2	1407.1	1436.6	1458.8	1436.0	1408.3	1380.5	1410.0	1450.2	1465.7	1454.8
29°	1383.8	1391.1	1419.5	1444.6	1421.2	1391.0	1363.5	1392.8	1435.2	1451.7	1440.2
30°	1365.2	1371.1	1405.0	1430.0	1405.1	1373.0	1342.5	1375.0	1420.1	1437.7	1425.0
31°	1346.0	1352.9	1387.1	1413.5	1389.1	1353.7	1324.7	1356.6	1404.3	1423.4	1409.7
32°	1326.3	1333.8	1370.2	1399.5	1372.7	1336.7	1302.7	1338.0	1388.2	1408.4	1394.0
33°	1306.2	1314.4	1353.1	1382.2	1355.4	1315.8	1284.3	1318.5	1371.6	1393.2	1377.5
34°	1285.7	1294.7	1335.2	1367.3	1338.5	1298.3	1261.6	1299.1	1354.5	1377.6	1361.3
35°	1264.6	1274.6	1317.2	1349.1	1320.6	1276.7	1242.3	1279.4	1337.4	1361.6	1344.1
36°	1243.4	1254.2	1299.0	1333.7	1302.6	1256.7	1218.7	1259.2	1318.3	1345.3	1326.7
37°	1221.6	1233.1	1280.1	1314.8	1284.4	1236.1	1196.9	1236.6	1301.8	1327.1	1309.2
38°	1197.7	1212.1	1261.2	1298.8	1265.6	1215.1	1174.7	1217.5	1281.9	1311.5	1290.9
39°	1177.4	1190.5	1241.6	1279.2	1246.5	1194.3	1152.3	1194.3	1265.1	1292.5	1273.1
40°	1152.7	1168.8	1222.1	1260.7	1227.3	1172.8	1129.5	1174.9	1244.5	1274.8	1252.8
41°	1129.7	1146.7	1202.2	1241.8	1207.9	1151.2	1106.4	1151.3	1226.9	1256.5	1235.3
42°	1106.6	1124.4	1182.0	1223.1	1187.5	1129.3	1083.1	1131.2	1205.5	1238.3	1214.7
43°	1083.2	1101.7	1161.5	1203.7	1167.9	1106.9	1059.7	1106.9	1185.6	1219.7	1196.9
44°	1059.6	1078.9	1140.7	1184.3	1145.3	1084.5	1036.1	1084.5	1165.5	1201.0	1175.4



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	1035.7	1055.8	1119.6	1164.6	1126.4	1061.8	1012.3	1061.8	1145.3	1181.8	1156.9
46°	1011.6	1032.6	1098.3	1144.6	1103.6	1039.1	988.0	1038.7	1124.6	1162.6	1134.5
47°	987.3	1007.0	1076.8	1124.5	1084.4	1016.1	963.8	1015.7	1103.7	1142.9	1114.3
48°	963.1	985.5	1053.1	1104.0	1061.2	992.7	939.6	992.1	1082.9	1123.3	1093.4
49°	938.6	959.5	1033.2	1083.2	1041.5	969.5	915.0	968.9	1061.7	1103.4	1072.8
50°	913.7	937.8	1009.2	1062.6	1017.8	945.8	890.2	945.2	1040.3	1083.2	1051.9
51°	889.0	911.3	989.0	1041.5	998.0	922.0	865.5	921.4	1018.7	1063.1	1030.4
52°	863.9	889.4	964.6	1020.6	973.8	898.6	841.0	897.7	997.0	1042.9	1009.0
53°	838.9	862.7	944.2	997.2	951.8	874.6	813.5	874.0	975.3	1020.6	987.5
54°	813.8	840.5	919.4	977.7	929.6	848.4	790.8	849.6	953.4	1001.9	965.8
55°	788.5	813.7	898.7	954.5	907.2	826.5	763.4	825.4	931.3	979.3	943.9
56°	760.9	789.0	873.7	933.0	884.7	800.1	738.2	801.2	909.2	960.5	922.2
57°	737.8	764.1	850.9	911.4	862.1	778.1	713.0	776.8	887.0	937.7	900.4
58°	709.9	739.6	827.6	889.6	839.5	751.6	687.6	752.7	864.6	918.7	878.4
59°	686.8	714.7	804.4	867.8	816.7	729.3	662.1	728.2	842.5	895.9	856.4
60°	658.9	689.7	781.2	845.9	793.8	702.7	637.0	703.7	819.8	874.8	834.0
61°	635.4	664.8	757.7	823.9	771.0	678.0	611.5	679.3	795.2	853.8	811.7
62°	607.5	640.0	734.3	801.8	748.0	653.7	586.0	652.4	774.7	832.4	789.2
63°	581.7	615.1	710.8	779.7	724.9	629.1	560.6	630.3	749.8	810.7	766.9
64°	556.0	589.8	687.1	757.2	701.6	604.6	535.0	603.4	729.2	789.2	744.2
65°	530.2	564.8	663.3	734.7	678.1	579.8	509.4	580.9	704.0	767.3	719.3
66°	504.4	539.7	639.4	711.8	654.6	555.2	483.9	554.1	683.0	745.1	698.5
67°	478.7	514.8	615.4	688.7	631.0	530.8	458.4	531.9	657.6	722.6	672.8
68°	452.9	489.8	591.2	665.2	606.9	506.0	432.9	505.1	634.0	699.7	651.8
69°	427.2	464.8	566.4	641.2	580.3	481.2	407.4	480.3	610.3	676.2	625.8
70°	401.5	439.6	541.7	617.0	557.9	456.4	382.1	455.8	586.3	652.4	601.7
71°	375.9	414.8	517.0	592.0	531.0	431.7	354.5	431.1	562.0	628.0	577.2
72°	350.3	387.5	491.6	564.2	507.9	407.2	331.7	406.4	537.6	603.0	552.4
73°	325.0	364.8	463.7	540.8	479.9	382.4	304.5	381.9	512.4	577.4	527.3
74°	300.0	337.6	437.7	511.8	453.7	357.6	282.0	357.4	487.2	551.2	501.5
75°	275.1	313.0	411.6	487.3	427.5	332.9	255.4	332.8	461.4	524.1	475.3
76°	250.3	288.3	385.0	456.3	400.6	308.2	233.5	308.5	435.4	496.5	448.7
77°	226.1	263.9	358.1	430.2	372.8	283.8	206.6	284.1	408.9	467.3	421.5
78°	202.3	239.8	330.3	398.5	344.4	259.5	183.4	259.9	381.9	434.9	393.9
79°	179.0	215.9	302.3	371.1	315.9	233.2	160.8	235.8	354.2	406.5	364.9
80°	156.1	192.5	273.9	332.2	286.0	211.5	139.0	209.3	325.6	367.9	335.1
81°	132.7	170.0	244.5	294.9	253.2	186.3	119.1	187.3	294.4	329.7	301.6
82°	112.1	146.1	207.8	254.5	207.8	163.5	98.3	165.5	261.7	288.1	265.0
83°	91.0	124.4	175.5	217.1	180.0	139.0	80.0	142.2	223.4	248.3	228.2
84°	72.6	101.9	140.7	179.6	146.5	116.2	61.8	120.5	188.0	207.0	189.0
85°	55.6	80.6	108.7	139.5	113.5	91.1	46.2	99.1	152.4	166.6	152.3
86°	39.4	58.3	76.5	101.6	79.7	65.3	32.4	74.5	117.3	123.0	115.5
87°	26.3	36.7	48.7	69.4	50.8	46.8	20.7	53.2	82.1	85.0	79.4
88°	15.1	19.2	24.6	36.2	23.7	22.2	11.3	31.2	53.9	51.0	54.0
89°	7.1	5.4	2.4	4.2	1.3	6.1	4.1	14.1	22.3	15.7	18.0



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	0.4	0.0	0.1	0.0	0.0	0.0	0.0	2.3	1.3	0.0	0.1



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	1666.4	1666.4
1°	1666.1	1666.1
2°	1665.1	1665.2
3°	1663.6	1664.0
4°	1661.3	1661.8
5°	1658.2	1658.9
6°	1654.9	1655.4
7°	1650.5	1650.9
8°	1645.4	1646.0
9°	1639.9	1640.2
10°	1633.8	1633.4
11°	1625.8	1626.4
12°	1618.7	1618.2
13°	1609.4	1609.8
14°	1600.6	1600.6
15°	1591.0	1589.5
16°	1580.5	1579.9
17°	1570.0	1567.6
18°	1558.5	1556.6
19°	1546.3	1542.7
20°	1533.6	1530.7
21°	1520.7	1515.3
22°	1507.3	1501.1
23°	1493.0	1486.2
24°	1478.4	1470.3
25°	1463.1	1454.0
26°	1447.5	1437.2
27°	1431.4	1420.1
28°	1414.9	1402.2
29°	1397.7	1383.8
30°	1379.0	1365.2
31°	1362.5	1346.0
32°	1342.3	1326.3
33°	1325.1	1306.2
34°	1304.2	1285.7
35°	1286.8	1264.6
36°	1265.1	1243.4
37°	1244.4	1221.6
38°	1223.8	1197.7
39°	1202.9	1177.4
40°	1181.6	1152.7
41°	1160.0	1129.7
42°	1138.7	1106.6
43°	1116.2	1083.2
44°	1094.0	1059.6



TEST NUMBER: A1707061C001(120V)

CATALOG NUMBER: 22RTC4840

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	1071.4	1035.7
46°	1049.0	1011.6
47°	1026.0	987.3
48°	1003.0	963.1
49°	979.8	938.6
50°	956.0	913.7
51°	932.5	889.0
52°	908.9	863.9
53°	885.0	838.9
54°	861.3	813.8
55°	835.0	788.5
56°	813.2	760.9
57°	786.9	737.8
58°	764.8	709.9
59°	738.3	686.8
60°	716.0	658.9
61°	689.4	635.4
62°	665.0	607.5
63°	640.4	581.7
64°	616.0	556.0
65°	591.4	530.2
66°	566.8	504.4
67°	542.2	478.7
68°	517.7	452.9
69°	493.0	427.2
70°	468.4	401.5
71°	443.7	375.9
72°	419.1	350.3
73°	392.0	325.0
74°	369.3	300.0
75°	342.4	275.1
76°	319.7	250.3
77°	292.6	226.1
78°	270.4	202.3
79°	243.6	179.0
80°	208.1	156.1
81°	195.9	132.7
82°	171.5	112.1
83°	149.0	91.0
84°	124.3	72.6
85°	101.1	55.6
86°	74.2	39.4
87°	50.3	26.3
88°	28.8	15.1
89°	11.1	7.1



TEST NUMBER: A1707061C001(120V)

CATALOG NUMBER: 22RTC4840

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	0.1	0.4

(END OF REPORT)