

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: A1707061D001(277V)

Luminaire Tested: **22RTC4840**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: A1707061D001(277V)
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA A1707061D001
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

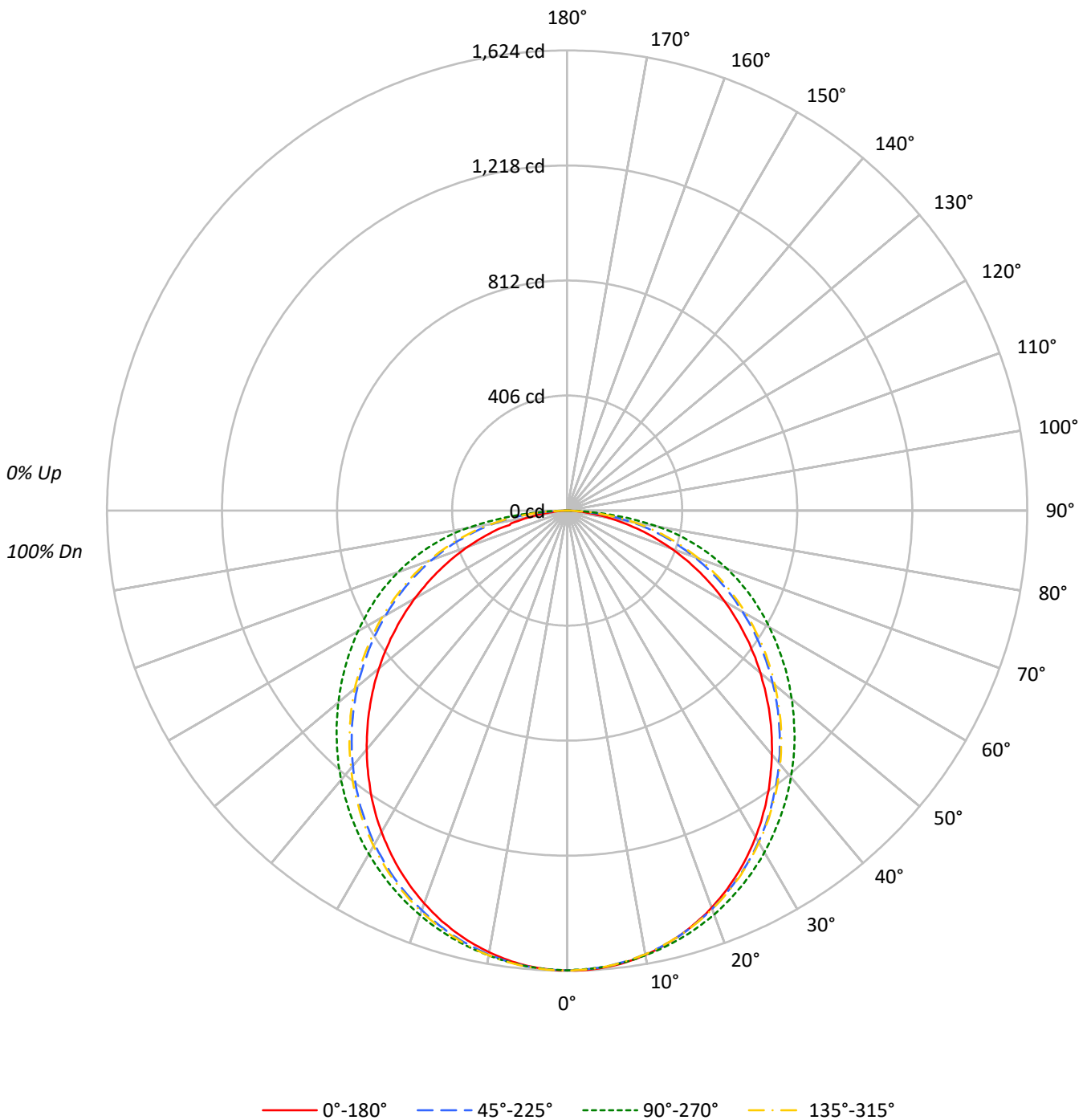
Lumens per Lamp: 4761.142 (1 lamp)
Luminaire Lumens: 4761.1 lumens
Efficiency: 100.0%
Efficacy: 130.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 36.633
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°	5216	5216	5216	5216
5°	5217	5210	5203	5210
10°	5195	5201	5167	5203
15°	5156	5195	5116	5200
20°	5101	5188	5045	5195
25°	5028	5180	4961	5194
30°	4939	5167	4861	5194
35°	4831	5159	4749	5200
40°	4716	5155	4617	5212
45°	4591	5159	4482	5227
50°	4456	5178	4337	5270
55°	4297	5214	4167	5350
60°	4131	5302	4002	5483
65°	3934	5448	3773	5693
70°	3683	5654	3496	5965
75°	3336	5875	3111	6329
80°	2788	6012	2501	6671
85°	1969	5034	1689	5952



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	153.4	3.2	3.2	0°	1623	1623	1623	1623	1623	
10°-20°	438.0	9.2	9.2	5°	1617	1615	1612	1615	1617	154
20°-30°	661.1	13.9	13.9	15°	1549	1561	1538	1563	1549	437
30°-40°	794.6	16.7	16.7	25°	1418	1460	1399	1464	1418	653
40°-50°	825.9	17.3	17.3	35°	1231	1315	1210	1325	1231	770
50°-60°	759.7	16.0	16.0	45°	1010	1135	986	1150	1010	779
60°-70°	612.0	12.9	12.9	55°	767	930	744	955	767	686
70°-80°	396.2	8.3	8.3	65°	517	716	496	748	517	512
80°-90°	120.2	2.5	2.5	75°	269	473	250	510	269	283
90°-100°	0.0	0.0	0.0	85°	53	136	46	161	53	66
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°	1252.5	26.3	26.3							
0°-40°	2047.1	43.0	43.0							
0°-60°	3632.7	76.3	76.3							
0°-90°	4761.1	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°	4761.1	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9	1622.9
1°	1623.9	1622.5	1621.8	1621.0	1621.4	1623.9	1623.2	1622.3	1622.3	1621.2	1622.1
2°	1623.3	1621.0	1620.7	1620.4	1620.2	1622.9	1621.5	1621.3	1621.5	1620.3	1621.3
3°	1621.8	1619.6	1618.8	1618.8	1618.4	1620.9	1619.3	1619.8	1620.4	1619.0	1620.4
4°	1619.6	1617.1	1616.7	1617.2	1616.3	1618.6	1616.2	1617.0	1618.5	1617.1	1618.4
5°	1617.0	1614.2	1613.9	1614.7	1613.9	1615.0	1612.5	1614.1	1616.0	1614.7	1616.2
6°	1613.6	1610.4	1610.6	1611.5	1610.2	1611.1	1608.1	1610.1	1612.9	1611.5	1613.6
7°	1609.3	1606.2	1606.4	1607.8	1605.4	1606.7	1603.0	1605.4	1608.9	1608.2	1609.8
8°	1604.1	1601.1	1601.6	1603.5	1601.2	1601.3	1596.8	1600.2	1605.0	1604.2	1605.6
9°	1598.9	1595.2	1596.3	1599.0	1595.2	1595.6	1590.2	1594.1	1599.6	1599.4	1600.8
10°	1591.8	1589.0	1590.5	1593.5	1590.3	1589.1	1583.2	1587.8	1594.6	1594.2	1595.9
11°	1585.3	1582.0	1583.8	1587.9	1583.5	1581.9	1575.3	1580.5	1587.9	1588.8	1590.2
12°	1576.7	1574.2	1577.3	1582.0	1576.1	1574.0	1566.2	1572.7	1581.8	1583.0	1583.8
13°	1569.2	1565.9	1569.1	1575.3	1569.1	1565.4	1557.8	1564.3	1574.1	1576.4	1576.9
14°	1559.2	1556.9	1561.9	1568.4	1561.0	1556.4	1547.2	1555.5	1567.3	1569.8	1569.3
15°	1549.4	1547.1	1552.7	1561.1	1552.8	1547.0	1537.5	1545.9	1558.8	1562.7	1561.8
16°	1539.2	1537.0	1544.5	1553.2	1544.0	1537.0	1525.4	1535.5	1550.2	1554.9	1553.2
17°	1528.0	1524.9	1534.4	1544.7	1534.6	1526.2	1514.9	1525.0	1541.3	1546.7	1545.3
18°	1516.4	1513.4	1524.3	1536.1	1524.6	1514.9	1501.5	1513.5	1532.0	1538.2	1535.4
19°	1504.3	1501.4	1513.7	1526.5	1514.1	1503.1	1488.6	1501.9	1521.9	1529.1	1526.0
20°	1491.2	1488.7	1502.8	1516.8	1503.5	1490.8	1475.0	1489.1	1511.5	1518.7	1515.6
21°	1477.5	1475.5	1491.5	1506.6	1492.3	1477.7	1460.9	1476.1	1500.8	1508.8	1505.3
22°	1463.5	1461.9	1479.5	1495.5	1480.4	1463.2	1446.1	1462.5	1489.2	1498.5	1494.2
23°	1448.7	1447.4	1467.0	1484.3	1468.5	1450.6	1430.9	1448.5	1477.5	1487.5	1482.9
24°	1433.4	1432.7	1454.1	1471.5	1455.4	1434.7	1415.1	1434.0	1465.3	1476.1	1470.6
25°	1417.7	1417.4	1440.8	1460.5	1442.2	1421.1	1398.9	1418.7	1452.4	1464.5	1458.3
26°	1401.2	1401.8	1426.9	1446.8	1428.8	1404.3	1382.1	1403.4	1439.1	1452.2	1445.1
27°	1384.5	1385.7	1412.6	1435.0	1414.8	1390.0	1364.8	1387.4	1425.4	1439.6	1431.6
28°	1367.1	1369.1	1398.1	1420.3	1399.0	1372.0	1346.8	1369.4	1411.3	1426.9	1417.8
29°	1349.2	1351.7	1382.7	1407.5	1385.4	1355.2	1328.6	1354.0	1396.9	1413.3	1403.6
30°	1330.9	1334.3	1367.3	1392.1	1368.8	1337.8	1309.8	1335.0	1382.2	1399.5	1389.2
31°	1310.6	1316.4	1351.2	1377.3	1354.5	1320.2	1290.9	1319.1	1366.8	1385.5	1372.9
32°	1293.0	1298.2	1334.7	1362.2	1336.7	1302.1	1271.3	1299.1	1349.4	1371.0	1359.0
33°	1271.6	1279.2	1316.4	1346.7	1321.5	1283.7	1251.2	1281.8	1334.9	1356.1	1341.6
34°	1253.4	1260.1	1300.8	1330.9	1303.3	1264.7	1230.8	1261.2	1317.1	1340.7	1327.1
35°	1231.1	1240.5	1281.8	1314.7	1286.2	1245.4	1210.4	1243.8	1301.8	1325.2	1309.0
36°	1212.2	1218.7	1263.8	1298.2	1269.0	1225.8	1187.4	1222.6	1283.2	1309.4	1293.6
37°	1189.1	1200.3	1245.6	1281.4	1251.1	1205.8	1166.2	1202.3	1267.2	1291.5	1274.8
38°	1167.8	1177.9	1227.1	1264.2	1232.6	1185.8	1144.6	1182.0	1247.8	1276.4	1258.8
39°	1146.0	1158.9	1208.3	1246.6	1214.2	1165.1	1122.7	1161.6	1231.2	1257.9	1239.5
40°	1124.0	1135.6	1189.1	1228.6	1195.1	1142.4	1100.5	1140.7	1211.1	1242.1	1221.0
41°	1101.6	1116.5	1169.9	1210.4	1176.4	1123.2	1077.9	1119.4	1192.5	1223.1	1202.5
42°	1079.1	1092.5	1150.0	1192.0	1157.1	1099.9	1055.4	1097.9	1173.5	1206.8	1183.8
43°	1056.5	1070.6	1130.2	1173.3	1137.0	1080.2	1032.5	1076.3	1154.2	1187.0	1164.9
44°	1033.3	1048.3	1109.8	1154.2	1117.3	1056.5	1009.3	1054.3	1134.4	1168.7	1145.3



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	1009.9	1025.8	1089.3	1134.9	1096.9	1036.1	986.0	1032.4	1114.8	1150.0	1126.2
46°	986.7	1003.2	1068.9	1115.5	1076.4	1011.9	962.7	1009.8	1094.6	1131.3	1106.5
47°	960.9	980.6	1047.8	1094.2	1056.2	989.5	939.2	987.4	1074.5	1112.3	1086.7
48°	939.2	957.5	1026.5	1076.2	1035.7	967.2	915.3	962.9	1054.2	1092.9	1066.5
49°	913.1	934.4	1005.3	1053.9	1014.3	944.0	891.3	942.2	1033.4	1073.7	1045.8
50°	891.1	911.1	983.8	1035.6	993.0	921.2	867.4	917.1	1012.7	1054.0	1025.2
51°	864.7	887.7	962.3	1013.2	971.2	898.1	843.3	896.1	991.7	1034.5	1004.5
52°	842.7	864.0	938.5	994.7	950.4	875.1	819.2	870.7	968.9	1014.7	983.6
53°	816.0	840.4	918.5	972.0	926.7	851.7	792.5	847.5	949.5	994.7	962.9
54°	793.8	816.5	894.4	953.2	907.0	828.2	770.3	824.1	926.1	974.7	942.0
55°	766.9	790.5	874.2	930.5	883.4	804.8	743.7	800.7	906.6	954.7	920.8
56°	742.1	768.7	849.9	909.5	863.3	781.2	721.4	777.1	883.1	934.5	897.5
57°	717.4	742.5	829.6	888.6	839.3	757.5	694.6	753.7	861.5	914.2	878.1
58°	692.7	720.6	805.0	867.4	817.2	733.9	672.1	729.9	839.8	893.8	854.8
59°	667.6	694.2	782.5	846.1	795.2	709.9	645.2	706.3	817.9	873.5	835.1
60°	642.7	672.2	759.8	824.8	772.9	686.1	622.6	682.4	796.1	853.0	811.1
61°	617.7	645.8	737.2	803.3	750.6	662.2	595.3	658.8	774.1	832.4	791.5
62°	592.7	623.8	714.3	781.8	728.0	638.4	570.9	635.0	752.2	809.8	767.8
63°	567.5	597.3	691.4	760.2	705.6	612.4	545.8	611.1	729.9	790.8	746.0
64°	542.4	572.9	668.3	738.5	683.2	590.6	521.0	587.1	707.8	767.7	723.8
65°	517.3	548.3	645.3	716.3	660.0	564.3	496.1	563.2	685.4	748.5	701.7
66°	492.1	524.2	621.9	694.1	637.4	542.4	471.2	539.2	662.9	724.9	679.4
67°	467.0	499.9	598.6	669.5	614.1	516.4	446.3	515.3	640.2	704.9	656.8
68°	441.9	475.6	574.8	648.7	591.0	494.7	421.6	491.6	617.5	680.6	633.9
69°	417.0	451.1	551.1	623.2	567.1	468.2	396.8	465.3	594.4	657.8	610.8
70°	391.9	426.8	527.0	601.6	543.1	446.2	372.0	443.6	571.1	634.7	587.4
71°	366.9	402.5	502.7	575.2	516.5	420.0	347.4	417.5	547.4	610.9	563.5
72°	339.7	378.1	478.1	550.4	494.2	396.0	322.9	395.8	523.6	586.4	539.1
73°	317.4	353.9	453.2	525.2	466.9	371.9	298.6	369.7	499.2	561.4	514.4
74°	290.6	329.8	428.0	499.3	443.8	347.7	274.4	348.1	474.7	535.9	489.6
75°	268.6	305.7	402.5	473.1	415.6	323.6	250.5	322.1	447.2	509.6	464.0
76°	242.3	281.8	376.6	445.3	392.0	299.7	209.2	300.5	424.2	482.7	438.1
77°	220.9	257.9	348.1	417.3	362.4	275.8	203.0	274.7	396.0	454.2	411.7
78°	195.5	234.4	323.5	389.3	334.8	252.1	178.3	251.3	372.2	425.3	385.0
79°	174.8	211.3	293.8	359.5	307.0	228.5	158.3	227.9	342.8	395.1	354.0
80°	150.6	186.4	268.6	324.8	277.8	205.4	135.1	204.0	317.5	360.4	324.9
81°	129.9	164.5	237.6	288.1	245.8	182.8	115.7	182.6	286.7	319.8	295.0
82°	108.0	143.2	202.0	248.7	207.0	158.7	97.1	159.6	252.2	282.3	259.3
83°	89.0	120.4	170.5	212.3	176.8	134.8	77.8	138.7	217.6	240.2	223.6
84°	69.8	100.0	139.0	173.2	142.0	112.7	61.1	116.0	183.3	200.3	185.2
85°	53.4	79.4	107.6	136.5	109.9	88.1	45.8	95.2	146.5	161.4	149.5
86°	37.8	57.6	74.3	99.6	77.0	64.4	31.5	72.8	112.4	119.0	111.6
87°	25.2	35.4	47.5	68.0	49.1	41.2	20.1	50.8	78.4	84.1	76.4
88°	14.8	18.4	24.0	35.8	23.9	22.1	10.8	30.6	54.0	49.1	53.4
89°	6.9	5.7	2.4	4.5	1.6	6.4	3.9	13.9	21.9	14.8	18.2



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.3	0.0	0.1



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	1622.9	1622.9
1°	1624.0	1623.9
2°	1622.9	1623.3
3°	1621.5	1621.8
4°	1619.0	1619.6
5°	1616.2	1617.0
6°	1612.7	1613.6
7°	1608.5	1609.3
8°	1603.5	1604.1
9°	1598.0	1598.9
10°	1591.9	1591.8
11°	1584.9	1585.3
12°	1577.3	1576.7
13°	1569.2	1569.2
14°	1560.5	1559.2
15°	1550.9	1549.4
16°	1540.9	1539.2
17°	1530.4	1528.0
18°	1519.2	1516.4
19°	1507.6	1504.3
20°	1495.3	1491.2
21°	1481.4	1477.5
22°	1469.3	1463.5
23°	1454.5	1448.7
24°	1441.4	1433.4
25°	1425.4	1417.7
26°	1411.4	1401.2
27°	1394.6	1384.5
28°	1378.3	1367.1
29°	1361.7	1349.2
30°	1344.5	1330.9
31°	1327.0	1310.6
32°	1309.3	1293.0
33°	1291.0	1271.6
34°	1272.1	1253.4
35°	1253.3	1231.1
36°	1233.8	1212.2
37°	1213.8	1189.1
38°	1193.6	1167.8
39°	1173.4	1146.0
40°	1152.4	1124.0
41°	1131.7	1101.6
42°	1110.5	1079.1
43°	1088.9	1056.5
44°	1065.2	1033.3



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CANDELA DISTRIBUTION (continued):

	330°	360°
45°	1045.3	1009.9
46°	1021.1	986.7
47°	1000.9	960.9
48°	976.4	939.2
49°	953.6	913.1
50°	930.8	891.1
51°	907.8	864.7
52°	884.8	842.7
53°	861.8	816.0
54°	838.4	793.8
55°	814.9	766.9
56°	791.4	742.1
57°	767.7	717.4
58°	744.3	692.7
59°	720.7	667.6
60°	694.7	642.7
61°	673.1	617.7
62°	647.1	592.7
63°	625.4	567.5
64°	599.3	542.4
65°	577.5	517.3
66°	551.5	492.1
67°	529.8	467.0
68°	503.6	441.9
69°	479.6	417.0
70°	455.5	391.9
71°	431.4	366.9
72°	407.4	339.7
73°	383.2	317.4
74°	358.9	290.6
75°	334.6	268.6
76°	310.5	242.3
77°	286.5	220.9
78°	262.5	195.5
79°	238.5	174.8
80°	207.7	150.6
81°	190.0	129.9
82°	168.1	108.0
83°	144.4	89.0
84°	122.1	69.8
85°	97.8	53.4
86°	71.7	37.8
87°	49.8	25.2
88°	27.7	14.8
89°	10.4	6.9



TEST NUMBER: A1707061D001(277V)

CATALOG NUMBER: 22RTC4840

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	0.1	0.4

(END OF REPORT)