

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: A1708561A002(277V)

Luminaire Tested: **14RTC3440**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: A1708561A002(277V)
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA A1708561A002
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14RTC3440
Description:
Light Source: -
Ballast/Driver: -

Summary

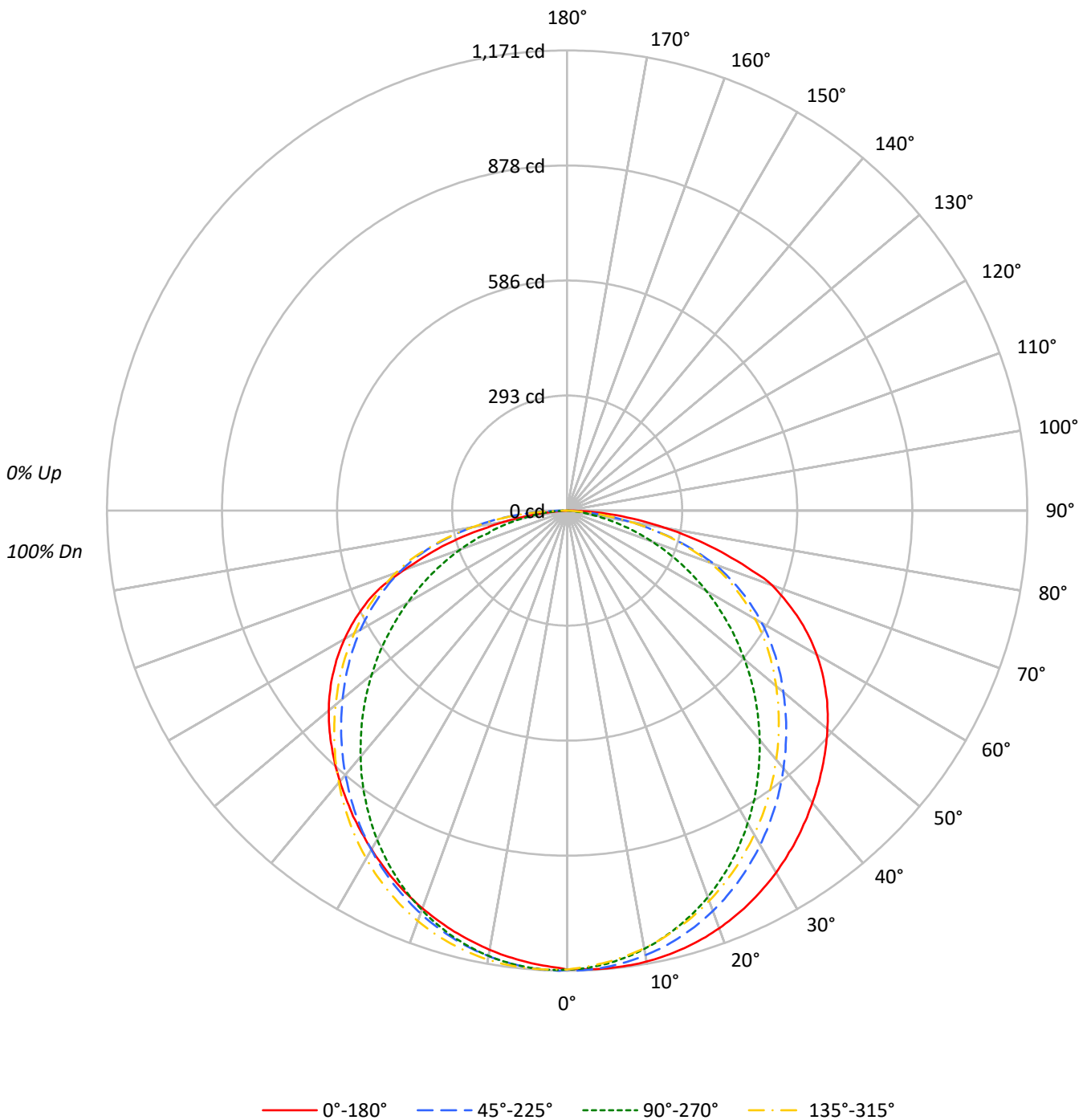
Lumens per Lamp: 3589.822 (1 lamp)
Luminaire Lumens: 3589.8 lumens
Efficiency: 100.0%
Efficacy: 132.7 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.2 / 1.39
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 27.062
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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	68	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	50	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	25	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	3955	3955	3955	3955
5°	3975	3934	3922	3965
10°	4006	3894	3903	3956
15°	4040	3839	3888	3934
20°	4076	3771	3882	3896
25°	4113	3690	3882	3845
30°	4158	3591	3891	3781
35°	4213	3485	3925	3700
40°	4291	3369	3978	3614
45°	4402	3243	4060	3521
50°	4555	3106	4172	3420
55°	4742	2945	4297	3301
60°	4969	2768	4431	3178
65°	5216	2556	4546	3037
70°	5491	2281	4387	2863
75°	5317	1888	3929	2620
80°	4928	1361	3136	2278
85°	4371	614	1434	1880



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	110.5	3.1	3.1	0°	1168	1168	1168	1168	1168	
10°-20°	316.4	8.8	8.8	5°	1170	1158	1154	1167	1170	111
20°-30°	479.5	13.4	13.4	15°	1153	1095	1109	1122	1153	326
30°-40°	581.4	16.2	16.2	25°	1101	988	1039	1029	1101	508
40°-50°	616.5	17.2	17.2	35°	1019	843	950	895	1019	639
50°-60°	588.0	16.4	16.4	45°	919	677	848	735	919	710
60°-70°	494.2	13.8	13.8	55°	803	499	728	559	803	719
70°-80°	316.2	8.8	8.8	65°	651	319	567	379	651	642
80°-90°	87.1	2.4	2.4	75°	406	144	300	200	406	427
90°-100°	0.0	0.0	0.0	85°	112	16	37	48	112	128
100°-110°	0.0	0.0	0.0	90°	1	0	0	6	1	
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°	906.4	25.2	25.2							
0°-40°	1487.8	41.4	41.4							
0°-60°	2692.3	75.0	75.0							
0°-90°	3589.8	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°	3589.8	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1168.1	<i>1168.1</i>	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1
1°	<i>1166.8</i>	<i>1172.5</i>	<i>1169.8</i>	<i>1167.5</i>	<i>1165.4</i>	<i>1164.7</i>	<i>1163.9</i>	<i>1172.0</i>	<i>1170.7</i>	<i>1169.4</i>	<i>1167.9</i>
2°	1167.9	<i>1172.3</i>	1168.8	1165.8	1162.7	1162.8	1161.7	1170.9	1170.3	1169.4	1168.6
3°	1169.0	<i>1171.3</i>	1166.8	1163.5	1159.8	1160.5	1159.4	1169.7	1169.8	1169.1	1169.1
4°	1169.2	<i>1170.6</i>	1164.8	1160.8	1156.5	1157.4	1156.8	1168.4	1168.6	1168.2	1168.9
5°	1169.5	<i>1169.0</i>	1162.2	1157.5	1153.3	1154.9	1154.0	1166.5	1166.7	1166.6	1168.3
6°	1169.2	<i>1167.3</i>	1158.9	1153.5	1148.9	1150.6	1150.8	1164.3	1164.4	1164.5	1166.8
7°	1168.6	<i>1164.9</i>	1155.5	1148.8	1144.4	1147.3	1146.9	1161.7	1161.7	1161.9	1165.7
8°	1167.8	<i>1162.0</i>	1151.3	1144.4	1139.3	1142.9	1143.6	1158.4	1158.8	1158.7	1163.4
9°	1166.8	<i>1159.4</i>	1146.6	1138.7	1133.7	1138.8	1139.2	1155.4	1154.9	1155.3	1160.9
10°	1165.2	<i>1155.8</i>	1141.7	1132.4	1127.6	1133.7	1135.1	1151.6	1150.7	1150.7	1158.0
11°	1163.5	<i>1152.3</i>	1136.2	1126.2	1121.4	1128.3	1130.2	1147.3	1146.4	1146.4	1154.3
12°	1161.0	<i>1148.2</i>	1130.5	1119.0	1114.6	1123.2	1125.3	1143.5	1141.5	1140.8	1150.2
13°	1158.8	<i>1143.5</i>	1124.0	1111.4	1107.6	1117.3	1120.0	1138.8	1136.2	1135.5	1145.4
14°	1155.6	<i>1138.9</i>	1117.0	1103.7	1099.9	1110.9	1114.6	1133.4	1130.4	1128.9	1140.7
15°	1152.6	<i>1133.3</i>	1109.9	1095.1	1091.6	1104.7	1109.2	1128.2	1123.8	1122.2	1135.3
16°	1148.9	<i>1127.6</i>	1101.9	1086.4	1083.6	1098.0	1103.0	1121.9	1117.2	1115.0	1129.5
17°	1145.0	<i>1122.2</i>	1093.8	1077.2	1074.7	1090.8	1096.9	1116.6	1109.8	1107.1	1123.5
18°	1140.9	<i>1115.2</i>	1085.4	1067.3	1065.3	1083.7	1090.6	1109.2	1102.5	1099.0	1116.7
19°	1136.0	<i>1108.5</i>	1076.5	1057.2	1055.9	1076.3	1083.9	1103.4	1094.5	1090.5	1109.4
20°	1131.2	<i>1101.5</i>	1067.2	1046.6	1045.6	1068.6	1077.3	1096.0	1085.8	1081.2	1101.9
21°	1125.7	<i>1094.0</i>	1056.6	1035.5	1034.6	1060.5	1070.2	1088.8	1076.6	1071.7	1093.6
22°	1120.0	<i>1086.2</i>	1047.4	1024.1	1023.9	1051.9	1062.5	1081.2	1067.2	1061.7	1084.6
23°	1114.0	<i>1077.9</i>	1035.9	1012.1	1013.3	1043.6	1055.2	1073.6	1057.7	1051.2	1076.7
24°	1107.6	<i>1068.7</i>	1026.1	999.9	1001.6	1033.9	1047.3	1065.7	1047.6	1040.6	1066.4
25°	1100.9	<i>1060.9</i>	1013.9	987.6	990.4	1025.5	1039.1	1057.4	1037.3	1029.1	1057.2
26°	1094.0	<i>1050.8</i>	1003.4	974.6	978.5	1015.2	1031.1	1049.0	1026.7	1017.3	1046.7
27°	1086.7	<i>1041.9</i>	990.4	961.4	966.1	1006.5	1022.4	1040.3	1015.7	1005.4	1036.1
28°	1079.3	<i>1031.6</i>	978.4	946.4	953.9	995.8	1012.9	1030.9	1004.5	992.9	1025.1
29°	1071.7	<i>1022.8</i>	965.8	933.9	941.1	986.9	1004.9	1021.9	993.1	980.0	1013.8
30°	1063.5	<i>1011.8</i>	953.2	918.4	928.4	975.8	995.3	1012.1	981.1	967.1	1002.6
31°	1054.6	<i>1001.3</i>	939.9	905.1	915.2	965.5	987.1	1002.6	969.0	953.5	990.5
32°	1046.8	<i>990.8</i>	926.8	889.0	901.7	955.0	977.0	992.3	956.6	939.8	978.5
33°	1037.2	<i>980.0</i>	913.3	875.3	888.6	944.4	968.6	982.0	943.9	924.4	966.1
34°	1029.1	<i>968.9</i>	899.4	858.8	874.7	933.4	958.3	971.8	931.1	911.2	953.2
35°	1019.1	<i>958.1</i>	885.5	843.1	861.0	922.6	949.5	961.5	917.9	895.1	940.2
36°	1010.5	<i>946.9</i>	871.2	827.2	847.1	911.5	939.0	950.7	904.5	881.5	926.9
37°	1000.0	<i>935.5</i>	856.7	811.2	831.6	900.5	929.3	938.8	890.9	864.8	913.4
38°	991.3	<i>923.8</i>	842.2	795.1	818.6	889.5	919.4	929.0	877.3	850.8	899.7
39°	980.7	<i>912.1</i>	827.6	778.7	802.8	878.1	909.6	917.0	863.5	833.7	885.4
40°	970.8	<i>900.6</i>	812.6	762.1	789.5	867.0	899.9	907.1	848.2	817.7	870.0
41°	960.9	<i>888.9</i>	796.3	745.6	773.4	855.7	889.7	894.7	835.3	801.4	857.0
42°	950.6	<i>877.1</i>	782.6	728.5	760.2	844.2	879.4	884.4	819.8	785.1	841.3
43°	940.5	<i>864.9</i>	766.0	711.6	744.0	832.8	869.0	872.1	806.6	768.7	827.8
44°	929.9	<i>852.9</i>	751.0	694.3	729.3	821.2	858.6	860.9	790.8	752.0	811.5



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	919.3	841.1	735.6	677.2	714.3	809.3	847.8	849.4	777.4	735.3	797.7
46°	908.9	829.1	720.2	660.0	699.5	797.7	837.2	837.8	761.3	718.3	781.4
47°	898.0	815.5	705.0	642.4	684.4	784.8	826.0	826.1	746.6	701.2	766.3
48°	887.2	803.1	689.5	625.0	669.6	773.8	815.1	814.4	731.5	684.1	751.5
49°	876.0	790.5	674.3	607.3	654.8	760.7	803.5	802.4	716.7	666.6	736.0
50°	864.6	777.9	659.0	589.6	639.8	749.6	792.0	790.9	701.7	649.2	720.7
51°	853.2	765.2	643.8	570.2	625.0	736.2	780.1	778.7	686.6	631.6	705.2
52°	841.5	752.1	628.6	554.0	610.1	724.8	767.9	766.6	671.7	614.0	689.8
53°	829.3	739.1	613.3	534.8	595.2	710.8	754.1	754.6	656.7	596.3	674.7
54°	817.1	725.3	598.2	518.2	580.6	699.0	742.5	741.8	641.8	578.6	659.4
55°	803.2	711.6	583.1	498.8	565.6	684.7	727.9	729.2	627.0	559.1	644.0
56°	790.2	697.1	567.7	480.8	550.9	671.1	714.2	716.5	611.9	541.2	628.9
57°	776.9	682.7	553.0	462.9	536.1	657.4	700.1	703.3	597.1	523.3	613.6
58°	762.8	667.6	537.9	444.9	521.3	643.1	685.1	690.1	582.1	505.3	598.6
59°	748.6	652.6	522.9	426.8	506.4	628.8	670.1	676.6	567.3	487.2	583.2
60°	733.8	636.7	507.7	408.8	491.5	613.7	654.3	662.9	552.6	469.3	567.9
61°	718.2	620.4	492.5	391.0	476.7	598.6	638.3	648.9	537.8	451.1	553.0
62°	702.5	603.8	477.3	372.8	460.1	583.0	621.5	633.1	523.0	433.1	537.9
63°	685.8	586.4	460.4	354.8	446.3	566.7	603.9	618.4	508.0	415.2	521.3
64°	668.6	568.8	446.3	336.8	429.9	550.0	586.1	603.2	493.2	396.9	507.7
65°	651.0	548.9	429.6	319.0	416.0	533.2	567.4	587.5	476.9	379.0	491.0
66°	632.6	531.9	413.7	301.2	398.9	515.8	549.5	571.1	463.1	360.8	477.0
67°	613.4	510.8	397.6	281.8	384.6	497.9	526.9	554.4	446.5	342.8	460.1
68°	593.8	492.7	381.2	265.6	367.3	479.1	502.2	537.7	432.8	324.9	445.9
69°	573.8	471.9	364.8	246.3	351.4	459.5	471.1	520.0	416.0	307.0	428.6
70°	554.6	451.4	348.0	230.4	335.4	439.0	443.1	502.2	400.5	289.2	414.2
71°	530.3	419.7	331.0	211.7	319.1	412.5	411.3	483.8	384.8	271.3	396.8
72°	494.8	390.4	313.9	196.0	302.6	385.2	386.3	465.2	369.0	253.5	380.0
73°	466.1	362.6	296.5	177.5	286.1	356.8	356.2	444.4	352.8	236.0	363.6
74°	433.7	334.2	279.0	162.2	269.5	330.2	330.8	420.5	336.8	208.1	346.9
75°	406.4	305.6	261.2	144.3	252.7	304.2	300.3	393.6	320.5	200.3	329.8
76°	373.4	277.2	243.0	128.4	235.4	277.7	274.7	365.1	304.1	181.6	312.5
77°	345.8	248.5	209.3	112.8	208.4	251.3	244.1	338.0	287.5	166.3	295.3
78°	312.4	220.1	200.0	98.0	195.1	224.4	207.8	309.7	270.9	148.5	277.9
79°	285.1	192.2	177.2	83.5	172.2	197.6	187.9	285.5	253.9	133.9	260.1
80°	252.7	164.4	153.9	69.8	150.3	171.3	160.8	256.5	236.7	116.8	242.2
81°	224.4	138.5	129.6	57.5	127.5	145.5	136.1	231.1	217.6	102.4	223.7
82°	196.3	110.5	107.0	44.0	105.9	118.1	109.5	204.9	196.4	88.3	198.7
83°	166.7	85.5	82.8	33.5	82.8	93.1	85.4	177.1	173.7	73.8	175.9
84°	140.2	59.5	60.6	24.2	61.4	67.0	60.0	151.1	150.1	61.2	151.1
85°	112.5	35.2	39.3	15.8	40.4	53.4	36.9	125.6	127.8	48.4	127.5
86°	87.5	13.8	18.1	9.3	19.5	19.9	15.1	99.1	105.3	37.6	104.0
87°	62.8	0.8	2.6	3.9	3.7	2.1	0.9	75.7	82.6	27.7	80.5
88°	38.5	0.0	0.0	0.0	0.0	0.0	0.0	50.4	60.4	19.2	57.8
89°	16.6	0.0	0.0	0.0	0.0	0.0	0.0	27.5	36.9	11.9	33.9



TEST NUMBER: A1708561A002(277V)

CATALOG NUMBER: 14RTC3440

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	1.2	0.0	0.0	0.0	0.0	0.0	0.0	8.9	17.1	6.5	14.0



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CATALOG NUMBER: 14RTC3440

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	1168.1	1168.1
1°	1167.7	1166.8
2°	1168.8	1167.9
3°	1169.5	1169.0
4°	1169.4	1169.2
5°	1169.1	1169.5
6°	1168.9	1169.2
7°	1167.6	1168.6
8°	1166.7	1167.8
9°	1164.9	1166.8
10°	1162.9	1165.2
11°	1160.4	1163.5
12°	1157.3	1161.0
13°	1154.3	1158.8
14°	1150.3	1155.6
15°	1146.6	1152.6
16°	1142.0	1148.9
17°	1137.7	1145.0
18°	1132.2	1140.9
19°	1126.6	1136.0
20°	1120.8	1131.2
21°	1114.6	1125.7
22°	1107.8	1120.0
23°	1101.2	1114.0
24°	1093.5	1107.6
25°	1085.9	1100.9
26°	1077.8	1094.0
27°	1069.2	1086.7
28°	1061.0	1079.3
29°	1051.8	1071.7
30°	1042.5	1063.5
31°	1033.0	1054.6
32°	1023.4	1046.8
33°	1013.2	1037.2
34°	1002.9	1029.1
35°	992.4	1019.1
36°	981.7	1010.5
37°	969.6	1000.0
38°	959.7	991.3
39°	947.8	980.7
40°	936.6	970.8
41°	925.0	960.9
42°	913.2	950.6
43°	901.8	940.5
44°	890.1	929.9



TEST NUMBER: A1708561A002(277V)

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CANDELA DISTRIBUTION (continued):

	330°	360°
45°	878.5	919.3
46°	866.6	908.9
47°	854.5	898.0
48°	842.5	887.2
49°	830.5	876.0
50°	817.9	864.6
51°	805.5	853.2
52°	793.4	841.5
53°	779.4	829.3
54°	767.9	817.1
55°	753.5	803.2
56°	741.5	790.2
57°	726.8	776.9
58°	714.2	762.8
59°	698.7	748.6
60°	684.1	733.8
61°	669.4	718.2
62°	654.1	702.5
63°	638.3	685.8
64°	622.0	668.6
65°	605.4	651.0
66°	588.1	632.6
67°	570.3	613.4
68°	552.1	593.8
69°	533.8	573.8
70°	514.2	554.6
71°	494.8	530.3
72°	475.6	494.8
73°	453.9	466.1
74°	425.7	433.7
75°	396.0	406.4
76°	368.1	373.4
77°	339.7	345.8
78°	309.0	312.4
79°	282.9	285.1
80°	251.9	252.7
81°	207.9	224.4
82°	196.8	196.3
83°	168.7	166.7
84°	142.2	140.2
85°	116.7	112.5
86°	90.0	87.5
87°	65.6	62.8
88°	42.0	38.5
89°	20.0	16.6



TEST NUMBER: A1708561A002(277V)

CATALOG NUMBER: 14RTC3440

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	3.6	1.2

(END OF REPORT)