

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P973019

Luminaire Tested: 22CGRK-L3C3-UNV-MP4-HI-3500K

Issue Date: 3/12/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( DLF2412105-2a)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/12/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22CGRK-L3C3-UNV-MP4-HI-3500K  
Description: 2x2 CGRK Backlit Panel Retrofit Kit at, HI lumen, 3500K CCT settings  
Light Source: -  
Ballast/Driver: -

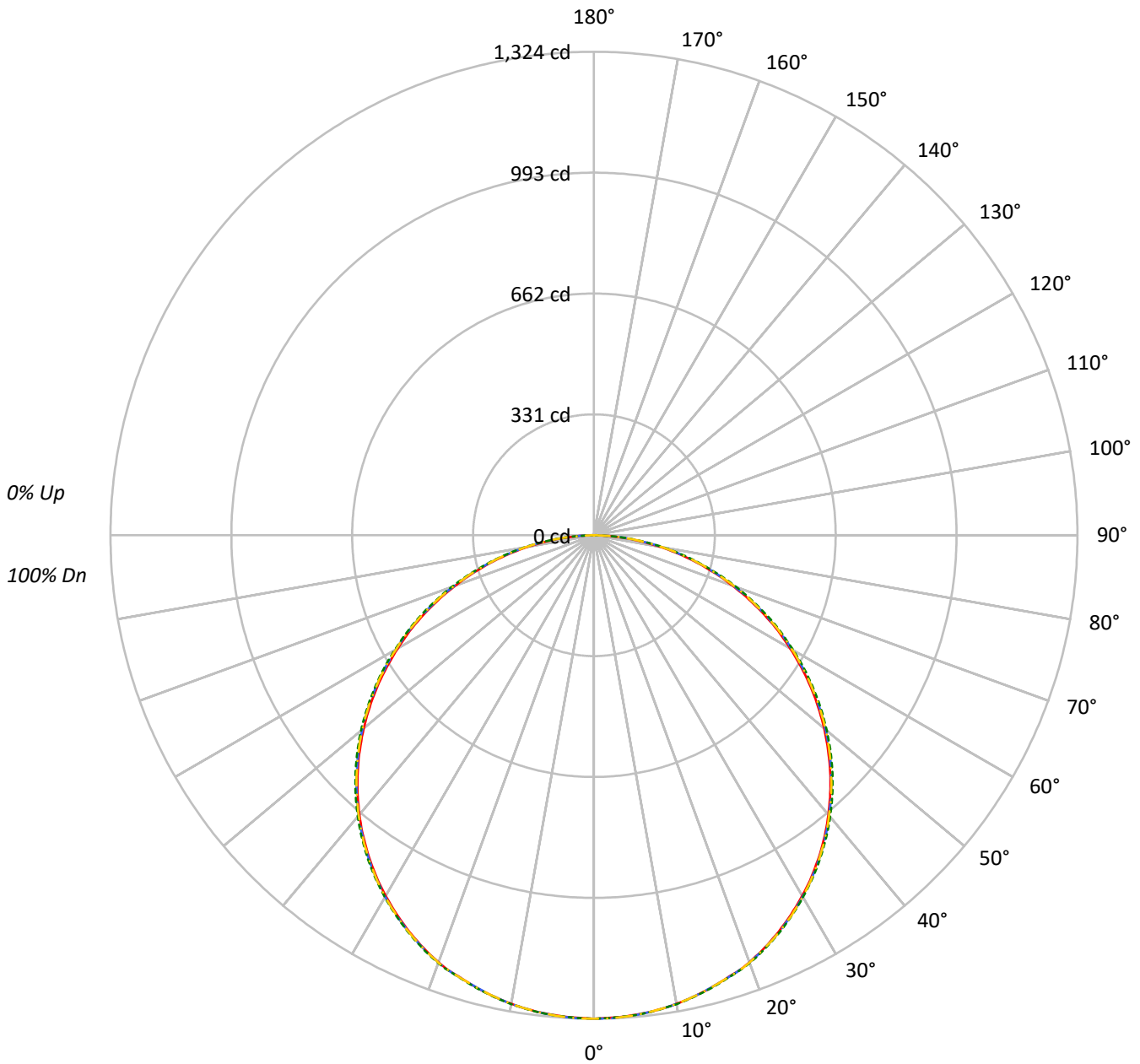
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4000.0 lumens  
Efficiency: N/A  
Efficacy: 139.9 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.6  
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: 24 FT

TEST NUMBER: P973019  
CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	85	85	85	83
2	98	90	82	77	95	88	81	76	84	79	74	81	76	72	78	74	70	70	70	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	60	68	64	59	59	59	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	51	51	51	48
5	75	62	53	46	73	61	52	45	58	51	45	56	50	44	55	49	44	44	44	44	42
6	69	55	46	40	67	55	46	40	53	45	39	51	44	39	49	43	38	38	38	38	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	34	34	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	30	30	30	29
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	27	27	27	26
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	25	25	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	4240	4240	4240	4240
5°	4238	4239	4238	4239
10°	4237	4240	4237	4240
15°	4234	4238	4234	4238
20°	4242	4250	4242	4250
25°	4231	4244	4231	4244
30°	4216	4233	4216	4233
35°	4201	4223	4201	4223
40°	4176	4207	4176	4207
45°	4143	4183	4143	4183
50°	4099	4149	4099	4149
55°	4044	4102	4044	4102
60°	3974	4042	3974	4042
65°	3896	3981	3896	3981
70°	3784	3884	3784	3884
75°	3638	3759	3638	3759
80°	3395	3589	3395	3589
85°	2954	3314	2954	3314

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4183 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.4	3.1
10°-20°	360.9	9.0
20°-30°	552.8	13.8
30°-40°	674.0	16.9
40°-50°	708.8	17.7
50°-60°	652.0	16.3
60°-70°	514.0	12.8
70°-80°	315.9	7.9
80°-90°	96.2	2.4
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°	1039.1	26.0
0°-40°	1713.1	42.8
0°-60°	3073.9	76.8
0°-90°	4000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4000.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1324	1324	1324	1324	1324	
5°	1318	1319	1318	1319	1318	125
15°	1277	1278	1277	1278	1277	361
25°	1197	1201	1197	1201	1197	552
35°	1074	1080	1074	1080	1074	672
45°	915	924	915	924	915	705
55°	724	735	724	735	724	647
65°	514	525	514	525	514	508
75°	294	304	294	304	294	310
85°	80	90	80	90	80	87
90°	0	0	0	0	0	5
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1
1°	1323.2	1324.2	1323.7	1324.0	1323.6	1323.9	1323.1	1323.9	1323.6	1324.0	1323.7
2°	1322.4	1323.5	1323.1	1323.6	1323.0	1322.9	1322.6	1322.9	1323.0	1323.6	1323.1
3°	1321.6	1322.1	1321.8	1322.5	1322.1	1322.1	1321.6	1322.1	1322.1	1322.5	1321.8
4°	1319.7	1321.0	1320.6	1320.8	1320.5	1320.2	1320.4	1320.2	1320.5	1320.8	1320.6
5°	1318.2	1319.1	1318.9	1318.9	1318.9	1318.6	1318.6	1318.6	1318.9	1318.9	1318.9
6°	1315.6	1316.7	1316.3	1316.3	1316.3	1316.4	1316.8	1316.4	1316.3	1316.3	1316.3
7°	1313.7	1313.9	1313.6	1313.5	1313.4	1313.8	1314.3	1313.8	1313.4	1313.5	1313.6
8°	1310.3	1310.6	1310.6	1310.5	1310.7	1310.7	1310.9	1310.7	1310.7	1310.5	1310.6
9°	1307.0	1306.9	1307.2	1307.1	1306.9	1307.1	1307.4	1307.1	1306.9	1307.1	1307.2
10°	1302.8	1303.2	1302.7	1302.7	1303.0	1303.6	1303.9	1303.6	1303.0	1302.7	1302.7
11°	1298.7	1297.9	1298.2	1298.5	1298.4	1298.9	1299.0	1298.9	1298.4	1298.5	1298.2
12°	1293.7	1293.2	1293.5	1293.6	1293.7	1294.5	1294.9	1294.5	1293.7	1293.6	1293.5
13°	1288.7	1288.3	1288.2	1288.3	1288.9	1289.1	1289.5	1289.1	1288.9	1288.3	1288.2
14°	1283.0	1282.7	1282.6	1282.8	1283.2	1283.4	1284.1	1283.4	1283.2	1282.8	1282.6
15°	1276.9	1276.4	1276.7	1276.7	1277.5	1277.7	1278.4	1277.7	1277.5	1276.7	1276.7
16°	1270.9	1270.0	1270.3	1270.9	1271.3	1271.4	1272.0	1271.4	1271.3	1270.9	1270.3
17°	1264.3	1264.5	1264.4	1265.0	1264.3	1265.3	1265.4	1265.3	1264.3	1265.0	1264.4
18°	1259.0	1258.8	1258.9	1259.2	1259.3	1259.6	1259.6	1259.6	1259.3	1259.2	1258.9
19°	1253.0	1252.1	1252.9	1253.4	1253.5	1253.8	1254.0	1253.8	1253.5	1253.4	1252.9
20°	1244.7	1244.1	1244.8	1245.4	1245.9	1246.6	1247.0	1246.6	1245.9	1245.4	1244.8
21°	1235.8	1235.4	1236.1	1237.0	1237.8	1238.0	1238.3	1238.0	1237.8	1237.0	1236.1
22°	1226.9	1226.5	1227.3	1227.8	1228.7	1229.2	1229.7	1229.2	1228.7	1227.8	1227.3
23°	1217.7	1217.4	1217.8	1218.7	1219.8	1220.4	1220.3	1220.4	1219.8	1218.7	1217.8
24°	1207.2	1207.5	1208.0	1209.4	1210.0	1210.6	1211.0	1210.6	1210.0	1209.4	1208.0
25°	1197.4	1197.2	1198.0	1199.3	1199.9	1201.0	1201.0	1201.0	1199.9	1199.3	1198.0
26°	1186.5	1186.9	1187.5	1188.7	1189.9	1190.4	1190.4	1190.4	1189.9	1188.7	1187.5
27°	1175.8	1175.8	1176.9	1178.1	1178.9	1179.6	1179.5	1179.6	1178.9	1178.1	1176.9
28°	1164.1	1164.7	1165.8	1166.8	1167.9	1168.4	1168.4	1168.4	1167.9	1166.8	1165.8
29°	1152.2	1152.7	1154.0	1155.1	1156.4	1156.8	1156.8	1156.8	1156.4	1155.1	1154.0
30°	1140.2	1140.9	1142.0	1143.2	1144.4	1145.0	1144.7	1145.0	1144.4	1143.2	1142.0
31°	1128.2	1128.3	1129.3	1130.8	1131.8	1132.6	1132.7	1132.6	1131.8	1130.8	1129.3
32°	1115.5	1115.8	1116.8	1118.1	1119.2	1120.0	1120.0	1120.0	1119.2	1118.1	1116.8
33°	1102.2	1102.3	1103.5	1104.6	1106.0	1107.0	1107.3	1107.0	1106.0	1104.6	1103.5
34°	1088.3	1089.0	1089.8	1091.1	1092.7	1093.6	1093.8	1093.6	1092.7	1091.1	1089.8
35°	1074.5	1074.9	1075.9	1077.4	1078.8	1079.9	1080.3	1079.9	1078.8	1077.4	1075.9
36°	1060.1	1060.8	1061.5	1062.9	1064.7	1065.9	1066.3	1065.9	1064.7	1062.9	1061.5
37°	1045.2	1045.8	1046.9	1048.4	1050.1	1051.2	1051.6	1051.2	1050.1	1048.4	1046.9
38°	1030.5	1030.7	1031.9	1033.2	1035.2	1036.2	1037.1	1036.2	1035.2	1033.2	1031.9
39°	1014.8	1015.4	1016.6	1017.9	1020.1	1021.4	1021.9	1021.4	1020.1	1017.9	1016.6
40°	998.8	999.5	1001.0	1002.0	1004.5	1005.6	1006.4	1005.6	1004.5	1002.0	1001.0
41°	982.6	983.3	984.4	986.1	988.7	989.5	990.2	989.5	988.7	986.1	984.4
42°	966.1	967.1	968.4	969.9	972.3	973.3	974.5	973.3	972.3	969.9	968.4
43°	949.3	950.1	951.5	953.1	955.5	956.6	957.9	956.6	955.5	953.1	951.5
44°	932.1	933.0	934.7	936.1	938.7	939.7	940.6	939.7	938.7	936.1	934.7



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	914.7	915.6	917.1	918.8	921.4	922.6	923.7	922.6	921.4	918.8	917.1
46°	897.3	897.8	899.4	901.0	903.8	905.1	905.9	905.1	903.8	901.0	899.4
47°	878.6	879.5	881.3	883.4	885.8	887.0	888.0	887.0	885.8	883.4	881.3
48°	860.2	861.1	863.2	865.1	867.8	868.9	870.1	868.9	867.8	865.1	863.2
49°	841.6	842.3	844.5	846.8	849.1	850.3	851.5	850.3	849.1	846.8	844.5
50°	822.8	823.4	825.6	828.0	830.4	831.8	832.7	831.8	830.4	828.0	825.6
51°	803.5	804.3	806.4	808.9	811.1	812.9	813.5	812.9	811.1	808.9	806.4
52°	784.0	784.8	786.8	789.7	792.0	793.4	794.1	793.4	792.0	789.7	786.8
53°	764.7	765.0	767.3	770.3	772.2	774.0	774.7	774.0	772.2	770.3	767.3
54°	744.4	745.3	747.3	750.1	752.4	754.3	754.6	754.3	752.4	750.1	747.3
55°	724.3	725.0	727.3	730.3	732.3	734.3	734.6	734.3	732.3	730.3	727.3
56°	704.1	704.6	706.6	710.0	712.2	713.9	714.2	713.9	712.2	710.0	706.6
57°	683.2	683.9	686.2	689.3	691.5	693.5	694.1	693.5	691.5	689.3	686.2
58°	662.4	663.2	665.6	668.7	670.7	672.8	673.3	672.8	670.7	668.7	665.6
59°	641.7	642.3	644.3	647.6	649.7	651.7	652.3	651.7	649.7	647.6	644.3
60°	620.4	621.1	623.3	626.4	628.8	630.7	631.1	630.7	628.8	626.4	623.3
61°	599.9	600.5	602.7	606.8	607.4	609.4	608.7	609.4	607.4	606.8	602.7
62°	579.3	580.0	581.9	585.0	587.1	589.4	589.4	589.4	587.1	585.0	581.9
63°	558.1	558.7	560.9	563.7	566.3	568.3	569.0	568.3	566.3	563.7	560.9
64°	536.1	537.1	539.3	542.1	544.7	546.7	547.4	546.7	544.7	542.1	539.3
65°	514.2	515.3	517.3	520.1	522.9	524.7	525.3	524.7	522.9	520.1	517.3
66°	492.4	493.2	495.4	498.1	500.8	502.7	503.5	502.7	500.8	498.1	495.4
67°	470.4	471.3	473.3	476.1	478.8	480.7	481.5	480.7	478.8	476.1	473.3
68°	448.4	449.2	451.2	453.9	456.7	458.5	459.2	458.5	456.7	453.9	451.2
69°	426.2	427.1	429.1	431.8	434.5	436.2	437.2	436.2	434.5	431.8	429.1
70°	404.1	404.9	406.9	409.8	412.3	414.0	414.8	414.0	412.3	409.8	406.9
71°	382.0	382.8	384.8	387.5	390.1	391.9	392.8	391.9	390.1	387.5	384.8
72°	360.1	360.7	362.8	365.4	368.0	369.5	370.5	369.5	368.0	365.4	362.8
73°	337.9	338.6	340.7	343.2	345.8	347.4	347.9	347.4	345.8	343.2	340.7
74°	315.8	316.6	318.8	321.4	323.7	325.4	326.0	325.4	323.7	321.4	318.8
75°	294.0	294.8	296.9	299.4	301.7	303.3	303.8	303.3	301.7	299.4	296.9
76°	272.1	272.8	275.1	277.5	279.8	281.3	281.8	281.3	279.8	277.5	275.1
77°	250.2	251.1	253.3	255.8	258.1	259.5	259.9	259.5	258.1	255.8	253.3
78°	228.2	229.2	231.6	234.3	236.3	237.7	237.7	237.7	236.3	234.3	231.6
79°	206.0	207.2	210.1	212.7	214.6	216.0	216.3	216.0	214.6	212.7	210.1
80°	184.1	185.2	188.3	191.4	193.3	194.5	194.6	194.5	193.3	191.4	188.3
81°	162.6	163.7	166.5	170.1	172.1	173.2	173.2	173.2	172.1	170.1	166.5
82°	141.4	142.3	145.1	148.7	151.1	152.1	152.3	152.1	151.1	148.7	145.1
83°	120.3	121.2	123.6	127.1	130.0	131.2	131.2	131.2	130.0	127.1	123.6
84°	100.1	100.9	102.9	106.1	109.4	110.8	110.8	110.8	109.4	106.1	102.9
85°	80.4	81.0	82.9	85.6	88.9	90.5	90.2	90.5	88.9	85.6	82.9
86°	61.3	61.8	63.6	65.8	68.2	69.7	69.3	69.7	68.2	65.8	63.6
87°	43.5	44.0	45.3	46.5	47.7	49.2	49.0	49.2	47.7	46.5	45.3
88°	27.5	27.8	28.5	29.4	29.2	30.7	30.4	30.7	29.2	29.4	28.5
89°	13.2	13.4	13.5	14.0	12.8	13.4	13.3	13.4	12.8	14.0	13.5



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P973019  
 CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P973019  
CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P973019  
 CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1	1324.1
1°	1324.2	1323.2	1324.2	1323.7	1324.0	1323.6	1323.9	1323.1	1323.9	1323.6	1324.0
2°	1323.5	1322.4	1323.5	1323.1	1323.6	1323.0	1322.9	1322.6	1322.9	1323.0	1323.6
3°	1322.1	1321.6	1322.1	1321.8	1322.5	1322.1	1322.1	1321.6	1322.1	1322.1	1322.5
4°	1321.0	1319.7	1321.0	1320.6	1320.8	1320.5	1320.2	1320.4	1320.2	1320.5	1320.8
5°	1319.1	1318.2	1319.1	1318.9	1318.9	1318.9	1318.6	1318.6	1318.6	1318.9	1318.9
6°	1316.7	1315.6	1316.7	1316.3	1316.3	1316.3	1316.4	1316.8	1316.4	1316.3	1316.3
7°	1313.9	1313.7	1313.9	1313.6	1313.5	1313.4	1313.8	1314.3	1313.8	1313.4	1313.5
8°	1310.6	1310.3	1310.6	1310.6	1310.5	1310.7	1310.7	1310.9	1310.7	1310.7	1310.5
9°	1306.9	1307.0	1306.9	1307.2	1307.1	1306.9	1307.1	1307.4	1307.1	1306.9	1307.1
10°	1303.2	1302.8	1303.2	1302.7	1302.7	1303.0	1303.6	1303.9	1303.6	1303.0	1302.7
11°	1297.9	1298.7	1297.9	1298.2	1298.5	1298.4	1298.9	1299.0	1298.9	1298.4	1298.5
12°	1293.2	1293.7	1293.2	1293.5	1293.6	1293.7	1294.5	1294.9	1294.5	1293.7	1293.6
13°	1288.3	1288.7	1288.3	1288.2	1288.3	1288.9	1289.1	1289.5	1289.1	1288.9	1288.3
14°	1282.7	1283.0	1282.7	1282.6	1282.8	1283.2	1283.4	1284.1	1283.4	1283.2	1282.8
15°	1276.4	1276.9	1276.4	1276.7	1276.7	1277.5	1277.7	1278.4	1277.7	1277.5	1276.7
16°	1270.0	1270.9	1270.0	1270.3	1270.9	1271.3	1271.4	1272.0	1271.4	1271.3	1270.9
17°	1264.5	1264.3	1264.5	1264.4	1265.0	1264.3	1265.3	1265.4	1265.3	1264.3	1265.0
18°	1258.8	1259.0	1258.8	1258.9	1259.2	1259.3	1259.6	1259.6	1259.6	1259.3	1259.2
19°	1252.1	1253.0	1252.1	1252.9	1253.4	1253.5	1253.8	1254.0	1253.8	1253.5	1253.4
20°	1244.1	1244.7	1244.1	1244.8	1245.4	1245.9	1246.6	1247.0	1246.6	1245.9	1245.4
21°	1235.4	1235.8	1235.4	1236.1	1237.0	1237.8	1238.0	1238.3	1238.0	1237.8	1237.0
22°	1226.5	1226.9	1226.5	1227.3	1227.8	1228.7	1229.2	1229.7	1229.2	1228.7	1227.8
23°	1217.4	1217.7	1217.4	1217.8	1218.7	1219.8	1220.4	1220.3	1220.4	1219.8	1218.7
24°	1207.5	1207.2	1207.5	1208.0	1209.4	1210.0	1210.6	1211.0	1210.6	1210.0	1209.4
25°	1197.2	1197.4	1197.2	1198.0	1199.3	1199.9	1201.0	1201.0	1201.0	1199.9	1199.3
26°	1186.9	1186.5	1186.9	1187.5	1188.7	1189.9	1190.4	1190.4	1190.4	1189.9	1188.7
27°	1175.8	1175.8	1175.8	1176.9	1178.1	1178.9	1179.6	1179.5	1179.6	1178.9	1178.1
28°	1164.7	1164.1	1164.7	1165.8	1166.8	1167.9	1168.4	1168.4	1168.4	1167.9	1166.8
29°	1152.7	1152.2	1152.7	1154.0	1155.1	1156.4	1156.8	1156.8	1156.8	1156.4	1155.1
30°	1140.9	1140.2	1140.9	1142.0	1143.2	1144.4	1145.0	1144.7	1145.0	1144.4	1143.2
31°	1128.3	1128.2	1128.3	1129.3	1130.8	1131.8	1132.6	1132.7	1132.6	1131.8	1130.8
32°	1115.8	1115.5	1115.8	1116.8	1118.1	1119.2	1120.0	1120.0	1120.0	1119.2	1118.1
33°	1102.3	1102.2	1102.3	1103.5	1104.6	1106.0	1107.0	1107.3	1107.0	1106.0	1104.6
34°	1089.0	1088.3	1089.0	1089.8	1091.1	1092.7	1093.6	1093.8	1093.6	1092.7	1091.1
35°	1074.9	1074.5	1074.9	1075.9	1077.4	1078.8	1079.9	1080.3	1079.9	1078.8	1077.4
36°	1060.8	1060.1	1060.8	1061.5	1062.9	1064.7	1065.9	1066.3	1065.9	1064.7	1062.9
37°	1045.8	1045.2	1045.8	1046.9	1048.4	1050.1	1051.2	1051.6	1051.2	1050.1	1048.4
38°	1030.7	1030.5	1030.7	1031.9	1033.2	1035.2	1036.2	1037.1	1036.2	1035.2	1033.2
39°	1015.4	1014.8	1015.4	1016.6	1017.9	1020.1	1021.4	1021.9	1021.4	1020.1	1017.9
40°	999.5	998.8	999.5	1001.0	1002.0	1004.5	1005.6	1006.4	1005.6	1004.5	1002.0
41°	983.3	982.6	983.3	984.4	986.1	988.7	989.5	990.2	989.5	988.7	986.1
42°	967.1	966.1	967.1	968.4	969.9	972.3	973.3	974.5	973.3	972.3	969.9
43°	950.1	949.3	950.1	951.5	953.1	955.5	956.6	957.9	956.6	955.5	953.1
44°	933.0	932.1	933.0	934.7	936.1	938.7	939.7	940.6	939.7	938.7	936.1



TEST NUMBER: P973019  
 CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	915.6	914.7	915.6	917.1	918.8	921.4	922.6	923.7	922.6	921.4	918.8
46°	897.8	897.3	897.8	899.4	901.0	903.8	905.1	905.9	905.1	903.8	901.0
47°	879.5	878.6	879.5	881.3	883.4	885.8	887.0	888.0	887.0	885.8	883.4
48°	861.1	860.2	861.1	863.2	865.1	867.8	868.9	870.1	868.9	867.8	865.1
49°	842.3	841.6	842.3	844.5	846.8	849.1	850.3	851.5	850.3	849.1	846.8
50°	823.4	822.8	823.4	825.6	828.0	830.4	831.8	832.7	831.8	830.4	828.0
51°	804.3	803.5	804.3	806.4	808.9	811.1	812.9	813.5	812.9	811.1	808.9
52°	784.8	784.0	784.8	786.8	789.7	792.0	793.4	794.1	793.4	792.0	789.7
53°	765.0	764.7	765.0	767.3	770.3	772.2	774.0	774.7	774.0	772.2	770.3
54°	745.3	744.4	745.3	747.3	750.1	752.4	754.3	754.6	754.3	752.4	750.1
55°	725.0	724.3	725.0	727.3	730.3	732.3	734.3	734.6	734.3	732.3	730.3
56°	704.6	704.1	704.6	706.6	710.0	712.2	713.9	714.2	713.9	712.2	710.0
57°	683.9	683.2	683.9	686.2	689.3	691.5	693.5	694.1	693.5	691.5	689.3
58°	663.2	662.4	663.2	665.6	668.7	670.7	672.8	673.3	672.8	670.7	668.7
59°	642.3	641.7	642.3	644.3	647.6	649.7	651.7	652.3	651.7	649.7	647.6
60°	621.1	620.4	621.1	623.3	626.4	628.8	630.7	631.1	630.7	628.8	626.4
61°	600.5	599.9	600.5	602.7	606.8	607.4	609.4	608.7	609.4	607.4	606.8
62°	580.0	579.3	580.0	581.9	585.0	587.1	589.4	589.4	589.4	587.1	585.0
63°	558.7	558.1	558.7	560.9	563.7	566.3	568.3	569.0	568.3	566.3	563.7
64°	537.1	536.1	537.1	539.3	542.1	544.7	546.7	547.4	546.7	544.7	542.1
65°	515.3	514.2	515.3	517.3	520.1	522.9	524.7	525.3	524.7	522.9	520.1
66°	493.2	492.4	493.2	495.4	498.1	500.8	502.7	503.5	502.7	500.8	498.1
67°	471.3	470.4	471.3	473.3	476.1	478.8	480.7	481.5	480.7	478.8	476.1
68°	449.2	448.4	449.2	451.2	453.9	456.7	458.5	459.2	458.5	456.7	453.9
69°	427.1	426.2	427.1	429.1	431.8	434.5	436.2	437.2	436.2	434.5	431.8
70°	404.9	404.1	404.9	406.9	409.8	412.3	414.0	414.8	414.0	412.3	409.8
71°	382.8	382.0	382.8	384.8	387.5	390.1	391.9	392.8	391.9	390.1	387.5
72°	360.7	360.1	360.7	362.8	365.4	368.0	369.5	370.5	369.5	368.0	365.4
73°	338.6	337.9	338.6	340.7	343.2	345.8	347.4	347.9	347.4	345.8	343.2
74°	316.6	315.8	316.6	318.8	321.4	323.7	325.4	326.0	325.4	323.7	321.4
75°	294.8	294.0	294.8	296.9	299.4	301.7	303.3	303.8	303.3	301.7	299.4
76°	272.8	272.1	272.8	275.1	277.5	279.8	281.3	281.8	281.3	279.8	277.5
77°	251.1	250.2	251.1	253.3	255.8	258.1	259.5	259.9	259.5	258.1	255.8
78°	229.2	228.2	229.2	231.6	234.3	236.3	237.7	237.7	237.7	236.3	234.3
79°	207.2	206.0	207.2	210.1	212.7	214.6	216.0	216.3	216.0	214.6	212.7
80°	185.2	184.1	185.2	188.3	191.4	193.3	194.5	194.6	194.5	193.3	191.4
81°	163.7	162.6	163.7	166.5	170.1	172.1	173.2	173.2	173.2	172.1	170.1
82°	142.3	141.4	142.3	145.1	148.7	151.1	152.1	152.3	152.1	151.1	148.7
83°	121.2	120.3	121.2	123.6	127.1	130.0	131.2	131.2	131.2	130.0	127.1
84°	100.9	100.1	100.9	102.9	106.1	109.4	110.8	110.8	110.8	109.4	106.1
85°	81.0	80.4	81.0	82.9	85.6	88.9	90.5	90.2	90.5	88.9	85.6
86°	61.8	61.3	61.8	63.6	65.8	68.2	69.7	69.3	69.7	68.2	65.8
87°	44.0	43.5	44.0	45.3	46.5	47.7	49.2	49.0	49.2	47.7	46.5
88°	27.8	27.5	27.8	28.5	29.4	29.2	30.7	30.4	30.7	29.2	29.4
89°	13.4	13.2	13.4	13.5	14.0	12.8	13.4	13.3	13.4	12.8	14.0



TEST NUMBER: P973019  
 CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P973019  
 CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P973019  
CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P973019  
CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	1324.1	1324.1	1324.1
1°	1323.7	1324.2	1323.2
2°	1323.1	1323.5	1322.4
3°	1321.8	1322.1	1321.6
4°	1320.6	1321.0	1319.7
5°	1318.9	1319.1	1318.2
6°	1316.3	1316.7	1315.6
7°	1313.6	1313.9	1313.7
8°	1310.6	1310.6	1310.3
9°	1307.2	1306.9	1307.0
10°	1302.7	1303.2	1302.8
11°	1298.2	1297.9	1298.7
12°	1293.5	1293.2	1293.7
13°	1288.2	1288.3	1288.7
14°	1282.6	1282.7	1283.0
15°	1276.7	1276.4	1276.9
16°	1270.3	1270.0	1270.9
17°	1264.4	1264.5	1264.3
18°	1258.9	1258.8	1259.0
19°	1252.9	1252.1	1253.0
20°	1244.8	1244.1	1244.7
21°	1236.1	1235.4	1235.8
22°	1227.3	1226.5	1226.9
23°	1217.8	1217.4	1217.7
24°	1208.0	1207.5	1207.2
25°	1198.0	1197.2	1197.4
26°	1187.5	1186.9	1186.5
27°	1176.9	1175.8	1175.8
28°	1165.8	1164.7	1164.1
29°	1154.0	1152.7	1152.2
30°	1142.0	1140.9	1140.2
31°	1129.3	1128.3	1128.2
32°	1116.8	1115.8	1115.5
33°	1103.5	1102.3	1102.2
34°	1089.8	1089.0	1088.3
35°	1075.9	1074.9	1074.5
36°	1061.5	1060.8	1060.1
37°	1046.9	1045.8	1045.2
38°	1031.9	1030.7	1030.5
39°	1016.6	1015.4	1014.8
40°	1001.0	999.5	998.8
41°	984.4	983.3	982.6
42°	968.4	967.1	966.1
43°	951.5	950.1	949.3
44°	934.7	933.0	932.1





TEST NUMBER: P973019

CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	917.1	915.6	914.7
46°	899.4	897.8	897.3
47°	881.3	879.5	878.6
48°	863.2	861.1	860.2
49°	844.5	842.3	841.6
50°	825.6	823.4	822.8
51°	806.4	804.3	803.5
52°	786.8	784.8	784.0
53°	767.3	765.0	764.7
54°	747.3	745.3	744.4
55°	727.3	725.0	724.3
56°	706.6	704.6	704.1
57°	686.2	683.9	683.2
58°	665.6	663.2	662.4
59°	644.3	642.3	641.7
60°	623.3	621.1	620.4
61°	602.7	600.5	599.9
62°	581.9	580.0	579.3
63°	560.9	558.7	558.1
64°	539.3	537.1	536.1
65°	517.3	515.3	514.2
66°	495.4	493.2	492.4
67°	473.3	471.3	470.4
68°	451.2	449.2	448.4
69°	429.1	427.1	426.2
70°	406.9	404.9	404.1
71°	384.8	382.8	382.0
72°	362.8	360.7	360.1
73°	340.7	338.6	337.9
74°	318.8	316.6	315.8
75°	296.9	294.8	294.0
76°	275.1	272.8	272.1
77°	253.3	251.1	250.2
78°	231.6	229.2	228.2
79°	210.1	207.2	206.0
80°	188.3	185.2	184.1
81°	166.5	163.7	162.6
82°	145.1	142.3	141.4
83°	123.6	121.2	120.3
84°	102.9	100.9	100.1
85°	82.9	81.0	80.4
86°	63.6	61.8	61.3
87°	45.3	44.0	43.5
88°	28.5	27.8	27.5
89°	13.5	13.4	13.2



TEST NUMBER: P973019  
CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
90°	0.0	0.0	0.0
91°	0.0	0.0	0.0
92°	0.0	0.0	0.0
93°	0.0	0.0	0.0
94°	0.0	0.0	0.0
95°	0.0	0.0	0.0
96°	0.0	0.0	0.0
97°	0.0	0.0	0.0
98°	0.0	0.0	0.0
99°	0.0	0.0	0.0
100°	0.0	0.0	0.0
101°	0.0	0.0	0.0
102°	0.0	0.0	0.0
103°	0.0	0.0	0.0
104°	0.0	0.0	0.0
105°	0.0	0.0	0.0
106°	0.0	0.0	0.0
107°	0.0	0.0	0.0
108°	0.0	0.0	0.0
109°	0.0	0.0	0.0
110°	0.0	0.0	0.0
111°	0.0	0.0	0.0
112°	0.0	0.0	0.0
113°	0.0	0.0	0.0
114°	0.0	0.0	0.0
115°	0.0	0.0	0.0
116°	0.0	0.0	0.0
117°	0.0	0.0	0.0
118°	0.0	0.0	0.0
119°	0.0	0.0	0.0
120°	0.0	0.0	0.0
121°	0.0	0.0	0.0
122°	0.0	0.0	0.0
123°	0.0	0.0	0.0
124°	0.0	0.0	0.0
125°	0.0	0.0	0.0
126°	0.0	0.0	0.0
127°	0.0	0.0	0.0
128°	0.0	0.0	0.0
129°	0.0	0.0	0.0
130°	0.0	0.0	0.0
131°	0.0	0.0	0.0
132°	0.0	0.0	0.0
133°	0.0	0.0	0.0
134°	0.0	0.0	0.0



TEST NUMBER: P973019  
CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
135°	0.0	0.0	0.0
136°	0.0	0.0	0.0
137°	0.0	0.0	0.0
138°	0.0	0.0	0.0
139°	0.0	0.0	0.0
140°	0.0	0.0	0.0
141°	0.0	0.0	0.0
142°	0.0	0.0	0.0
143°	0.0	0.0	0.0
144°	0.0	0.0	0.0
145°	0.0	0.0	0.0
146°	0.0	0.0	0.0
147°	0.0	0.0	0.0
148°	0.0	0.0	0.0
149°	0.0	0.0	0.0
150°	0.0	0.0	0.0
151°	0.0	0.0	0.0
152°	0.0	0.0	0.0
153°	0.0	0.0	0.0
154°	0.0	0.0	0.0
155°	0.0	0.0	0.0
156°	0.0	0.0	0.0
157°	0.0	0.0	0.0
158°	0.0	0.0	0.0
159°	0.0	0.0	0.0
160°	0.0	0.0	0.0
161°	0.0	0.0	0.0
162°	0.0	0.0	0.0
163°	0.0	0.0	0.0
164°	0.0	0.0	0.0
165°	0.0	0.0	0.0
166°	0.0	0.0	0.0
167°	0.0	0.0	0.0
168°	0.0	0.0	0.0
169°	0.0	0.0	0.0
170°	0.0	0.0	0.0
171°	0.0	0.0	0.0
172°	0.0	0.0	0.0
173°	0.0	0.0	0.0
174°	0.0	0.0	0.0
175°	0.0	0.0	0.0
176°	0.0	0.0	0.0
177°	0.0	0.0	0.0
178°	0.0	0.0	0.0
179°	0.0	0.0	0.0



TEST NUMBER: P973019  
CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
180°	0.0	0.0	0.0



TEST NUMBER: P973019  
 CATALOG NUMBER: 22CGRK-L3C3-UNV-MP4-HI-3500K

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.03	18.70	17.40	19.02	19.33	17.12	18.79	17.49	19.11	19.42
	3H	18.98	20.49	19.35	20.82	21.18	19.09	20.61	19.47	20.93	21.29
	4H	19.74	21.17	20.14	21.51	21.89	19.87	21.30	20.27	21.65	22.02
	6H	20.33	21.66	20.74	22.02	22.41	20.49	21.82	20.90	22.18	22.57
	8H	20.53	21.80	20.95	22.18	22.58	20.71	21.98	21.14	22.37	22.77
	12H	20.62	21.84	21.05	22.22	22.65	20.82	22.04	21.25	22.42	22.85
4H	2H	17.73	19.15	18.12	19.50	19.88	17.79	19.22	18.19	19.57	19.95
	3H	19.89	21.10	20.30	21.49	21.89	19.99	21.20	20.40	21.59	21.99
	4H	20.79	21.89	21.22	22.30	22.73	20.91	22.01	21.35	22.42	22.85
	6H	21.52	22.48	21.98	22.92	23.37	21.68	22.64	22.13	23.07	23.53
	8H	21.77	22.67	22.23	23.11	23.58	21.96	22.85	22.41	23.29	23.76
	12H	21.93	22.74	22.41	23.21	23.68	22.14	22.95	22.62	23.42	23.89
8H	4H	21.17	22.07	21.63	22.51	22.97	21.27	22.17	21.73	22.61	23.08
	6H	22.04	22.79	22.53	23.27	23.75	22.18	22.93	22.67	23.42	23.89
	8H	22.37	23.04	22.88	23.55	24.03	22.55	23.22	23.05	23.72	24.21
	12H	22.61	23.21	23.12	23.70	24.26	22.83	23.42	23.33	23.91	24.47
12H	4H	21.22	22.03	21.70	22.50	22.97	21.32	22.13	21.80	22.60	23.07
	6H	22.12	22.80	22.63	23.30	23.78	22.26	22.93	22.76	23.43	23.92
	8H	22.52	23.12	23.03	23.61	24.16	22.69	23.28	23.19	23.77	24.33