

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: HALO COMMERCIAL

Report Number: P776011

Luminaire Tested: HCDJBL51525CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776011
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B009)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL51525CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K
Description: 4 INCH SQUARE MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2177.1 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.14 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

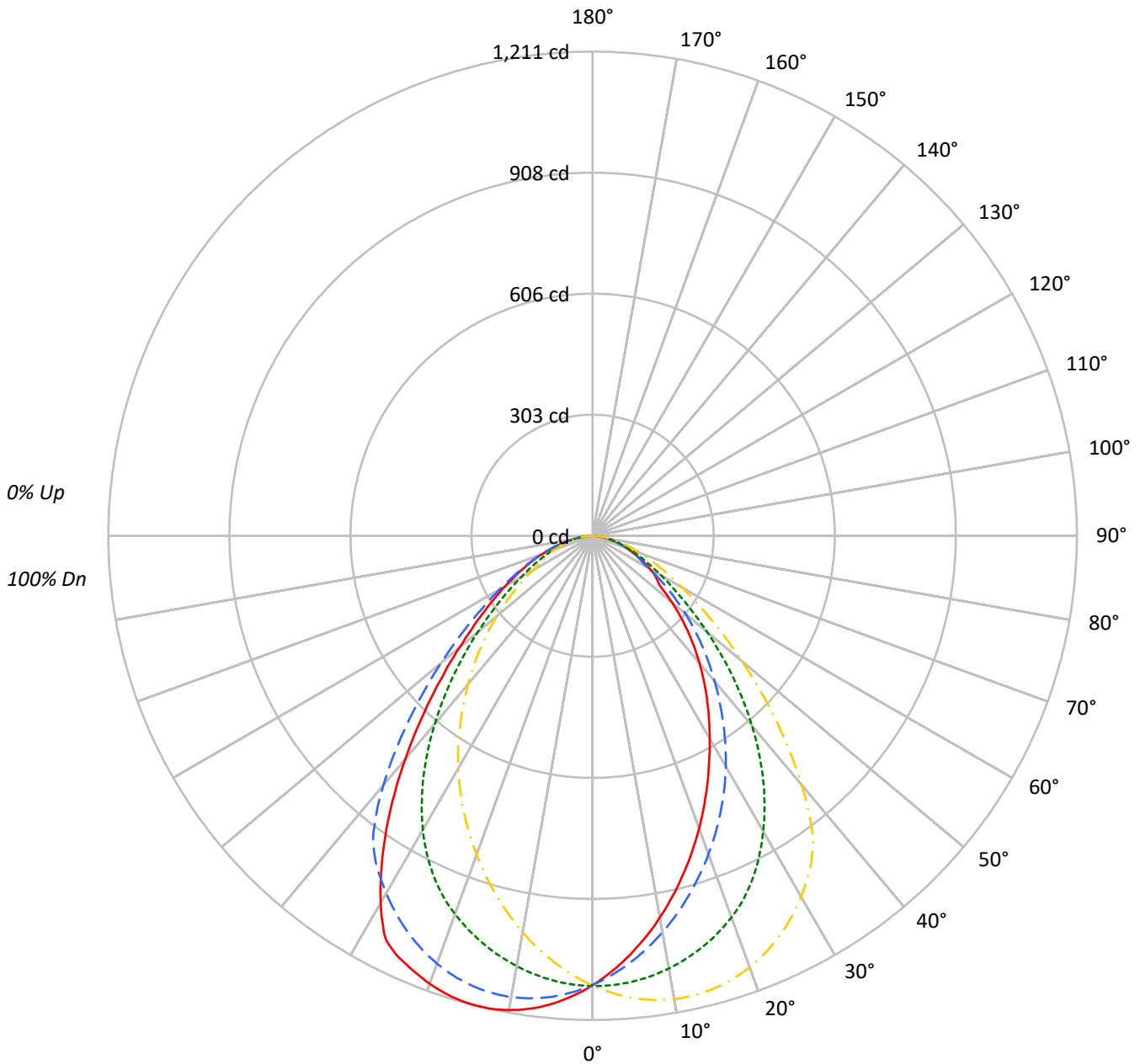
Input Watts (W): 25
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL51525CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL51525CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

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 | 100 | | | | | | | | |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 98 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 88 | | | | | | | | |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 | | | | | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 73 | 69 | 76 | 72 | 68 | 66 | | | | | | | | |
| 4 | 87 | 77 | 69 | 63 | 85 | 75 | 68 | 63 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | 58 | | | | | | | | |
| 5 | 81 | 70 | 62 | 56 | 79 | 68 | 61 | 55 | 66 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 54 | 52 | | | | | | | | |
| 6 | 75 | 63 | 55 | 50 | 74 | 62 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 52 | 48 | 46 | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 69 | 57 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 43 | 42 | | | | | | | | |
| 8 | 66 | 53 | 46 | 40 | 64 | 53 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 49 | 44 | 39 | 38 | | | | | | | | |
| 9 | 62 | 49 | 42 | 37 | 60 | 49 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | | | | |
| 10 | 58 | 46 | 38 | 34 | 57 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 37 | 33 | 43 | 37 | 33 | 32 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 141493 | 141493 | 141493 | 141493 |
| 5° | 133114 | 141478 | 148502 | 141099 |
| 10° | 123855 | 140430 | 153937 | 139701 |
| 15° | 114120 | 138641 | 157624 | 137572 |
| 20° | 104262 | 136029 | 159640 | 134797 |
| 25° | 94383 | 131403 | 160828 | 130501 |
| 30° | 85099 | 124015 | 153980 | 123405 |
| 35° | 76541 | 114181 | 138286 | 113351 |
| 40° | 68261 | 101808 | 119583 | 100871 |
| 45° | 59747 | 87708 | 101110 | 87174 |
| 50° | 50729 | 72970 | 85207 | 73459 |
| 55° | 43839 | 59834 | 72889 | 61414 |
| 60° | 41707 | 49685 | 63529 | 51976 |
| 65° | 37372 | 41928 | 56192 | 44876 |
| 70° | 33448 | 36097 | 49527 | 39372 |
| 75° | 29564 | 31120 | 42498 | 34815 |
| 80° | 23264 | 25946 | 32903 | 30439 |
| 85° | 11407 | 18916 | 15739 | 24981 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 225°
 Vertical Angle: 45°
 Luminance: 115259 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 105.7 | 4.9 |
| 10°-20° | 295.7 | 13.6 |
| 20°-30° | 427.1 | 19.6 |
| 30°-40° | 459.4 | 21.1 |
| 40°-50° | 381.3 | 17.5 |
| 50°-60° | 256.5 | 11.8 |
| 60°-70° | 155.3 | 7.1 |
| 70°-80° | 78.5 | 3.6 |
| 80°-90° | 17.6 | 0.8 |
| 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° | 828.5 | 38.1 |
| 0°-40° | 1287.9 | 59.2 |
| 0°-60° | 1925.8 | 88.5 |
| 0°-90° | 2177.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2177.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1124 | 1124 | 1124 | 1124 | 1124 | |
| 5° | 1054 | 1120 | 1176 | 1117 | 1054 | 98 |
| 15° | 876 | 1064 | 1210 | 1056 | 876 | 245 |
| 25° | 680 | 946 | 1158 | 940 | 680 | 312 |
| 35° | 498 | 743 | 900 | 738 | 498 | 311 |
| 45° | 336 | 493 | 568 | 490 | 336 | 259 |
| 55° | 200 | 273 | 332 | 280 | 200 | 183 |
| 65° | 126 | 141 | 189 | 151 | 126 | 125 |
| 75° | 61 | 64 | 87 | 72 | 61 | 64 |
| 85° | 8 | 13 | 11 | 17 | 8 | 12 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL5125CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 |
| 0.5° | 1117.7 | 1117.7 | 1118.9 | 1121.4 | 1126.1 | 1127.8 | 1129.3 | 1130.0 | 1130.0 | 1129.0 | 1127.6 |
| 1° | 1111.3 | 1111.8 | 1114.5 | 1118.9 | 1126.1 | 1130.0 | 1133.5 | 1135.5 | 1136.0 | 1134.5 | 1131.5 |
| 1.5° | 1104.6 | 1105.6 | 1109.8 | 1116.2 | 1125.8 | 1132.0 | 1137.4 | 1140.6 | 1141.6 | 1139.4 | 1135.2 |
| 2° | 1097.9 | 1099.4 | 1104.8 | 1113.2 | 1125.3 | 1134.0 | 1141.1 | 1145.8 | 1147.1 | 1144.4 | 1139.2 |
| 2.5° | 1090.8 | 1092.7 | 1099.6 | 1110.3 | 1124.8 | 1135.7 | 1144.8 | 1150.5 | 1152.3 | 1149.3 | 1142.6 |
| 3° | 1083.8 | 1086.3 | 1094.7 | 1107.1 | 1124.1 | 1137.4 | 1148.3 | 1155.2 | 1157.4 | 1153.7 | 1145.8 |
| 3.5° | 1076.4 | 1079.4 | 1089.3 | 1103.8 | 1123.4 | 1138.7 | 1151.5 | 1159.9 | 1162.1 | 1158.2 | 1149.0 |
| 4° | 1069.0 | 1072.7 | 1083.6 | 1100.4 | 1122.1 | 1140.2 | 1154.7 | 1164.1 | 1166.8 | 1162.4 | 1152.0 |
| 4.5° | 1061.4 | 1065.3 | 1077.9 | 1096.7 | 1121.1 | 1141.1 | 1157.7 | 1168.1 | 1171.3 | 1166.3 | 1154.5 |
| 5° | 1053.7 | 1058.4 | 1072.2 | 1093.0 | 1119.9 | 1142.1 | 1160.4 | 1172.0 | 1175.5 | 1170.0 | 1157.2 |
| 5.5° | 1045.6 | 1051.0 | 1066.1 | 1089.0 | 1118.4 | 1142.9 | 1162.9 | 1175.7 | 1179.4 | 1173.5 | 1159.4 |
| 6° | 1037.7 | 1043.3 | 1060.1 | 1085.1 | 1116.9 | 1143.6 | 1165.1 | 1179.2 | 1183.1 | 1177.0 | 1161.6 |
| 6.5° | 1029.7 | 1035.4 | 1054.0 | 1080.9 | 1115.2 | 1143.9 | 1167.3 | 1182.1 | 1186.6 | 1179.9 | 1163.6 |
| 7° | 1021.3 | 1028.0 | 1047.5 | 1076.9 | 1113.2 | 1144.1 | 1169.3 | 1185.1 | 1190.0 | 1182.6 | 1165.3 |
| 7.5° | 1012.7 | 1019.9 | 1040.9 | 1072.2 | 1111.3 | 1144.1 | 1171.0 | 1187.8 | 1193.0 | 1185.4 | 1166.8 |
| 8° | 1004.6 | 1012.0 | 1034.4 | 1067.8 | 1109.0 | 1144.1 | 1172.5 | 1190.5 | 1195.7 | 1187.8 | 1168.1 |
| 8.5° | 995.9 | 1003.8 | 1027.8 | 1063.1 | 1106.6 | 1143.9 | 1173.7 | 1192.8 | 1198.4 | 1189.8 | 1169.1 |
| 9° | 987.0 | 995.7 | 1020.9 | 1058.4 | 1104.1 | 1143.4 | 1175.0 | 1194.7 | 1200.7 | 1191.8 | 1170.0 |
| 9.5° | 978.1 | 987.0 | 1013.7 | 1053.2 | 1101.6 | 1142.6 | 1176.0 | 1196.5 | 1202.6 | 1193.5 | 1170.8 |
| 10° | 969.2 | 978.6 | 1006.8 | 1048.3 | 1098.9 | 1141.9 | 1176.7 | 1198.2 | 1204.6 | 1195.0 | 1171.3 |
| 10.5° | 960.1 | 970.2 | 999.6 | 1043.1 | 1095.9 | 1140.9 | 1177.2 | 1199.7 | 1206.1 | 1196.2 | 1171.8 |
| 11° | 951.2 | 961.6 | 992.4 | 1037.9 | 1093.0 | 1139.9 | 1177.5 | 1200.7 | 1207.6 | 1197.2 | 1171.8 |
| 11.5° | 942.1 | 952.9 | 985.0 | 1032.2 | 1089.8 | 1138.7 | 1177.5 | 1201.7 | 1208.6 | 1198.0 | 1171.5 |
| 12° | 932.4 | 944.3 | 977.4 | 1026.8 | 1086.6 | 1137.2 | 1177.5 | 1202.4 | 1209.6 | 1198.4 | 1171.3 |
| 12.5° | 923.3 | 935.1 | 970.0 | 1021.1 | 1083.1 | 1135.7 | 1177.2 | 1202.6 | 1210.3 | 1198.9 | 1170.8 |
| 13° | 914.2 | 926.3 | 962.3 | 1015.4 | 1079.6 | 1134.0 | 1176.5 | 1202.9 | 1210.6 | 1198.9 | 1170.0 |
| 13.5° | 904.5 | 917.4 | 954.7 | 1009.7 | 1075.9 | 1132.0 | 1175.7 | 1202.9 | 1210.8 | 1198.7 | 1169.1 |
| 14° | 895.1 | 908.5 | 946.5 | 1003.8 | 1072.2 | 1129.8 | 1174.7 | 1202.6 | 1210.8 | 1198.2 | 1167.8 |
| 14.5° | 885.5 | 899.3 | 938.6 | 997.6 | 1068.3 | 1127.8 | 1173.7 | 1202.2 | 1210.3 | 1197.5 | 1166.3 |
| 15° | 875.9 | 889.7 | 930.7 | 991.5 | 1064.1 | 1125.3 | 1172.3 | 1201.4 | 1209.8 | 1196.7 | 1164.9 |
| 15.5° | 866.2 | 880.6 | 922.8 | 985.3 | 1059.9 | 1122.9 | 1170.8 | 1200.4 | 1209.1 | 1195.7 | 1163.1 |
| 16° | 856.6 | 871.4 | 914.6 | 979.1 | 1055.7 | 1119.9 | 1169.1 | 1199.2 | 1208.1 | 1194.5 | 1161.2 |
| 16.5° | 847.2 | 862.0 | 906.2 | 972.7 | 1051.2 | 1117.2 | 1167.1 | 1198.0 | 1206.8 | 1193.0 | 1158.9 |
| 17° | 837.3 | 852.9 | 898.1 | 966.0 | 1046.5 | 1114.0 | 1165.1 | 1196.5 | 1205.4 | 1191.0 | 1156.7 |
| 17.5° | 827.7 | 843.0 | 889.7 | 959.4 | 1041.6 | 1110.8 | 1162.6 | 1194.5 | 1203.6 | 1189.1 | 1154.0 |
| 18° | 817.8 | 833.6 | 881.5 | 952.7 | 1036.7 | 1107.1 | 1160.2 | 1192.3 | 1201.7 | 1186.8 | 1151.3 |
| 18.5° | 808.2 | 824.2 | 873.1 | 945.8 | 1031.7 | 1103.6 | 1157.4 | 1190.0 | 1199.4 | 1184.4 | 1148.3 |
| 19° | 798.3 | 814.6 | 864.5 | 938.6 | 1026.5 | 1099.9 | 1154.5 | 1187.6 | 1197.2 | 1181.9 | 1145.3 |
| 19.5° | 788.2 | 805.0 | 856.1 | 931.7 | 1021.1 | 1095.7 | 1151.3 | 1184.9 | 1194.7 | 1178.9 | 1142.1 |
| 20° | 778.5 | 795.6 | 847.2 | 924.5 | 1015.7 | 1091.7 | 1148.1 | 1181.9 | 1192.0 | 1176.0 | 1138.7 |
| 20.5° | 768.7 | 786.0 | 838.8 | 917.1 | 1010.0 | 1087.3 | 1144.6 | 1178.7 | 1189.1 | 1172.8 | 1134.7 |
| 21° | 758.8 | 776.3 | 830.2 | 909.7 | 1004.1 | 1082.9 | 1140.9 | 1175.5 | 1186.1 | 1169.3 | 1131.0 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL5125CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 729.1 | 747.4 | 803.7 | 887.0 | 984.5 | 1068.3 | 1128.8 | 1164.4 | 1176.0 | 1157.9 | 1118.2 |
| 23° | 719.0 | 737.5 | 794.6 | 878.8 | 977.6 | 1062.6 | 1124.3 | 1160.4 | 1172.5 | 1154.0 | 1113.7 |
| 23.5° | 709.4 | 728.2 | 786.0 | 870.9 | 970.0 | 1056.9 | 1119.7 | 1156.2 | 1168.8 | 1149.8 | 1109.0 |
| 24° | 699.5 | 718.3 | 776.8 | 862.0 | 962.3 | 1050.7 | 1114.5 | 1152.3 | 1165.3 | 1145.6 | 1104.1 |
| 24.5° | 689.4 | 708.6 | 767.9 | 853.6 | 954.4 | 1044.1 | 1109.5 | 1147.8 | 1161.9 | 1140.9 | 1098.9 |
| 25° | 679.7 | 699.0 | 758.5 | 844.7 | 946.3 | 1037.2 | 1104.3 | 1143.4 | 1158.2 | 1136.5 | 1093.7 |
| 25.5° | 670.1 | 689.1 | 749.6 | 835.9 | 938.1 | 1030.0 | 1099.2 | 1139.2 | 1153.2 | 1132.0 | 1088.0 |
| 26° | 660.5 | 679.5 | 740.5 | 826.5 | 929.5 | 1022.8 | 1093.5 | 1135.0 | 1147.8 | 1127.8 | 1082.6 |
| 26.5° | 650.8 | 670.1 | 731.4 | 817.6 | 920.6 | 1014.9 | 1087.8 | 1130.5 | 1142.1 | 1123.1 | 1076.7 |
| 27° | 641.2 | 660.2 | 722.2 | 808.2 | 911.4 | 1006.8 | 1081.9 | 1125.8 | 1136.2 | 1118.4 | 1070.7 |
| 27.5° | 631.8 | 650.8 | 713.1 | 798.8 | 902.0 | 998.6 | 1075.9 | 1119.7 | 1126.8 | 1112.2 | 1064.8 |
| 28° | 622.2 | 641.2 | 703.7 | 789.2 | 892.7 | 990.0 | 1069.8 | 1113.5 | 1114.0 | 1105.8 | 1058.6 |
| 28.5° | 613.1 | 631.8 | 694.6 | 779.5 | 883.0 | 981.1 | 1063.3 | 1107.3 | 1100.9 | 1099.4 | 1052.2 |
| 29° | 603.9 | 622.2 | 684.9 | 769.7 | 873.4 | 971.9 | 1056.7 | 1100.4 | 1088.8 | 1092.5 | 1045.6 |
| 29.5° | 594.5 | 613.3 | 675.5 | 760.0 | 863.3 | 962.3 | 1049.8 | 1089.8 | 1074.2 | 1081.9 | 1038.9 |
| 30° | 585.6 | 604.2 | 665.9 | 749.9 | 853.4 | 952.4 | 1042.8 | 1076.4 | 1059.6 | 1069.0 | 1032.2 |
| 30.5° | 576.5 | 594.8 | 656.3 | 740.0 | 842.8 | 942.8 | 1035.4 | 1063.6 | 1045.1 | 1055.9 | 1025.3 |
| 31° | 567.6 | 584.9 | 646.6 | 729.9 | 832.6 | 932.9 | 1027.8 | 1051.2 | 1030.2 | 1043.3 | 1018.4 |
| 31.5° | 558.7 | 576.5 | 636.8 | 719.8 | 821.8 | 922.3 | 1019.9 | 1036.7 | 1013.9 | 1029.3 | 1011.2 |
| 32° | 549.8 | 567.4 | 627.1 | 709.6 | 811.2 | 911.9 | 1012.2 | 1022.1 | 998.4 | 1014.9 | 1004.1 |
| 32.5° | 541.2 | 558.7 | 617.5 | 699.5 | 800.3 | 901.1 | 1004.6 | 1007.3 | 982.8 | 1000.8 | 996.9 |
| 33° | 532.5 | 549.8 | 607.9 | 689.1 | 789.2 | 890.2 | 996.4 | 992.9 | 966.5 | 986.0 | 989.5 |
| 33.5° | 523.9 | 541.2 | 598.2 | 679.0 | 777.6 | 879.1 | 988.0 | 977.4 | 950.0 | 971.2 | 981.8 |
| 34° | 515.5 | 532.5 | 588.4 | 668.4 | 766.7 | 867.7 | 979.1 | 962.1 | 933.2 | 955.4 | 973.2 |
| 34.5° | 506.6 | 523.6 | 578.5 | 658.0 | 754.8 | 855.6 | 969.2 | 946.0 | 916.6 | 940.3 | 963.8 |
| 35° | 498.2 | 514.5 | 568.8 | 647.4 | 743.2 | 844.2 | 959.4 | 930.7 | 900.1 | 924.8 | 953.9 |
| 35.5° | 489.8 | 506.6 | 559.2 | 637.0 | 731.4 | 831.9 | 948.7 | 914.4 | 883.0 | 909.5 | 944.3 |
| 36° | 481.7 | 498.0 | 549.8 | 626.4 | 719.0 | 819.8 | 937.9 | 898.3 | 865.7 | 893.4 | 934.2 |
| 36.5° | 473.3 | 489.6 | 539.9 | 616.0 | 706.9 | 807.4 | 924.5 | 881.8 | 849.2 | 877.3 | 921.8 |
| 37° | 464.9 | 481.2 | 530.6 | 605.4 | 695.1 | 794.6 | 909.0 | 865.7 | 831.9 | 861.8 | 906.7 |
| 37.5° | 456.5 | 472.5 | 520.9 | 594.5 | 682.5 | 781.5 | 893.4 | 849.2 | 814.4 | 845.7 | 892.2 |
| 38° | 448.1 | 464.1 | 511.5 | 583.9 | 669.9 | 768.4 | 878.3 | 832.6 | 796.6 | 829.4 | 877.3 |
| 38.5° | 439.9 | 455.7 | 502.4 | 573.0 | 657.3 | 755.3 | 862.8 | 815.3 | 780.3 | 812.9 | 862.5 |
| 39° | 432.0 | 447.6 | 493.0 | 562.4 | 644.9 | 742.0 | 846.2 | 799.8 | 763.2 | 797.3 | 846.2 |
| 39.5° | 423.6 | 439.4 | 483.6 | 551.6 | 632.3 | 728.4 | 829.7 | 782.7 | 745.7 | 781.3 | 830.2 |
| 40° | 415.5 | 430.8 | 474.5 | 540.7 | 619.7 | 714.6 | 813.1 | 765.7 | 727.9 | 764.7 | 813.6 |
| 40.5° | 407.3 | 422.6 | 465.3 | 530.1 | 606.6 | 701.0 | 796.6 | 748.9 | 712.6 | 747.9 | 797.3 |
| 41° | 399.2 | 414.5 | 456.5 | 519.2 | 594.0 | 687.2 | 779.5 | 733.3 | 696.0 | 732.9 | 781.0 |
| 41.5° | 391.2 | 406.3 | 447.3 | 508.6 | 581.2 | 673.3 | 762.7 | 716.8 | 678.5 | 716.8 | 763.7 |
| 42° | 383.1 | 398.2 | 438.4 | 497.7 | 568.6 | 659.5 | 745.7 | 699.5 | 662.5 | 700.0 | 747.2 |
| 42.5° | 375.2 | 390.0 | 429.5 | 487.3 | 556.0 | 645.2 | 729.1 | 683.9 | 647.1 | 684.7 | 730.1 |
| 43° | 367.3 | 381.9 | 420.6 | 476.7 | 543.2 | 631.3 | 712.4 | 668.4 | 631.1 | 669.4 | 713.8 |
| 43.5° | 359.1 | 374.0 | 411.8 | 466.1 | 530.3 | 617.3 | 695.6 | 651.6 | 613.3 | 653.3 | 696.8 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL51525CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 335.7 | 350.0 | 385.8 | 434.7 | 492.8 | 575.0 | 645.4 | 605.4 | 568.1 | 608.4 | 647.6 |
| 45.5° | 327.8 | 342.1 | 377.2 | 424.3 | 480.2 | 561.2 | 628.4 | 588.4 | 553.5 | 592.1 | 631.3 |
| 46° | 320.4 | 334.4 | 368.8 | 414.2 | 467.8 | 547.4 | 611.8 | 573.8 | 540.4 | 576.7 | 615.0 |
| 46.5° | 312.2 | 326.5 | 360.1 | 403.8 | 455.5 | 533.3 | 596.0 | 560.0 | 525.6 | 564.1 | 599.7 |
| 47° | 304.6 | 318.6 | 351.7 | 394.0 | 443.1 | 519.4 | 580.0 | 544.4 | 509.6 | 549.3 | 583.7 |
| 47.5° | 296.9 | 310.7 | 343.1 | 383.8 | 431.0 | 505.6 | 563.7 | 528.1 | 498.2 | 533.3 | 568.1 |
| 48° | 289.5 | 303.1 | 335.2 | 374.0 | 418.9 | 492.0 | 547.4 | 516.0 | 485.9 | 520.7 | 552.5 |
| 48.5° | 281.6 | 295.2 | 326.8 | 364.1 | 407.3 | 478.7 | 532.8 | 502.2 | 471.3 | 508.1 | 538.5 |
| 49° | 274.2 | 287.8 | 318.6 | 354.7 | 395.7 | 465.3 | 517.7 | 486.6 | 458.4 | 493.5 | 523.4 |
| 49.5° | 266.8 | 280.1 | 310.5 | 345.1 | 384.3 | 452.3 | 502.2 | 473.0 | 447.6 | 479.2 | 508.6 |
| 50° | 259.1 | 272.4 | 302.3 | 335.4 | 372.7 | 438.7 | 487.1 | 460.9 | 435.2 | 467.8 | 493.8 |
| 50.5° | 251.4 | 264.8 | 294.4 | 326.0 | 361.9 | 426.1 | 473.5 | 447.3 | 421.4 | 455.2 | 480.9 |
| 51° | 244.3 | 257.4 | 286.5 | 317.1 | 351.0 | 413.0 | 458.9 | 432.7 | 412.0 | 440.2 | 466.8 |
| 51.5° | 236.9 | 250.0 | 278.6 | 308.0 | 340.6 | 400.9 | 444.6 | 422.6 | 401.9 | 430.0 | 453.0 |
| 52° | 229.7 | 242.6 | 271.0 | 299.1 | 330.0 | 388.0 | 432.0 | 410.8 | 388.8 | 418.7 | 439.7 |
| 52.5° | 222.5 | 235.1 | 263.3 | 290.5 | 319.6 | 376.2 | 418.9 | 396.7 | 379.4 | 405.8 | 428.3 |
| 53° | 215.9 | 227.7 | 255.9 | 281.8 | 309.7 | 363.8 | 405.1 | 386.6 | 370.3 | 393.7 | 414.5 |
| 53.5° | 209.5 | 220.6 | 248.2 | 273.4 | 300.4 | 352.2 | 392.5 | 376.4 | 359.6 | 384.3 | 401.6 |
| 54° | 205.5 | 213.7 | 240.8 | 265.0 | 290.7 | 340.4 | 380.6 | 364.6 | 349.3 | 373.0 | 390.3 |
| 54.5° | 202.8 | 206.7 | 233.7 | 256.9 | 281.6 | 329.0 | 368.5 | 353.7 | 341.4 | 360.9 | 379.1 |
| 55° | 199.8 | 200.3 | 226.5 | 249.2 | 272.7 | 318.1 | 356.2 | 344.8 | 332.2 | 352.5 | 366.8 |
| 55.5° | 197.1 | 194.1 | 219.6 | 241.6 | 264.0 | 307.0 | 345.8 | 334.7 | 322.1 | 342.8 | 355.7 |
| 56° | 193.9 | 190.9 | 212.4 | 234.2 | 255.6 | 296.6 | 334.4 | 324.1 | 314.9 | 331.2 | 345.3 |
| 56.5° | 190.7 | 188.2 | 205.5 | 226.7 | 247.5 | 286.8 | 323.1 | 315.9 | 306.8 | 323.1 | 334.4 |
| 57° | 187.7 | 185.3 | 198.8 | 219.6 | 239.3 | 276.9 | 313.2 | 306.8 | 297.4 | 314.7 | 323.6 |
| 57.5° | 184.3 | 182.3 | 192.2 | 212.4 | 231.9 | 267.3 | 303.3 | 296.9 | 290.7 | 304.6 | 314.7 |
| 58° | 181.1 | 179.1 | 186.0 | 205.8 | 224.3 | 258.4 | 292.7 | 289.7 | 283.3 | 296.4 | 304.6 |
| 58.5° | 177.3 | 176.1 | 179.6 | 199.3 | 217.4 | 249.5 | 283.8 | 281.6 | 274.7 | 289.0 | 294.7 |
| 59° | 173.4 | 172.7 | 173.4 | 192.9 | 210.7 | 241.1 | 274.7 | 272.2 | 267.5 | 280.1 | 286.0 |
| 59.5° | 169.7 | 169.4 | 167.2 | 186.5 | 204.0 | 232.7 | 265.3 | 265.5 | 259.8 | 272.2 | 277.1 |
| 60° | 165.7 | 166.0 | 161.5 | 180.6 | 197.4 | 224.8 | 256.9 | 258.1 | 252.4 | 265.3 | 267.7 |
| 60.5° | 161.5 | 162.3 | 155.6 | 174.4 | 190.7 | 217.1 | 248.7 | 249.7 | 245.5 | 256.9 | 259.8 |
| 61° | 157.6 | 158.6 | 150.2 | 168.9 | 184.0 | 210.0 | 240.1 | 243.3 | 238.4 | 249.5 | 251.9 |
| 61.5° | 153.6 | 154.9 | 145.5 | 163.3 | 178.1 | 203.0 | 232.7 | 235.9 | 231.7 | 242.6 | 243.5 |
| 62° | 149.4 | 150.9 | 140.8 | 157.8 | 172.4 | 195.9 | 225.3 | 228.2 | 225.0 | 234.9 | 236.1 |
| 62.5° | 145.5 | 147.0 | 138.1 | 152.6 | 166.7 | 188.7 | 217.4 | 221.8 | 218.8 | 228.2 | 229.0 |
| 63° | 141.5 | 143.3 | 135.1 | 147.5 | 161.0 | 182.5 | 210.7 | 215.1 | 212.9 | 221.8 | 221.1 |
| 63.5° | 137.6 | 139.3 | 132.4 | 142.5 | 155.9 | 176.4 | 204.0 | 208.5 | 206.7 | 214.4 | 214.6 |
| 64° | 133.4 | 135.6 | 129.7 | 137.8 | 150.7 | 170.4 | 197.6 | 202.0 | 200.8 | 208.2 | 208.2 |
| 64.5° | 129.4 | 131.7 | 126.7 | 132.9 | 145.5 | 164.5 | 190.9 | 195.6 | 194.6 | 202.0 | 201.6 |
| 65° | 125.5 | 127.9 | 123.7 | 128.4 | 140.8 | 159.1 | 184.3 | 189.2 | 188.7 | 195.9 | 195.1 |
| 65.5° | 121.5 | 124.0 | 120.8 | 124.2 | 135.9 | 153.6 | 178.1 | 184.0 | 182.8 | 189.7 | 188.5 |
| 66° | 117.6 | 120.3 | 117.8 | 119.8 | 131.2 | 148.2 | 172.2 | 177.6 | 177.1 | 183.8 | 182.3 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL5125CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 67.5° | 107.2 | 108.9 | 108.2 | 107.7 | 118.1 | 133.1 | 154.6 | 161.0 | 160.6 | 166.7 | 164.7 |
| 68° | 103.7 | 105.5 | 104.7 | 104.0 | 113.9 | 128.4 | 149.2 | 155.6 | 155.4 | 161.0 | 159.1 |
| 68.5° | 100.5 | 102.0 | 101.5 | 100.3 | 109.7 | 124.0 | 143.8 | 150.2 | 149.9 | 155.6 | 153.4 |
| 69° | 97.3 | 98.6 | 98.6 | 96.6 | 105.7 | 119.5 | 138.3 | 145.0 | 145.0 | 150.2 | 148.0 |
| 69.5° | 94.1 | 95.3 | 95.3 | 93.1 | 101.8 | 114.9 | 133.4 | 139.8 | 139.8 | 145.0 | 142.5 |
| 70° | 90.9 | 92.1 | 91.9 | 89.9 | 98.1 | 110.7 | 128.2 | 134.6 | 134.6 | 139.8 | 137.6 |
| 70.5° | 87.9 | 88.4 | 88.9 | 86.7 | 94.1 | 106.5 | 123.3 | 129.9 | 129.9 | 134.6 | 132.4 |
| 71° | 85.0 | 85.7 | 86.0 | 83.7 | 90.6 | 102.5 | 118.6 | 124.7 | 125.0 | 129.9 | 127.5 |
| 71.5° | 82.0 | 82.7 | 82.7 | 80.5 | 86.9 | 98.3 | 113.6 | 120.0 | 120.0 | 124.7 | 122.5 |
| 72° | 78.8 | 79.8 | 79.5 | 77.6 | 83.5 | 94.4 | 108.9 | 115.1 | 115.1 | 119.8 | 117.8 |
| 72.5° | 75.8 | 76.8 | 76.6 | 74.3 | 80.0 | 90.6 | 104.5 | 110.4 | 110.4 | 114.9 | 112.9 |
| 73° | 72.9 | 73.9 | 73.4 | 71.6 | 76.8 | 86.7 | 100.0 | 106.0 | 105.7 | 110.4 | 108.4 |
| 73.5° | 69.7 | 70.9 | 70.4 | 68.9 | 73.4 | 83.0 | 95.6 | 101.3 | 101.0 | 105.5 | 103.7 |
| 74° | 66.7 | 67.7 | 67.2 | 66.4 | 70.1 | 79.5 | 91.1 | 96.6 | 96.3 | 100.8 | 99.3 |
| 74.5° | 63.7 | 64.7 | 64.5 | 64.2 | 66.9 | 75.8 | 86.9 | 92.1 | 91.9 | 96.3 | 94.8 |
| 75° | 60.8 | 61.8 | 61.8 | 61.8 | 64.0 | 72.4 | 82.7 | 87.9 | 87.4 | 91.9 | 90.6 |
| 75.5° | 57.8 | 58.8 | 58.8 | 59.3 | 60.8 | 69.2 | 78.5 | 83.5 | 83.0 | 87.2 | 86.2 |
| 76° | 54.8 | 55.8 | 55.8 | 56.6 | 57.8 | 65.7 | 74.8 | 79.0 | 78.5 | 83.0 | 82.0 |
| 76.5° | 51.9 | 52.9 | 53.1 | 54.1 | 54.8 | 62.2 | 70.6 | 74.6 | 74.1 | 78.5 | 77.8 |
| 77° | 49.2 | 49.9 | 50.4 | 51.6 | 52.1 | 59.0 | 66.9 | 70.6 | 70.1 | 74.3 | 73.9 |
| 77.5° | 46.2 | 46.9 | 47.7 | 48.9 | 49.2 | 55.8 | 63.0 | 66.4 | 65.7 | 69.9 | 69.9 |
| 78° | 43.5 | 44.0 | 45.0 | 46.4 | 46.4 | 52.6 | 59.3 | 62.5 | 61.5 | 65.9 | 65.9 |
| 78.5° | 40.5 | 41.2 | 42.2 | 44.0 | 43.7 | 49.4 | 55.6 | 58.3 | 57.6 | 61.8 | 62.2 |
| 79° | 37.8 | 38.3 | 39.8 | 41.2 | 41.0 | 46.4 | 52.1 | 54.3 | 53.4 | 57.6 | 58.3 |
| 79.5° | 34.8 | 35.3 | 37.1 | 38.8 | 38.5 | 43.5 | 48.7 | 50.1 | 49.4 | 53.6 | 54.6 |
| 80° | 32.1 | 32.4 | 34.3 | 36.3 | 35.8 | 40.5 | 45.2 | 46.2 | 45.4 | 49.6 | 51.1 |
| 80.5° | 29.4 | 29.6 | 31.9 | 33.8 | 33.3 | 37.5 | 41.7 | 42.5 | 41.5 | 45.7 | 47.4 |
| 81° | 26.7 | 26.7 | 29.4 | 31.4 | 30.9 | 34.8 | 38.5 | 38.5 | 37.5 | 41.7 | 44.0 |
| 81.5° | 24.0 | 24.0 | 26.9 | 28.9 | 28.7 | 32.1 | 35.3 | 34.8 | 33.8 | 38.0 | 40.8 |
| 82° | 21.2 | 21.2 | 24.7 | 26.7 | 26.2 | 29.4 | 32.1 | 31.6 | 30.1 | 34.3 | 37.3 |
| 82.5° | 18.5 | 19.0 | 22.2 | 24.2 | 24.0 | 26.9 | 29.1 | 28.2 | 26.7 | 30.9 | 34.3 |
| 83° | 16.1 | 16.5 | 20.0 | 22.0 | 21.7 | 24.2 | 26.4 | 25.2 | 23.2 | 27.4 | 31.1 |
| 83.5° | 13.3 | 14.3 | 18.0 | 19.8 | 19.5 | 22.0 | 23.7 | 22.5 | 19.8 | 24.7 | 28.2 |
| 84° | 10.9 | 12.4 | 15.8 | 17.3 | 17.3 | 19.5 | 21.2 | 19.5 | 16.3 | 21.7 | 25.4 |
| 84.5° | 8.9 | 10.4 | 13.8 | 15.1 | 15.1 | 17.0 | 18.5 | 16.5 | 12.8 | 19.0 | 23.0 |
| 85° | 7.9 | 8.9 | 11.9 | 12.8 | 13.1 | 14.6 | 16.1 | 13.6 | 10.9 | 16.3 | 20.3 |
| 85.5° | 6.7 | 7.7 | 9.9 | 10.6 | 10.9 | 12.1 | 13.3 | 11.6 | 9.4 | 13.3 | 17.8 |
| 86° | 5.4 | 6.2 | 8.2 | 8.4 | 8.9 | 9.9 | 11.1 | 9.6 | 7.9 | 11.4 | 15.1 |
| 86.5° | 4.4 | 4.9 | 6.2 | 6.4 | 6.9 | 7.7 | 8.6 | 7.9 | 6.7 | 9.6 | 12.6 |
| 87° | 3.2 | 3.5 | 4.4 | 4.4 | 4.9 | 5.4 | 6.4 | 5.9 | 5.2 | 7.9 | 10.1 |
| 87.5° | 2.2 | 2.2 | 2.5 | 2.7 | 3.0 | 3.5 | 4.2 | 4.2 | 4.0 | 5.9 | 7.9 |
| 88° | 1.2 | 1.0 | 1.0 | 0.7 | 1.2 | 1.7 | 2.2 | 2.7 | 2.7 | 4.2 | 5.7 |
| 88.5° | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5 | 0.7 | 1.2 | 1.2 | 2.5 | 3.5 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL51525CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL5125CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 | 1124.3 |
| 0.5° | 1126.1 | 1125.6 | 1122.9 | 1120.4 | 1118.7 | 1117.7 |
| 1° | 1128.1 | 1125.3 | 1120.1 | 1115.7 | 1112.7 | 1111.3 |
| 1.5° | 1130.0 | 1124.8 | 1117.4 | 1110.8 | 1106.6 | 1104.6 |
| 2° | 1131.8 | 1124.1 | 1114.2 | 1106.1 | 1100.1 | 1097.9 |
| 2.5° | 1133.2 | 1123.4 | 1111.0 | 1100.6 | 1093.5 | 1090.8 |
| 3° | 1134.7 | 1122.4 | 1107.8 | 1095.4 | 1087.1 | 1083.8 |
| 3.5° | 1136.0 | 1121.1 | 1104.3 | 1090.0 | 1080.4 | 1076.4 |
| 4° | 1136.9 | 1119.9 | 1100.6 | 1084.6 | 1073.2 | 1069.0 |
| 4.5° | 1137.7 | 1118.4 | 1096.9 | 1078.4 | 1066.1 | 1061.4 |
| 5° | 1138.4 | 1116.9 | 1093.2 | 1072.7 | 1058.6 | 1053.7 |
| 5.5° | 1138.9 | 1115.0 | 1089.3 | 1066.5 | 1051.5 | 1045.6 |
| 6° | 1139.4 | 1113.2 | 1085.1 | 1060.4 | 1043.8 | 1037.7 |
| 6.5° | 1139.7 | 1111.3 | 1080.6 | 1054.0 | 1036.2 | 1029.7 |
| 7° | 1139.7 | 1109.0 | 1076.2 | 1048.0 | 1028.5 | 1021.3 |
| 7.5° | 1139.4 | 1106.8 | 1071.7 | 1041.4 | 1020.6 | 1012.7 |
| 8° | 1139.2 | 1104.3 | 1067.0 | 1034.7 | 1012.5 | 1004.6 |
| 8.5° | 1138.7 | 1101.6 | 1062.4 | 1028.0 | 1004.3 | 995.9 |
| 9° | 1137.9 | 1098.9 | 1057.4 | 1021.1 | 995.9 | 987.0 |
| 9.5° | 1137.2 | 1096.2 | 1052.2 | 1013.9 | 987.8 | 978.1 |
| 10° | 1136.2 | 1093.2 | 1047.0 | 1006.8 | 979.4 | 969.2 |
| 10.5° | 1135.0 | 1090.0 | 1041.8 | 999.9 | 971.0 | 960.1 |
| 11° | 1133.7 | 1086.8 | 1036.4 | 992.4 | 962.3 | 951.2 |
| 11.5° | 1132.3 | 1083.3 | 1031.0 | 985.0 | 953.4 | 942.1 |
| 12° | 1130.5 | 1079.6 | 1025.3 | 977.6 | 944.8 | 932.4 |
| 12.5° | 1128.8 | 1076.2 | 1019.6 | 970.0 | 935.9 | 923.3 |
| 13° | 1126.8 | 1072.5 | 1013.9 | 962.3 | 927.0 | 914.2 |
| 13.5° | 1124.3 | 1068.5 | 1008.0 | 954.7 | 918.1 | 904.5 |
| 14° | 1122.4 | 1064.6 | 1002.3 | 947.0 | 909.0 | 895.1 |
| 14.5° | 1119.9 | 1060.4 | 996.2 | 939.1 | 899.8 | 885.5 |
| 15° | 1117.2 | 1055.9 | 990.0 | 930.9 | 890.7 | 875.9 |
| 15.5° | 1114.5 | 1051.7 | 983.8 | 923.0 | 881.3 | 866.2 |
| 16° | 1111.5 | 1047.3 | 977.6 | 914.9 | 872.2 | 856.6 |
| 16.5° | 1108.5 | 1042.6 | 971.2 | 907.0 | 863.0 | 847.2 |
| 17° | 1105.1 | 1037.9 | 964.8 | 898.8 | 853.6 | 837.3 |
| 17.5° | 1101.6 | 1033.0 | 958.1 | 890.4 | 844.2 | 827.7 |
| 18° | 1098.2 | 1028.0 | 951.7 | 882.0 | 834.9 | 817.8 |
| 18.5° | 1094.5 | 1022.8 | 944.8 | 873.9 | 825.2 | 808.2 |
| 19° | 1090.5 | 1017.4 | 937.9 | 865.2 | 815.8 | 798.3 |
| 19.5° | 1086.6 | 1012.2 | 930.9 | 857.1 | 806.7 | 788.2 |
| 20° | 1082.4 | 1006.5 | 924.0 | 848.7 | 797.1 | 778.5 |
| 20.5° | 1077.7 | 1000.8 | 916.9 | 840.0 | 787.7 | 768.7 |
| 21° | 1073.2 | 994.9 | 909.5 | 831.4 | 778.1 | 758.8 |

TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL5125CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 1058.4 | 976.4 | 887.2 | 805.7 | 749.4 | 729.1 |
| 23° | 1053.2 | 969.7 | 879.3 | 797.1 | 739.5 | 719.0 |
| 23.5° | 1047.5 | 962.8 | 871.9 | 788.4 | 730.4 | 709.4 |
| 24° | 1041.8 | 955.2 | 864.0 | 779.5 | 720.7 | 699.5 |
| 24.5° | 1035.9 | 948.0 | 855.9 | 770.9 | 711.1 | 689.4 |
| 25° | 1029.7 | 939.8 | 847.5 | 762.0 | 701.2 | 679.7 |
| 25.5° | 1023.3 | 931.9 | 839.3 | 753.1 | 692.1 | 670.1 |
| 26° | 1016.4 | 923.3 | 830.7 | 744.2 | 682.5 | 660.5 |
| 26.5° | 1009.2 | 914.9 | 821.8 | 735.3 | 672.8 | 650.8 |
| 27° | 1001.8 | 906.5 | 812.9 | 726.4 | 663.4 | 641.2 |
| 27.5° | 993.9 | 897.4 | 803.7 | 717.3 | 654.1 | 631.8 |
| 28° | 985.5 | 887.7 | 794.4 | 708.2 | 644.4 | 622.2 |
| 28.5° | 977.1 | 878.8 | 785.2 | 699.3 | 635.0 | 613.1 |
| 29° | 968.5 | 869.2 | 775.8 | 690.4 | 625.9 | 603.9 |
| 29.5° | 959.4 | 859.3 | 766.4 | 681.2 | 616.8 | 594.5 |
| 30° | 950.5 | 849.2 | 756.6 | 671.8 | 607.6 | 585.6 |
| 30.5° | 941.1 | 838.8 | 747.2 | 662.7 | 598.5 | 576.5 |
| 31° | 931.2 | 828.2 | 737.1 | 653.3 | 589.3 | 567.6 |
| 31.5° | 920.8 | 817.3 | 727.2 | 643.9 | 580.2 | 558.7 |
| 32° | 910.4 | 806.7 | 717.0 | 634.8 | 571.6 | 549.8 |
| 32.5° | 899.8 | 795.6 | 707.2 | 625.2 | 562.7 | 541.2 |
| 33° | 888.7 | 784.0 | 696.8 | 615.8 | 553.8 | 532.5 |
| 33.5° | 877.6 | 772.6 | 686.4 | 606.4 | 545.1 | 523.9 |
| 34° | 865.7 | 761.3 | 676.0 | 596.8 | 536.5 | 515.5 |
| 34.5° | 854.1 | 749.4 | 665.7 | 587.1 | 528.1 | 506.6 |
| 35° | 842.3 | 737.8 | 655.0 | 577.5 | 519.4 | 498.2 |
| 35.5° | 830.2 | 725.4 | 644.7 | 568.1 | 511.0 | 489.8 |
| 36° | 817.8 | 713.8 | 634.1 | 559.0 | 502.4 | 481.7 |
| 36.5° | 805.0 | 701.7 | 623.4 | 549.6 | 494.2 | 473.3 |
| 37° | 792.4 | 689.1 | 612.8 | 540.2 | 485.9 | 464.9 |
| 37.5° | 779.5 | 677.0 | 602.2 | 530.6 | 477.7 | 456.5 |
| 38° | 766.4 | 664.2 | 591.6 | 521.2 | 469.1 | 448.1 |
| 38.5° | 753.1 | 651.8 | 580.7 | 512.0 | 460.9 | 439.9 |
| 39° | 740.0 | 639.2 | 570.1 | 502.9 | 453.0 | 432.0 |
| 39.5° | 726.7 | 626.9 | 559.5 | 494.0 | 444.8 | 423.6 |
| 40° | 713.1 | 614.0 | 548.8 | 484.6 | 436.2 | 415.5 |
| 40.5° | 699.3 | 601.4 | 538.0 | 475.5 | 428.3 | 407.3 |
| 41° | 685.4 | 588.8 | 527.3 | 466.6 | 420.4 | 399.2 |
| 41.5° | 671.8 | 576.3 | 516.5 | 457.4 | 412.0 | 391.2 |
| 42° | 657.8 | 563.9 | 505.9 | 448.6 | 404.1 | 383.1 |
| 42.5° | 644.4 | 551.3 | 495.2 | 439.7 | 395.9 | 375.2 |
| 43° | 630.3 | 538.7 | 484.9 | 430.8 | 388.3 | 367.3 |
| 43.5° | 616.3 | 526.4 | 474.2 | 421.9 | 379.9 | 359.1 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL5125CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 575.3 | 489.8 | 443.4 | 395.9 | 356.7 | 335.7 |
| 45.5° | 561.7 | 477.7 | 433.0 | 387.5 | 348.5 | 327.8 |
| 46° | 547.8 | 465.8 | 423.4 | 379.1 | 341.1 | 320.4 |
| 46.5° | 534.5 | 454.0 | 413.0 | 370.5 | 333.2 | 312.2 |
| 47° | 520.9 | 442.4 | 403.1 | 362.1 | 325.5 | 304.6 |
| 47.5° | 507.8 | 430.8 | 393.2 | 353.7 | 317.6 | 296.9 |
| 48° | 494.5 | 419.4 | 383.8 | 345.6 | 310.2 | 289.5 |
| 48.5° | 481.7 | 408.0 | 374.2 | 337.4 | 302.6 | 281.6 |
| 49° | 468.6 | 397.2 | 364.6 | 329.3 | 294.9 | 274.2 |
| 49.5° | 456.0 | 386.3 | 355.2 | 321.1 | 287.3 | 266.8 |
| 50° | 443.1 | 375.2 | 346.3 | 313.0 | 279.9 | 259.1 |
| 50.5° | 430.8 | 364.8 | 336.9 | 305.0 | 272.4 | 251.4 |
| 51° | 418.7 | 354.4 | 328.0 | 297.1 | 264.8 | 244.3 |
| 51.5° | 406.8 | 344.3 | 319.1 | 289.5 | 257.4 | 236.9 |
| 52° | 394.7 | 334.4 | 310.5 | 281.6 | 250.2 | 229.7 |
| 52.5° | 382.6 | 324.6 | 301.8 | 274.2 | 243.0 | 222.5 |
| 53° | 371.0 | 315.2 | 293.7 | 266.5 | 235.6 | 215.9 |
| 53.5° | 359.9 | 306.0 | 285.0 | 259.1 | 228.2 | 209.5 |
| 54° | 348.5 | 296.9 | 276.9 | 251.7 | 221.3 | 205.5 |
| 54.5° | 337.9 | 288.2 | 269.2 | 244.5 | 214.4 | 202.8 |
| 55° | 327.5 | 279.9 | 261.3 | 237.4 | 207.7 | 199.8 |
| 55.5° | 317.1 | 271.5 | 253.9 | 230.5 | 201.1 | 197.1 |
| 56° | 307.3 | 263.5 | 246.3 | 223.5 | 194.9 | 193.9 |
| 56.5° | 297.6 | 255.6 | 239.1 | 216.6 | 191.4 | 190.7 |
| 57° | 288.5 | 248.0 | 231.9 | 210.0 | 188.7 | 187.7 |
| 57.5° | 279.4 | 240.6 | 225.3 | 203.3 | 185.7 | 184.3 |
| 58° | 270.7 | 233.4 | 218.6 | 196.9 | 182.8 | 181.1 |
| 58.5° | 262.3 | 226.5 | 211.9 | 190.7 | 179.6 | 177.3 |
| 59° | 253.9 | 219.8 | 205.5 | 184.5 | 176.4 | 173.4 |
| 59.5° | 246.0 | 213.2 | 199.3 | 178.3 | 173.4 | 169.7 |
| 60° | 238.4 | 206.5 | 193.2 | 172.4 | 169.9 | 165.7 |
| 60.5° | 230.9 | 200.3 | 187.2 | 166.7 | 166.5 | 161.5 |
| 61° | 223.8 | 194.1 | 181.3 | 161.0 | 163.0 | 157.6 |
| 61.5° | 216.6 | 188.5 | 175.9 | 155.9 | 159.3 | 153.6 |
| 62° | 210.2 | 182.5 | 170.4 | 150.7 | 155.4 | 149.4 |
| 62.5° | 203.8 | 176.9 | 165.2 | 145.7 | 151.7 | 145.5 |
| 63° | 197.4 | 171.4 | 159.8 | 141.3 | 148.0 | 141.5 |
| 63.5° | 190.9 | 166.0 | 154.9 | 137.8 | 144.2 | 137.6 |
| 64° | 184.5 | 160.6 | 149.7 | 135.1 | 140.3 | 133.4 |
| 64.5° | 178.3 | 155.6 | 145.0 | 132.4 | 136.6 | 129.4 |
| 65° | 172.7 | 150.7 | 140.3 | 129.7 | 132.9 | 125.5 |
| 65.5° | 167.0 | 146.0 | 135.9 | 126.7 | 129.2 | 121.5 |
| 66° | 161.5 | 141.0 | 131.4 | 123.7 | 125.2 | 117.6 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL5125CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 67.5° | 146.0 | 127.7 | 118.8 | 114.9 | 114.1 | 107.2 |
| 68° | 140.8 | 123.3 | 114.9 | 111.6 | 110.4 | 103.7 |
| 68.5° | 136.1 | 119.1 | 111.2 | 108.7 | 107.0 | 100.5 |
| 69° | 131.4 | 114.9 | 107.2 | 105.5 | 103.5 | 97.3 |
| 69.5° | 126.7 | 110.9 | 103.5 | 102.3 | 100.0 | 94.1 |
| 70° | 122.3 | 107.0 | 100.0 | 99.0 | 96.8 | 90.9 |
| 70.5° | 117.8 | 103.2 | 96.6 | 95.8 | 93.6 | 87.9 |
| 71° | 113.6 | 99.3 | 92.9 | 92.6 | 90.4 | 85.0 |
| 71.5° | 109.2 | 95.6 | 89.9 | 89.4 | 87.4 | 82.0 |
| 72° | 105.2 | 91.9 | 86.7 | 86.5 | 84.2 | 78.8 |
| 72.5° | 101.0 | 88.9 | 83.5 | 83.2 | 81.3 | 75.8 |
| 73° | 97.1 | 85.5 | 80.5 | 80.3 | 78.1 | 72.9 |
| 73.5° | 93.1 | 82.0 | 77.3 | 77.1 | 75.1 | 69.7 |
| 74° | 89.4 | 78.3 | 74.3 | 74.1 | 71.9 | 66.7 |
| 74.5° | 85.5 | 74.8 | 71.4 | 71.1 | 68.9 | 63.7 |
| 75° | 81.8 | 71.6 | 68.7 | 68.2 | 65.7 | 60.8 |
| 75.5° | 78.3 | 68.4 | 65.9 | 65.5 | 62.7 | 57.8 |
| 76° | 74.6 | 65.2 | 63.5 | 62.5 | 59.5 | 54.8 |
| 76.5° | 71.1 | 62.2 | 61.0 | 59.5 | 56.6 | 51.9 |
| 77° | 67.7 | 59.0 | 58.5 | 56.8 | 53.6 | 49.2 |
| 77.5° | 64.2 | 56.1 | 56.1 | 53.8 | 50.6 | 46.2 |
| 78° | 61.0 | 53.1 | 53.4 | 51.1 | 47.7 | 43.5 |
| 78.5° | 57.6 | 50.4 | 50.9 | 48.4 | 44.7 | 40.5 |
| 79° | 54.3 | 47.4 | 48.2 | 45.7 | 41.7 | 37.8 |
| 79.5° | 51.1 | 44.7 | 45.7 | 43.0 | 38.8 | 34.8 |
| 80° | 47.9 | 42.0 | 43.0 | 40.3 | 35.8 | 32.1 |
| 80.5° | 45.0 | 39.3 | 40.5 | 37.5 | 33.1 | 29.4 |
| 81° | 42.0 | 36.6 | 37.8 | 35.1 | 30.1 | 26.7 |
| 81.5° | 39.0 | 34.1 | 35.3 | 32.4 | 27.4 | 24.0 |
| 82° | 36.1 | 31.6 | 32.9 | 29.9 | 24.9 | 21.2 |
| 82.5° | 33.3 | 29.1 | 30.4 | 27.4 | 22.2 | 18.5 |
| 83° | 30.6 | 26.7 | 27.9 | 25.2 | 19.8 | 16.1 |
| 83.5° | 27.9 | 24.2 | 25.4 | 22.7 | 17.3 | 13.3 |
| 84° | 25.2 | 22.0 | 23.2 | 20.5 | 15.1 | 10.9 |
| 84.5° | 22.7 | 19.5 | 20.7 | 18.3 | 13.1 | 8.9 |
| 85° | 20.3 | 17.3 | 18.3 | 16.1 | 11.1 | 7.9 |
| 85.5° | 17.8 | 15.1 | 16.1 | 13.8 | 9.6 | 6.7 |
| 86° | 15.3 | 13.1 | 13.6 | 11.9 | 8.2 | 5.4 |
| 86.5° | 12.6 | 10.9 | 11.4 | 9.6 | 6.7 | 4.4 |
| 87° | 10.4 | 8.9 | 9.1 | 7.7 | 5.2 | 3.2 |
| 87.5° | 8.2 | 6.9 | 6.9 | 5.9 | 3.7 | 2.2 |
| 88° | 5.9 | 4.9 | 4.9 | 4.0 | 2.5 | 1.2 |
| 88.5° | 3.7 | 3.0 | 3.0 | 2.0 | 1.2 | 0.5 |



TEST NUMBER: P776011

CATALOG NUMBER: HCDJBL51525CSD-HCD4TQSH-HCD4TSQLWW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 |



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





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

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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| 21.5° | 748.7 | 766.7 | 821.3 | 902.3 | 997.9 | 1078.2 | 1136.9 | 1171.8 | 1182.9 | 1165.6 | 1126.8 |
| 22° | 739.0 | 757.1 | 812.4 | 894.6 | 991.5 | 1073.2 | 1133.0 | 1168.3 | 1179.4 | 1161.9 | 1122.9 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44° | 351.5 | 366.1 | 403.1 | 455.7 | 517.7 | 603.2 | 678.0 | 634.8 | 599.5 | 636.5 | 679.7 |
| 44.5° | 343.6 | 358.2 | 394.5 | 445.1 | 505.1 | 589.3 | 661.7 | 620.7 | 584.7 | 622.9 | 663.4 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 66.5° | 114.1 | 116.6 | 114.4 | 115.6 | 126.7 | 143.0 | 166.0 | 172.2 | 171.4 | 177.8 | 176.4 |
| 67° | 110.4 | 112.6 | 111.2 | 111.6 | 122.3 | 138.1 | 160.3 | 166.5 | 166.0 | 172.4 | 170.2 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89° | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.2 | 1.0 | 1.5 |
| 89.5° | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.5 |

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| | | | | | | |
|-------|--------|-------|-------|-------|-------|-------|
| 21.5° | 1068.5 | 989.0 | 902.0 | 823.0 | 768.4 | 748.7 |
| 22° | 1063.6 | 982.6 | 894.6 | 814.4 | 758.8 | 739.0 |



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 44° | 602.4 | 514.3 | 463.9 | 413.2 | 372.5 | 351.5 |
| 44.5° | 589.1 | 501.9 | 453.5 | 404.6 | 364.3 | 343.6 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 66.5° | 156.1 | 136.6 | 127.2 | 121.0 | 121.5 | 114.1 |
| 67° | 150.9 | 131.9 | 123.0 | 118.1 | 117.8 | 110.4 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 1.7 | 1.0 | 1.0 | 0.7 | 0.2 | 0.0 |
| 89.5° | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 |

Signify Classified - Internal
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Scaled Data Report



(END OF REPORT)