

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: P776148

Luminaire Tested: HCDJBS1525CSD-HCD81TRMW-2500lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B044)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS1525CSD-HCD81TRMW-2500lm-4000K
Description: 8 INCH ROUND SHALLOW-WIDE MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

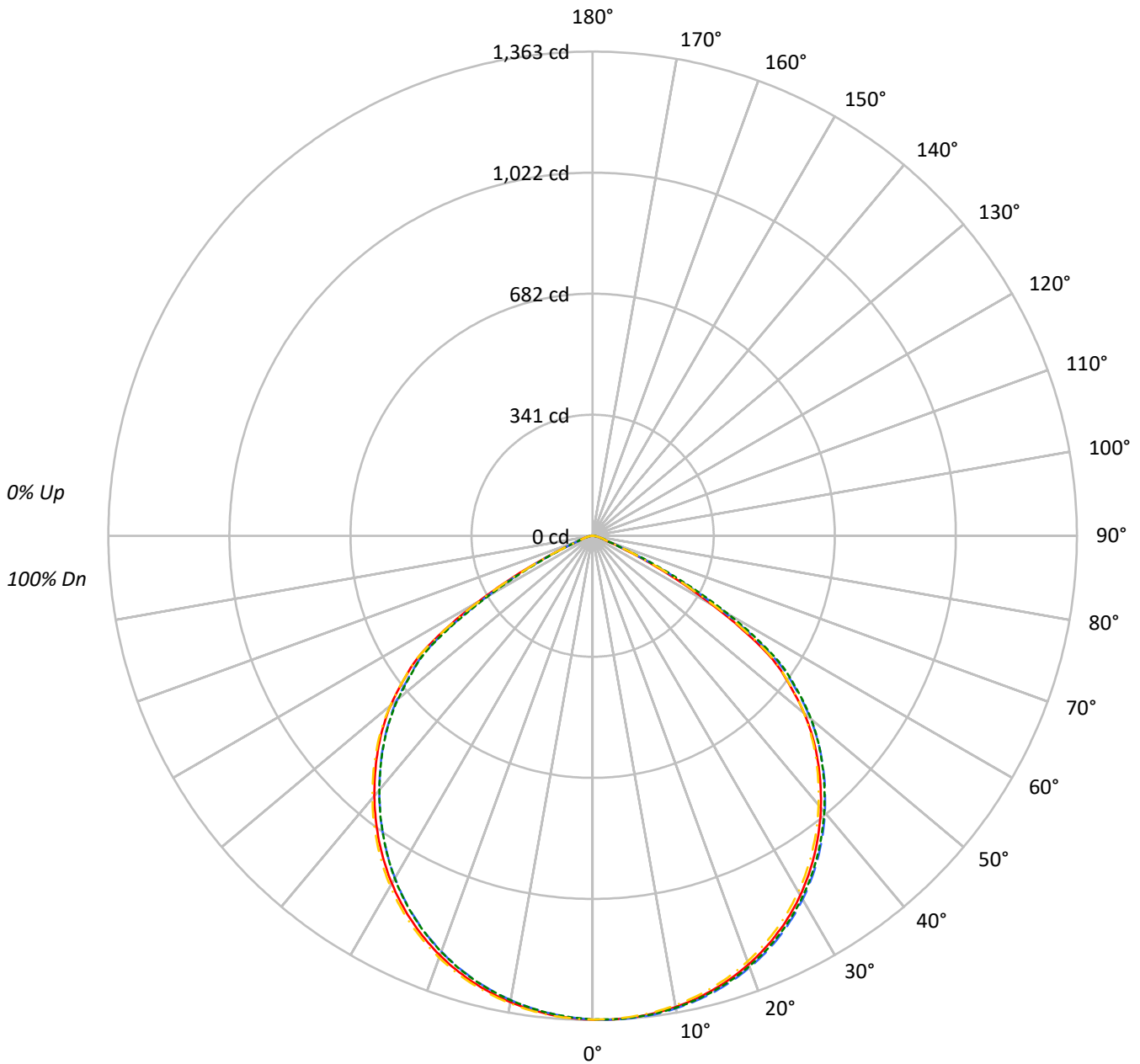
Lumens per Lamp: N/A
Luminaire Lumens: 3138.3 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.35
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 25
Input Voltage (V): NR
Input Current (A_{in}): 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: P776148
CATALOG NUMBER: HCDJBL51525CSD-HCD81TRMW-2500lm-4000K

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89																			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77																			
3	95	86	79	73	92	84	78	72	81	76	71	79	74	70	76	72	69	67																			
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	54	62	57	53	51																			
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																			
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40																			
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38	36																			
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32																			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	29																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	41576	41576	41576	41576
5°	41689	41704	41478	41370
10°	41752	41824	41328	41154
15°	41772	41895	41115	40875
20°	41717	41899	40833	40495
25°	41532	41788	40410	39966
30°	41197	41528	39843	39251
35°	40644	41080	39071	38314
40°	39823	40412	38081	37208
45°	38708	39498	36907	35918
50°	36905	38111	35205	33936
55°	33699	35338	32118	30760
60°	23832	26830	22696	20773
65°	11703	13993	10562	9536
70°	3722	4106	3749	3678
75°	2701	3032	2725	2784
80°	1881	2233	1881	2004
85°	1086	1506	1086	1261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 39588 cd/sqm



TEST NUMBER: P776148

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.9	4.1
10°-20°	369.8	11.8
20°-30°	559.7	17.8
30°-40°	667.2	21.3
40°-50°	673.3	21.5
50°-60°	534.8	17.0
60°-70°	173.4	5.5
70°-80°	26.6	0.8
80°-90°	4.7	0.1
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°	1058.4	33.7
0°-40°	1725.6	55.0
0°-60°	2933.6	93.5
0°-90°	3138.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3138.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1362	1362	1362	1362	1362	
5°	1360	1361	1353	1350	1360	129
15°	1322	1326	1301	1293	1322	373
25°	1233	1240	1200	1186	1233	568
35°	1090	1102	1048	1028	1090	681
45°	896	915	855	832	896	690
55°	633	664	603	578	633	546
65°	162	194	146	132	162	175
75°	23	26	23	24	23	25
85°	3	4	3	4	3	4
90°	0	0	0	0	0	



TEST NUMBER: P776148

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1361.8	1361.8	1361.8	1361.8	1361.8	1361.8	1361.8	1361.8	1361.8	1361.8	1361.8
0.5°	1362.6	1362.3	1362.3	1362.6	1361.3	1361.6	1362.1	1362.1	1361.8	1361.3	1361.1
1°	1362.6	1362.6	1362.8	1363.1	1361.8	1361.8	1361.8	1361.8	1361.3	1360.6	1360.3
1.5°	1362.8	1362.8	1363.1	1363.3	1362.1	1361.8	1361.8	1361.6	1360.6	1359.8	1359.3
2°	1362.6	1362.8	1363.3	1363.6	1362.3	1361.8	1361.6	1361.1	1360.0	1358.8	1358.3
2.5°	1362.3	1362.8	1363.3	1363.6	1362.3	1361.8	1361.1	1360.3	1359.0	1358.0	1357.2
3°	1362.3	1362.8	1363.3	1363.6	1362.1	1361.6	1360.8	1359.5	1358.3	1356.7	1356.2
3.5°	1361.8	1362.6	1363.1	1363.6	1362.1	1361.1	1360.0	1358.8	1357.2	1355.5	1354.7
4°	1361.6	1362.3	1362.8	1363.1	1361.8	1360.8	1359.3	1357.8	1356.0	1354.2	1353.4
4.5°	1360.8	1361.8	1362.6	1362.8	1361.3	1360.0	1358.5	1356.7	1354.7	1352.7	1351.7
5°	1360.3	1361.3	1362.3	1362.3	1360.8	1359.5	1357.5	1355.5	1353.4	1351.1	1350.1
5.5°	1359.5	1360.6	1361.6	1361.8	1360.0	1358.8	1356.5	1354.2	1351.7	1349.4	1348.3
6°	1358.5	1359.8	1360.8	1361.1	1359.3	1357.8	1355.2	1352.9	1350.1	1347.6	1346.6
6.5°	1357.5	1359.0	1360.0	1360.3	1358.5	1356.7	1353.9	1351.4	1348.3	1345.5	1344.5
7°	1356.2	1358.0	1359.3	1359.3	1357.5	1355.5	1352.7	1349.9	1346.6	1343.5	1342.2
7.5°	1355.0	1356.7	1358.3	1358.3	1356.5	1354.2	1351.4	1347.8	1344.5	1341.5	1340.2
8°	1353.7	1355.5	1357.0	1357.2	1355.2	1352.9	1349.6	1346.1	1342.5	1339.2	1337.7
8.5°	1351.9	1354.2	1355.7	1355.7	1353.9	1351.1	1347.8	1344.0	1340.2	1336.9	1335.4
9°	1350.4	1352.9	1354.4	1354.4	1352.4	1349.6	1345.8	1342.0	1337.9	1334.4	1332.8
9.5°	1348.6	1351.1	1352.9	1352.9	1350.9	1348.1	1344.0	1339.7	1335.6	1331.8	1330.0
10°	1346.8	1349.6	1351.1	1351.1	1349.1	1346.1	1342.0	1337.4	1333.1	1329.0	1327.2
10.5°	1344.8	1347.8	1349.4	1349.4	1347.3	1344.0	1340.0	1334.9	1330.3	1326.2	1324.2
11°	1342.8	1345.8	1347.6	1347.6	1345.3	1342.0	1337.4	1332.3	1327.5	1323.2	1321.1
11.5°	1340.5	1343.8	1345.5	1345.5	1343.3	1339.7	1334.9	1329.8	1324.7	1320.1	1318.1
12°	1338.2	1341.7	1343.5	1343.5	1341.0	1337.4	1332.3	1326.7	1321.6	1317.1	1314.8
12.5°	1335.9	1339.4	1341.2	1341.2	1338.9	1334.9	1329.8	1323.9	1318.3	1313.5	1311.2
13°	1333.1	1336.9	1338.9	1338.7	1336.4	1332.3	1327.0	1320.9	1315.0	1310.2	1307.9
13.5°	1330.3	1334.1	1336.4	1336.1	1333.9	1329.5	1324.2	1317.6	1311.7	1306.6	1304.1
14°	1327.5	1331.6	1333.9	1333.6	1331.1	1326.7	1321.1	1314.5	1308.2	1303.1	1300.3
14.5°	1324.7	1328.8	1331.3	1330.8	1328.5	1323.7	1317.8	1311.0	1304.6	1299.3	1296.5
15°	1321.6	1326.2	1328.5	1328.0	1325.5	1320.9	1314.5	1307.4	1300.8	1295.2	1292.7
15.5°	1318.3	1322.9	1325.5	1325.0	1322.4	1317.6	1311.2	1304.1	1297.0	1291.4	1288.3
16°	1315.0	1319.9	1322.4	1321.6	1319.1	1314.3	1307.7	1300.0	1292.9	1287.1	1284.0
16.5°	1311.7	1316.6	1319.1	1318.3	1316.1	1311.0	1304.1	1296.2	1288.8	1283.0	1279.7
17°	1307.9	1313.3	1315.8	1315.0	1312.7	1307.4	1300.3	1292.2	1284.8	1278.7	1275.1
17.5°	1304.4	1309.7	1312.5	1311.5	1309.2	1303.9	1296.2	1288.1	1280.2	1273.8	1270.5
18°	1300.5	1305.9	1308.7	1307.9	1305.6	1300.0	1292.4	1283.8	1275.9	1269.3	1265.7
18.5°	1296.7	1302.3	1305.1	1303.9	1301.8	1296.0	1288.3	1279.4	1271.3	1264.4	1260.9
19°	1292.4	1298.5	1301.1	1300.3	1297.7	1291.9	1284.0	1274.9	1266.5	1259.4	1255.8
19.5°	1288.3	1294.4	1297.2	1296.2	1293.7	1287.8	1279.7	1270.3	1261.6	1254.5	1250.7
20°	1284.0	1290.1	1293.2	1292.2	1289.6	1283.5	1275.1	1265.7	1256.8	1249.4	1245.4
20.5°	1279.7	1285.8	1288.8	1287.8	1285.3	1279.2	1270.5	1260.6	1251.5	1244.1	1240.0
21°	1274.9	1281.5	1284.3	1283.5	1280.7	1274.6	1265.5	1255.5	1246.4	1238.5	1234.4



TEST NUMBER: P776148

CATALOG NUMBER: HCDJBL1525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1260.4	1267.2	1270.5	1269.3	1266.7	1260.1	1250.5	1240.0	1229.9	1221.5	1217.1
23°	1255.0	1262.4	1265.5	1264.4	1261.9	1255.0	1245.4	1234.2	1224.0	1215.9	1211.0
23.5°	1249.9	1257.3	1260.6	1259.4	1256.6	1249.9	1239.8	1228.8	1218.2	1209.5	1204.9
24°	1244.4	1252.0	1255.3	1254.3	1251.5	1244.6	1234.2	1223.0	1212.3	1203.7	1198.6
24.5°	1238.8	1246.6	1249.9	1248.7	1246.1	1239.0	1228.6	1217.1	1206.0	1197.1	1192.0
25°	1232.9	1241.0	1244.4	1243.1	1240.5	1233.2	1223.0	1211.0	1199.6	1190.7	1185.4
25.5°	1227.3	1235.5	1238.8	1237.5	1234.9	1227.6	1217.1	1204.7	1193.5	1184.3	1178.8
26°	1221.5	1229.6	1232.9	1231.9	1229.1	1221.7	1211.0	1198.6	1186.9	1177.5	1172.1
26.5°	1215.4	1223.8	1227.3	1226.0	1223.0	1215.9	1204.7	1192.2	1180.3	1170.6	1165.0
27°	1209.0	1217.7	1221.0	1219.9	1216.9	1209.8	1198.6	1185.6	1173.4	1163.8	1157.9
27.5°	1202.7	1211.3	1215.1	1213.6	1211.0	1203.4	1192.0	1179.0	1166.5	1156.6	1150.8
28°	1196.0	1204.9	1208.8	1207.2	1204.7	1197.1	1185.4	1171.9	1159.4	1149.5	1143.7
28.5°	1189.4	1198.3	1202.1	1200.9	1198.1	1190.4	1178.8	1165.0	1152.3	1141.9	1136.0
29°	1182.8	1192.0	1195.5	1194.3	1191.5	1183.6	1171.6	1157.9	1145.2	1134.8	1128.4
29.5°	1175.7	1185.4	1188.9	1187.7	1184.9	1177.0	1164.8	1150.8	1137.6	1126.9	1120.8
30°	1168.6	1178.2	1181.8	1180.8	1178.0	1169.9	1157.7	1143.4	1130.2	1119.3	1112.9
30.5°	1161.7	1171.1	1174.9	1173.7	1171.1	1163.0	1150.5	1136.0	1122.3	1111.4	1104.8
31°	1154.1	1164.0	1167.8	1166.5	1163.8	1155.6	1142.9	1128.4	1114.7	1103.5	1096.9
31.5°	1146.7	1156.6	1160.4	1159.2	1156.6	1148.2	1135.5	1120.5	1106.8	1095.4	1088.7
32°	1139.1	1149.0	1153.1	1151.8	1149.3	1140.9	1127.9	1112.9	1098.7	1087.2	1080.6
32.5°	1131.2	1141.4	1145.7	1144.2	1141.6	1133.2	1120.0	1104.8	1090.5	1078.8	1071.7
33°	1123.6	1133.7	1138.1	1136.5	1134.3	1125.6	1112.1	1096.9	1082.1	1070.4	1063.6
33.5°	1115.4	1125.9	1130.2	1128.9	1126.4	1117.7	1104.0	1088.5	1074.0	1061.5	1054.7
34°	1107.1	1117.7	1122.3	1120.8	1118.2	1109.8	1096.1	1080.1	1065.4	1052.9	1046.0
34.5°	1098.9	1109.6	1114.2	1112.6	1110.1	1101.5	1087.7	1071.7	1056.7	1044.2	1036.9
35°	1090.5	1101.2	1106.0	1104.5	1102.2	1093.3	1079.3	1063.3	1048.3	1035.4	1028.2
35.5°	1081.9	1092.8	1097.6	1096.1	1093.8	1084.9	1070.7	1054.4	1039.4	1026.2	1019.1
36°	1073.2	1084.4	1089.0	1088.0	1085.7	1076.5	1062.3	1045.5	1030.3	1017.3	1009.9
36.5°	1064.3	1075.5	1080.4	1079.3	1076.8	1067.9	1053.7	1036.9	1021.4	1008.1	1000.8
37°	1055.4	1066.6	1071.7	1070.7	1068.4	1059.3	1044.8	1028.2	1012.0	998.7	991.6
37.5°	1046.5	1057.7	1063.1	1061.8	1059.5	1050.1	1035.9	1018.8	1002.8	989.6	982.0
38°	1037.1	1048.6	1053.9	1052.9	1050.6	1041.5	1026.7	1009.7	993.7	979.9	972.5
38.5°	1028.0	1039.4	1044.8	1044.0	1041.5	1032.3	1017.6	1000.5	984.2	970.5	962.9
39°	1018.6	1030.0	1035.6	1034.6	1032.6	1023.1	1008.4	991.1	974.8	960.9	953.5
39.5°	1008.9	1020.6	1026.2	1025.4	1023.4	1013.7	998.7	981.7	965.2	951.2	943.8
40°	999.2	1010.9	1017.0	1016.0	1014.0	1004.6	989.3	971.8	955.5	941.5	933.9
40.5°	989.6	1001.3	1007.1	1006.6	1004.6	994.9	979.7	962.1	945.9	931.4	924.2
41°	979.4	991.4	997.5	997.0	994.7	985.3	970.0	952.5	935.9	921.7	914.1
41.5°	969.2	981.4	987.5	987.3	985.3	975.6	960.3	942.8	926.3	911.8	904.2
42°	959.3	971.5	977.9	977.6	975.6	965.7	950.4	933.1	916.1	901.6	894.0
42.5°	949.2	961.4	968.0	967.7	965.7	955.8	940.5	923.0	905.9	891.7	884.1
43°	939.0	950.9	957.8	957.8	956.0	945.9	930.6	913.1	896.0	881.3	873.9
43.5°	928.6	940.8	947.6	947.9	945.9	935.7	920.4	902.9	885.8	871.1	863.7



TEST NUMBER: P776148

CATALOG NUMBER: HCDJBL5125CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	896.5	908.7	916.4	916.9	914.8	904.7	889.7	872.4	854.8	839.8	832.7
45.5°	885.3	897.8	905.4	906.4	904.4	894.0	879.0	861.4	844.4	829.4	822.3
46°	874.4	887.1	894.7	895.8	893.7	883.3	868.6	851.0	833.7	818.7	811.6
46.5°	863.2	875.4	883.8	884.8	883.0	872.6	857.6	840.3	822.8	808.0	800.9
47°	851.5	864.2	872.6	873.9	872.4	861.4	846.4	829.1	811.9	797.1	789.7
47.5°	839.8	852.5	861.2	862.7	861.4	850.2	835.2	818.0	800.9	785.7	778.5
48°	828.1	840.6	849.7	851.3	849.7	839.1	824.8	807.0	789.7	774.5	767.4
48.5°	815.7	828.4	837.5	839.6	838.6	827.9	812.6	795.6	778.0	763.0	755.7
49°	803.5	816.4	825.6	828.1	826.9	815.7	800.9	783.6	765.8	750.8	743.5
49.5°	790.5	803.7	813.1	815.7	814.9	803.7	788.7	771.4	753.9	738.6	731.0
50°	777.0	790.5	800.4	803.2	802.4	791.5	776.8	759.2	741.2	725.9	718.0
50.5°	763.3	776.5	787.2	789.7	789.5	779.1	763.8	746.0	728.2	712.4	704.8
51°	749.8	763.0	773.5	776.8	776.5	765.3	750.1	732.5	714.5	699.0	691.3
51.5°	735.1	748.5	759.2	762.8	763.3	751.8	736.6	718.8	701.3	686.0	677.9
52°	720.6	734.6	745.2	748.8	749.1	737.9	722.6	704.6	686.8	671.8	663.6
52.5°	706.1	719.6	730.7	734.1	734.8	723.4	708.1	690.3	673.0	657.8	649.9
53°	691.6	704.8	716.0	720.1	720.3	709.1	693.6	676.1	659.0	644.0	636.4
53.5°	677.4	690.1	701.5	705.3	706.1	695.1	679.4	662.6	645.8	631.3	624.0
54°	663.6	676.6	687.5	691.8	692.1	680.9	665.9	649.1	633.1	618.4	610.7
54.5°	649.4	662.6	673.5	677.9	678.1	667.7	652.4	635.1	619.1	604.4	597.0
55°	633.1	646.1	657.8	662.3	663.9	652.7	637.4	619.9	603.4	588.9	581.5
55.5°	615.1	628.0	640.5	645.1	647.3	636.4	620.4	602.6	584.5	569.5	562.9
56°	594.0	608.7	620.1	625.0	628.8	618.1	601.1	581.7	563.4	548.9	541.8
56.5°	571.6	586.8	598.5	603.9	608.2	597.8	580.5	560.1	541.8	526.3	519.2
57°	547.7	562.7	575.6	581.2	586.3	574.9	557.6	537.5	518.4	502.9	495.3
57.5°	522.5	536.7	551.7	558.4	563.4	551.2	533.9	514.1	494.8	479.5	470.9
58°	496.3	510.8	527.1	535.0	540.1	526.3	508.5	489.2	470.6	454.9	446.2
58.5°	470.6	484.6	501.4	510.8	516.1	501.7	483.6	464.8	446.5	431.2	421.6
59°	443.4	458.7	476.0	486.1	490.7	474.7	457.2	438.9	421.3	406.3	396.1
59.5°	417.2	432.0	449.8	460.2	465.0	448.8	430.7	412.9	396.4	381.6	371.5
60°	390.3	406.3	423.6	434.8	439.4	422.6	404.3	386.5	371.7	357.5	347.6
60.5°	364.9	380.6	397.2	408.3	413.7	397.4	377.8	361.3	347.1	333.1	323.4
61°	339.2	355.5	370.7	381.9	387.0	371.7	352.2	335.1	322.1	309.7	300.0
61.5°	314.3	331.0	345.3	354.9	361.6	347.6	327.0	310.2	298.0	286.8	276.9
62°	290.1	306.1	320.4	328.8	336.4	322.1	302.6	285.5	274.3	264.4	255.0
62.5°	266.7	282.5	295.7	302.3	310.5	297.7	278.2	261.4	252.5	243.6	234.7
63°	244.1	259.1	271.6	277.1	285.8	273.8	256.8	239.8	230.6	222.7	214.1
63.5°	222.0	236.5	247.1	251.5	261.9	252.0	235.2	217.9	208.7	201.6	193.5
64°	200.6	214.1	224.3	227.6	239.3	229.9	213.6	196.0	186.9	180.8	173.2
64.5°	180.5	193.2	201.9	204.4	216.6	208.0	192.0	174.4	165.3	159.7	154.8
65°	162.0	172.9	180.3	182.6	193.7	185.9	170.6	155.4	146.2	141.4	138.1
65.5°	143.1	153.3	159.9	162.2	171.1	164.0	151.3	137.8	128.9	124.1	122.6
66°	124.1	134.5	140.1	142.4	150.3	143.9	133.7	121.8	112.4	108.3	108.1



TEST NUMBER: P776148

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	81.4	86.7	90.3	92.3	96.9	94.1	88.2	81.1	70.9	71.2	72.7
68°	72.0	76.8	80.9	82.6	82.6	80.1	75.5	70.7	61.3	62.5	63.8
68.5°	62.5	67.1	71.7	73.0	70.4	67.9	65.1	61.5	53.6	55.9	56.4
69°	53.4	57.5	62.5	63.6	60.3	58.0	56.7	53.9	48.1	50.3	50.3
69.5°	44.0	47.8	53.4	53.9	52.1	50.6	49.6	47.8	44.2	45.8	45.5
70°	41.7	43.2	44.2	44.2	46.0	45.3	44.5	43.5	42.0	42.2	42.5
70.5°	39.7	40.4	41.2	41.2	42.2	42.0	41.7	40.9	39.9	40.2	40.2
71°	37.4	38.4	39.2	39.2	39.9	39.9	39.7	38.9	37.9	38.1	38.4
71.5°	35.3	36.6	37.4	37.4	38.1	37.9	37.6	36.9	35.6	36.1	36.4
72°	33.3	34.6	35.3	35.3	36.1	36.1	35.9	35.1	33.8	34.3	34.6
72.5°	31.5	32.5	33.6	33.6	34.3	34.1	33.8	33.1	31.8	32.3	32.8
73°	29.5	30.8	31.5	31.8	32.5	32.3	32.0	31.3	30.0	30.5	31.0
73.5°	27.7	29.0	29.7	30.0	30.8	30.5	30.3	29.5	28.2	28.7	29.2
74°	26.2	27.2	28.2	28.2	29.0	28.7	28.7	27.7	26.4	27.0	27.5
74.5°	24.4	25.4	26.4	26.4	27.2	27.2	27.0	25.9	24.7	25.4	25.9
75°	22.9	23.9	24.9	24.9	25.7	25.4	25.4	24.4	23.1	23.6	24.4
75.5°	21.4	22.4	23.4	23.4	24.2	23.9	23.9	22.9	21.9	22.1	22.9
76°	19.8	20.8	21.9	21.9	22.6	22.6	22.4	21.4	20.3	20.8	21.6
76.5°	18.6	19.3	20.3	20.6	21.4	21.1	21.1	20.1	19.1	19.6	20.1
77°	17.3	18.1	19.1	19.3	19.8	19.8	19.6	18.8	17.5	18.1	18.8
77.5°	16.0	16.8	17.8	18.1	18.6	18.6	18.3	17.3	16.3	16.8	17.5
78°	14.7	15.5	16.5	16.8	17.3	17.3	17.0	16.0	15.0	15.5	16.0
78.5°	13.7	14.5	15.3	15.5	16.0	16.0	15.8	14.7	13.7	14.2	15.0
79°	12.7	13.2	14.2	14.5	14.7	14.7	14.5	13.5	12.7	13.0	13.7
79.5°	11.4	12.2	13.2	13.2	13.7	13.7	13.5	12.5	11.7	12.0	12.7
80°	10.7	11.2	12.0	12.2	12.7	12.7	12.5	11.4	10.7	10.9	11.7
80.5°	9.7	10.2	10.9	11.2	11.7	11.7	11.4	10.4	9.7	9.9	10.7
81°	8.6	9.2	10.2	10.4	10.7	10.7	10.4	9.4	8.6	8.9	9.7
81.5°	7.9	8.4	9.2	9.4	9.7	9.7	9.4	8.6	7.9	8.1	8.6
82°	7.1	7.6	8.4	8.4	8.9	8.9	8.6	7.6	7.1	7.1	7.9
82.5°	6.1	6.6	7.4	7.6	7.9	7.9	7.6	6.9	6.1	6.4	7.1
83°	5.3	5.8	6.6	6.9	7.1	7.1	6.9	6.1	5.3	5.6	6.4
83.5°	4.8	5.1	5.8	6.1	6.4	6.4	6.1	5.3	4.8	4.8	5.6
84°	4.1	4.3	5.1	5.3	5.6	5.6	5.3	4.6	4.1	4.3	4.8
84.5°	3.6	3.8	4.3	4.6	4.8	4.8	4.6	3.8	3.6	3.6	4.1
85°	3.1	3.3	3.8	4.1	4.3	4.3	4.1	3.3	3.1	3.1	3.6
85.5°	2.3	2.5	3.3	3.6	3.6	3.6	3.3	2.5	2.5	2.3	3.1
86°	2.0	2.0	2.8	2.8	3.1	3.1	2.8	2.0	2.0	1.8	2.5
86.5°	1.5	1.5	2.3	2.3	2.5	2.5	2.3	1.8	1.5	1.5	2.0
87°	1.0	1.3	1.8	2.0	2.0	2.0	1.8	1.3	1.0	1.0	1.5
87.5°	0.8	1.0	1.3	1.5	1.5	1.5	1.5	1.0	0.8	0.8	1.3
88°	0.5	0.8	1.0	1.0	1.3	1.3	1.0	0.8	0.5	0.5	0.8
88.5°	0.3	0.5	0.5	0.8	0.8	0.8	0.8	0.5	0.3	0.3	0.5



TEST NUMBER: P776148
CATALOG NUMBER: HCDJBL51525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P776148

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1361.8	1361.8	1361.8	1361.8	1361.8	1361.8
0.5°	1361.3	1360.3	1360.8	1361.6	1362.3	1362.6
1°	1360.6	1359.5	1360.3	1361.3	1362.3	1362.6
1.5°	1359.8	1358.8	1359.5	1361.1	1362.3	1362.8
2°	1358.8	1358.0	1358.8	1360.6	1362.1	1362.6
2.5°	1357.8	1357.0	1358.0	1359.8	1361.6	1362.3
3°	1356.5	1355.7	1357.0	1359.0	1361.1	1362.3
3.5°	1355.2	1354.4	1356.0	1358.3	1360.6	1361.8
4°	1353.7	1353.2	1354.7	1357.2	1359.8	1361.6
4.5°	1352.2	1351.7	1353.4	1356.2	1359.0	1360.8
5°	1350.6	1349.9	1352.2	1355.0	1358.0	1360.3
5.5°	1348.6	1348.3	1350.6	1353.7	1357.0	1359.5
6°	1346.8	1346.6	1348.9	1352.4	1355.7	1358.5
6.5°	1345.0	1344.5	1347.1	1350.6	1354.4	1357.5
7°	1342.8	1342.5	1345.5	1349.1	1353.2	1356.2
7.5°	1340.7	1340.2	1343.5	1347.3	1351.7	1355.0
8°	1338.2	1337.9	1341.2	1345.3	1350.1	1353.7
8.5°	1335.9	1335.4	1338.9	1343.5	1348.1	1351.9
9°	1333.3	1332.8	1336.4	1341.2	1346.3	1350.4
9.5°	1330.5	1330.3	1334.1	1338.9	1344.3	1348.6
10°	1327.8	1327.5	1331.6	1336.6	1342.2	1346.8
10.5°	1324.7	1324.7	1328.8	1334.1	1340.0	1344.8
11°	1321.9	1321.6	1326.0	1331.6	1337.7	1342.8
11.5°	1318.6	1318.6	1322.9	1328.8	1335.4	1340.5
12°	1315.3	1315.3	1319.9	1326.0	1332.6	1338.2
12.5°	1312.0	1312.0	1316.8	1322.9	1330.0	1335.9
13°	1308.4	1308.4	1313.5	1319.9	1327.2	1333.1
13.5°	1304.6	1304.9	1310.0	1316.6	1324.2	1330.3
14°	1300.8	1300.8	1306.4	1313.3	1321.1	1327.5
14.5°	1297.0	1297.0	1302.8	1310.0	1317.8	1324.7
15°	1293.2	1293.2	1299.0	1306.4	1314.5	1321.6
15.5°	1288.8	1289.1	1294.7	1302.6	1311.2	1318.3
16°	1284.5	1284.8	1290.6	1298.8	1307.7	1315.0
16.5°	1280.2	1280.5	1286.6	1294.7	1303.9	1311.7
17°	1275.9	1276.1	1282.2	1290.6	1300.0	1307.9
17.5°	1270.8	1271.3	1277.9	1286.6	1296.2	1304.4
18°	1266.2	1266.7	1273.1	1282.2	1291.9	1300.5
18.5°	1261.4	1261.6	1268.5	1277.7	1287.8	1296.7
19°	1256.3	1256.8	1263.7	1273.1	1283.5	1292.4
19.5°	1251.2	1251.5	1258.6	1268.5	1279.2	1288.3
20°	1245.9	1246.4	1253.5	1263.7	1274.4	1284.0
20.5°	1240.3	1240.8	1248.4	1258.6	1269.8	1279.7
21°	1234.7	1235.2	1242.8	1253.5	1264.9	1274.9

TEST NUMBER: P776148

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1217.1	1217.9	1226.3	1237.2	1249.7	1260.4
23°	1211.3	1211.8	1220.2	1231.6	1244.4	1255.0
23.5°	1204.9	1205.7	1214.4	1226.0	1238.8	1249.9
24°	1198.6	1199.3	1208.2	1219.9	1233.2	1244.4
24.5°	1192.2	1193.0	1201.6	1214.1	1227.3	1238.8
25°	1185.6	1186.4	1195.3	1207.7	1221.5	1232.9
25.5°	1178.8	1179.8	1188.9	1201.6	1215.4	1227.3
26°	1172.1	1172.9	1182.3	1195.0	1209.3	1221.5
26.5°	1165.0	1166.0	1175.7	1188.7	1202.7	1215.4
27°	1157.9	1158.9	1168.6	1181.8	1196.3	1209.0
27.5°	1150.8	1151.5	1161.5	1174.9	1189.7	1202.7
28°	1143.4	1144.2	1154.3	1168.1	1183.1	1196.0
28.5°	1135.8	1136.8	1147.2	1161.0	1176.2	1189.4
29°	1128.2	1129.2	1139.3	1153.8	1169.1	1182.8
29.5°	1120.3	1121.5	1132.0	1146.5	1162.0	1175.7
30°	1112.1	1113.4	1124.3	1138.8	1154.9	1168.6
30.5°	1104.3	1105.5	1116.2	1131.2	1147.2	1161.7
31°	1096.4	1097.4	1108.6	1123.6	1139.6	1154.1
31.5°	1088.0	1089.3	1100.4	1115.7	1132.0	1146.7
32°	1079.6	1080.6	1092.1	1107.8	1124.3	1139.1
32.5°	1070.9	1072.2	1083.7	1099.4	1116.5	1131.2
33°	1062.6	1063.8	1075.5	1091.3	1108.6	1123.6
33.5°	1053.9	1054.9	1066.6	1083.2	1100.2	1115.4
34°	1045.0	1046.0	1058.0	1074.5	1091.8	1107.1
34.5°	1035.9	1037.4	1049.3	1065.9	1083.4	1098.9
35°	1027.0	1028.0	1040.4	1057.2	1074.8	1090.5
35.5°	1018.1	1019.3	1031.3	1048.3	1066.1	1081.9
36°	1008.9	1009.9	1022.4	1039.4	1057.2	1073.2
36.5°	999.5	1001.0	1013.2	1030.5	1048.6	1064.3
37°	990.3	991.6	1003.8	1021.4	1039.4	1055.4
37.5°	980.7	982.0	994.4	1012.0	1030.3	1046.5
38°	971.3	972.3	984.8	1002.6	1020.9	1037.1
38.5°	961.9	962.9	975.3	993.1	1011.5	1028.0
39°	952.0	953.2	965.7	983.7	1002.0	1018.6
39.5°	942.3	943.3	956.0	973.8	992.6	1008.9
40°	932.6	933.6	946.1	964.2	983.0	999.2
40.5°	922.7	923.7	935.9	954.2	973.3	989.6
41°	913.1	913.8	926.3	944.3	963.1	979.4
41.5°	902.9	903.4	915.8	934.2	953.2	969.2
42°	893.0	893.7	905.9	924.5	943.3	959.3
42.5°	883.0	883.3	895.8	914.3	932.9	949.2
43°	872.6	873.4	885.8	903.9	922.7	939.0
43.5°	862.5	863.0	875.2	893.5	912.3	928.6

TEST NUMBER: P776148

CATALOG NUMBER: HCDJBLS1525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	831.7	831.9	843.6	861.9	880.8	896.5
45.5°	821.3	821.3	833.0	851.3	869.6	885.3
46°	810.6	810.3	822.0	840.3	858.6	874.4
46.5°	799.9	799.1	811.1	829.1	847.5	863.2
47°	789.0	788.5	799.7	817.7	836.0	851.5
47.5°	777.5	776.8	787.7	806.0	824.3	839.8
48°	766.1	765.1	776.0	794.1	812.1	828.1
48.5°	754.4	752.9	764.1	781.9	799.9	815.7
49°	742.2	740.7	751.6	769.1	787.7	803.5
49.5°	729.7	727.9	738.6	756.7	774.7	790.5
50°	716.8	714.5	725.4	743.0	761.5	777.0
50.5°	703.5	701.5	711.9	729.5	747.5	763.3
51°	690.1	687.8	698.5	716.0	733.8	749.8
51.5°	676.3	674.0	684.2	702.3	719.8	735.1
52°	662.1	660.3	670.7	688.0	705.3	720.6
52.5°	648.4	646.6	657.0	673.8	690.1	706.1
53°	635.1	633.6	643.8	660.3	676.6	691.6
53.5°	622.2	621.2	631.3	647.3	663.1	677.4
54°	609.7	608.4	618.4	634.6	649.9	663.6
54.5°	595.7	594.2	604.4	620.1	635.4	649.4
55°	580.7	577.9	588.9	604.6	619.9	633.1
55.5°	562.9	558.6	569.5	585.3	600.8	615.1
56°	541.3	537.3	548.4	564.0	579.7	594.0
56.5°	518.7	514.4	525.3	541.6	556.8	571.6
57°	495.3	490.2	501.4	517.7	533.7	547.7
57.5°	470.9	465.0	477.2	493.5	509.0	522.5
58°	446.2	439.6	452.6	469.1	484.1	496.3
58.5°	420.5	414.7	427.7	444.4	456.9	470.6
59°	394.9	389.0	402.5	418.5	431.7	443.4
59.5°	369.7	364.9	377.8	393.6	405.8	417.2
60°	344.5	340.2	353.4	368.2	379.1	390.3
60.5°	320.1	316.0	329.0	342.7	352.4	364.9
61°	295.7	291.9	304.6	317.3	327.2	339.2
61.5°	273.1	269.8	281.2	293.2	302.6	314.3
62°	252.5	246.9	258.8	268.5	277.4	290.1
62.5°	232.1	225.5	236.5	244.9	254.0	266.7
63°	211.8	204.9	214.6	222.0	230.6	244.1
63.5°	191.5	185.1	194.0	200.1	208.7	222.0
64°	171.1	166.0	173.4	179.0	187.1	200.6
64.5°	154.1	148.7	154.3	159.4	167.8	180.5
65°	138.1	132.0	136.3	140.6	149.0	162.0
65.5°	123.1	117.0	119.2	123.3	131.5	143.1
66°	108.8	102.7	103.2	107.6	115.4	124.1



TEST NUMBER: P776148
 CATALOG NUMBER: HCDJBL51525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	74.2	73.2	72.7	76.0	78.6	81.4
68°	64.8	64.8	64.6	67.1	69.4	72.0
68.5°	57.0	56.4	56.4	58.2	60.5	62.5
69°	50.6	48.1	48.3	49.3	51.4	53.4
69.5°	45.5	43.7	44.0	44.7	45.8	44.0
70°	42.2	41.2	41.4	42.0	42.2	41.7
70.5°	40.2	39.4	39.7	39.9	39.9	39.7
71°	38.4	37.4	37.6	38.1	38.1	37.4
71.5°	36.4	35.6	35.9	36.1	36.1	35.3
72°	34.6	33.6	33.8	34.3	34.1	33.3
72.5°	32.5	31.8	32.0	32.5	32.3	31.5
73°	30.8	30.0	30.3	30.5	30.3	29.5
73.5°	29.2	28.5	28.5	29.0	28.5	27.7
74°	27.5	26.7	27.0	27.2	27.0	26.2
74.5°	25.9	25.2	25.4	25.7	25.2	24.4
75°	24.4	23.6	23.9	23.9	23.6	22.9
75.5°	22.9	22.1	22.4	22.6	22.1	21.4
76°	21.6	20.8	20.8	21.1	20.6	19.8
76.5°	20.1	19.3	19.6	19.6	19.1	18.6
77°	18.8	18.1	18.3	18.3	17.8	17.3
77.5°	17.5	16.8	17.0	17.0	16.5	16.0
78°	16.3	15.8	15.8	16.0	15.3	14.7
78.5°	15.0	14.5	14.7	14.7	14.2	13.7
79°	14.0	13.5	13.5	13.7	13.0	12.7
79.5°	13.0	12.5	12.5	12.5	12.0	11.4
80°	12.0	11.4	11.4	11.4	10.9	10.7
80.5°	10.9	10.4	10.4	10.4	9.9	9.7
81°	9.9	9.7	9.7	9.7	9.2	8.6
81.5°	8.9	8.6	8.9	8.6	8.1	7.9
82°	8.1	7.9	7.9	7.9	7.4	7.1
82.5°	7.4	7.1	7.1	7.1	6.4	6.1
83°	6.6	6.1	6.4	6.1	5.6	5.3
83.5°	5.8	5.6	5.6	5.3	4.8	4.8
84°	5.1	4.8	4.8	4.8	4.3	4.1
84.5°	4.3	4.1	4.3	4.1	3.6	3.6
85°	3.8	3.6	3.6	3.6	3.1	3.1
85.5°	3.3	3.1	3.1	3.1	2.3	2.3
86°	2.5	2.5	2.5	2.5	2.0	2.0
86.5°	2.3	2.0	2.0	2.0	1.5	1.5
87°	1.8	1.5	1.5	1.5	1.3	1.0
87.5°	1.3	1.0	1.0	1.0	1.0	0.8
88°	0.8	0.8	0.8	0.8	0.5	0.5
88.5°	0.5	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P776148

CATALOG NUMBER: HCDJBL51525CSD-HCD81TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0



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Peachtree City, GA 30269

Scaled Data Report





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

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21.5°	1270.0	1276.9	1279.9	1278.9	1276.1	1269.8	1260.6	1250.5	1241.0	1232.9	1228.8
22°	1265.2	1272.3	1275.1	1274.4	1271.6	1264.9	1255.5	1245.4	1235.7	1227.6	1223.0



44°	917.9	930.3	937.2	937.5	935.4	925.5	910.3	893.0	875.4	860.7	853.6
44.5°	907.2	919.4	926.5	927.3	925.5	914.8	899.8	882.5	865.3	850.5	843.1



66.5°	106.5	117.7	122.0	124.3	131.2	125.9	117.0	106.5	96.9	94.1	95.1
67°	90.8	101.5	105.3	107.3	113.7	109.3	101.7	93.3	82.6	81.6	83.1



89°	0.0	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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21.5°	1229.1	1229.9	1237.5	1248.4	1259.9	1270.0
22°	1223.2	1224.0	1231.9	1242.8	1254.8	1265.2



44°	852.3	852.8	865.0	883.3	901.9	917.9
44.5°	842.1	842.4	854.3	872.9	891.4	907.2



66.5°	96.1	90.3	89.2	93.6	101.5	106.5
67°	84.9	81.9	80.9	84.7	87.7	90.8

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89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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(END OF REPORT)