

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: P775948

Luminaire Tested: HCDJBS1525CSD-HCD41TRMW-2500lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775948
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B030)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS1525CSD-HCD41TRMW-2500lm-4000K
Description: 4 INCH ROUND SHALLOW-WIDE MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

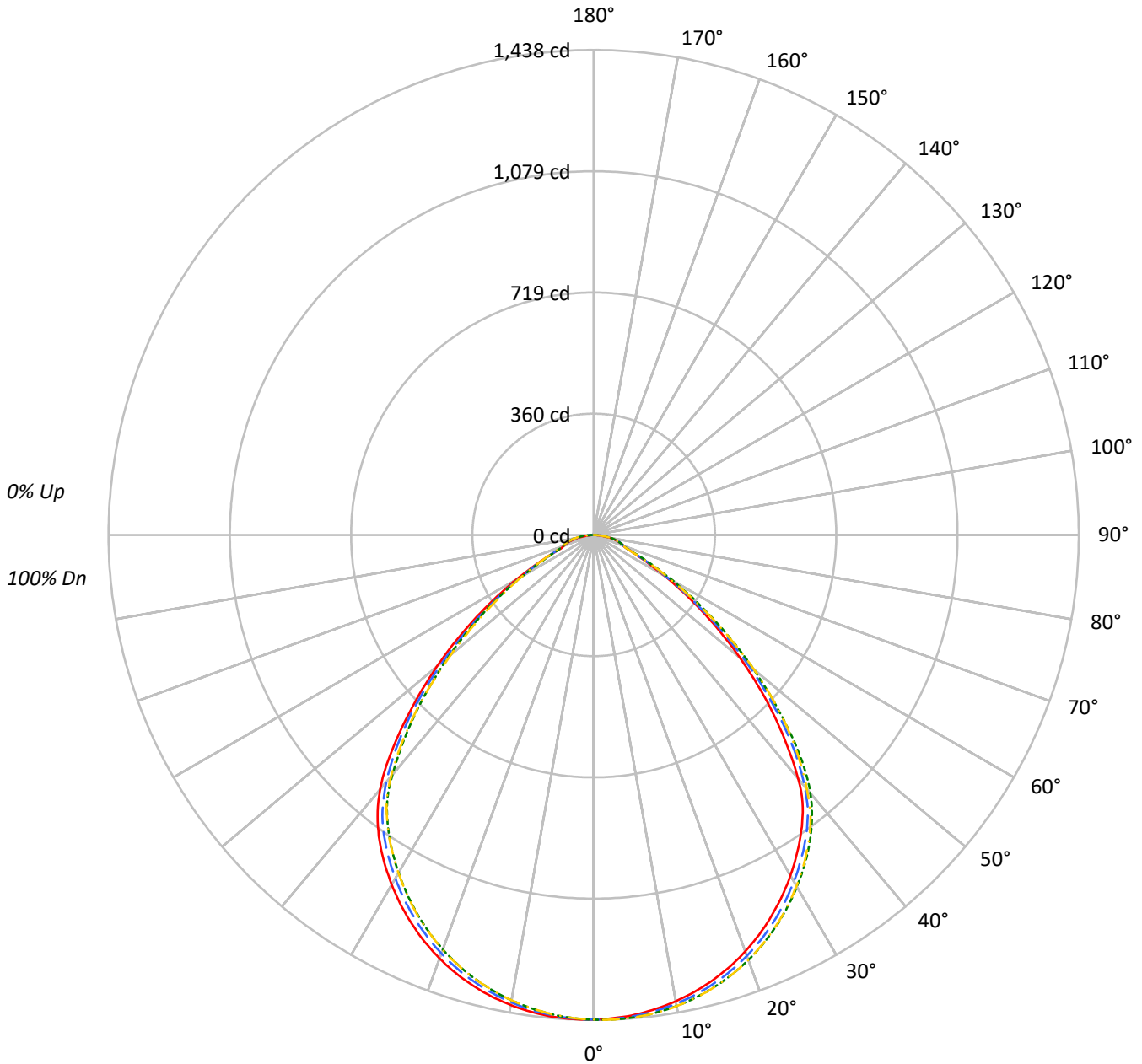
Lumens per Lamp: N/A
Luminaire Lumens: 3001.1 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.28
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	103	96	90	85	100	94	89	84	90	86	82	87	84	81	84	81	79	77								
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67								
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59								
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52								
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47								
7	71	58	50	45	69	57	50	45	56	49	44	55	49	44	53	48	44	42								
8	66	54	46	40	64	53	45	40	52	45	40	50	44	40	49	44	40	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	180871	180871	180871	180871
5°	180337	181310	181082	180210
10°	179406	181259	180863	179074
15°	178040	180724	180229	177441
20°	175993	179609	178926	175136
25°	173144	177782	176852	171978
30°	169485	175066	173990	168047
35°	164803	171410	169996	163160
40°	154921	164187	161805	152358
45°	134463	145604	142472	132701
50°	110718	121016	118589	109758
55°	85505	94611	92768	85505
60°	61012	67934	66524	61264
65°	41422	44400	43239	41511
70°	34551	34367	34625	35287
75°	36371	36614	35107	38365
80°	33918	37759	30801	40585
85°	18772	34511	13284	39276

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
 Vertical Angle: 45°
 Luminance: 147900 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	4.5
10°-20°	387.6	12.9
20°-30°	579.9	19.3
30°-40°	678.0	22.6
40°-50°	599.7	20.0
50°-60°	364.9	12.2
60°-70°	152.1	5.1
70°-80°	78.9	2.6
80°-90°	24.2	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°	1103.4	36.8
0°-40°	1781.4	59.4
0°-60°	2746.0	91.5
0°-90°	3001.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3001.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1437	1437	1437	1437	1437	
5°	1428	1435	1433	1426	1428	136
15°	1366	1387	1383	1362	1366	385
25°	1247	1280	1274	1238	1247	574
35°	1073	1116	1106	1062	1073	668
45°	756	818	800	746	756	580
55°	390	431	423	390	390	351
65°	139	149	145	139	139	147
75°	75	75	72	79	75	77
85°	13	24	9	27	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1437.2	1437.2	1437.2	1437.2	1437.2	1437.2	1437.2	1437.2	1437.2	1437.2	1437.2
0.5°	1437.0	1437.2	1437.5	1437.0	1438.0	1438.2	1437.7	1437.5	1437.5	1437.5	1437.2
1°	1436.4	1437.0	1437.2	1437.2	1438.2	1438.5	1438.2	1437.7	1437.5	1437.5	1437.0
1.5°	1435.7	1436.4	1437.0	1437.2	1438.2	1438.7	1438.2	1437.7	1437.5	1437.2	1436.4
2°	1434.9	1435.7	1436.7	1437.0	1438.2	1438.7	1438.2	1437.7	1437.2	1436.7	1435.9
2.5°	1433.9	1434.9	1436.2	1436.7	1438.0	1438.7	1438.2	1437.5	1437.0	1436.2	1435.2
3°	1432.9	1434.2	1435.4	1436.2	1437.7	1438.5	1437.7	1437.2	1436.4	1435.7	1434.4
3.5°	1431.9	1433.1	1434.7	1435.7	1437.2	1438.2	1437.5	1436.7	1435.9	1434.7	1433.4
4°	1430.6	1431.9	1433.6	1434.9	1436.7	1437.7	1436.7	1435.9	1435.2	1433.9	1432.1
4.5°	1429.1	1430.6	1432.4	1433.9	1435.9	1437.0	1436.2	1435.2	1434.2	1432.9	1430.8
5°	1427.5	1429.3	1431.1	1432.9	1435.2	1436.2	1435.2	1434.4	1433.4	1431.6	1429.3
5.5°	1425.8	1427.5	1429.8	1431.9	1433.9	1435.4	1434.2	1433.1	1432.1	1430.1	1427.8
6°	1423.7	1426.0	1428.3	1430.6	1432.9	1434.2	1433.1	1432.1	1430.8	1428.8	1426.0
6.5°	1421.7	1424.0	1426.8	1429.1	1431.6	1433.1	1431.9	1430.8	1429.6	1427.3	1424.2
7°	1419.7	1421.9	1425.0	1427.5	1430.1	1431.6	1430.3	1429.3	1427.8	1425.5	1422.5
7.5°	1417.4	1419.9	1423.0	1425.8	1428.6	1430.3	1428.8	1427.8	1426.0	1423.5	1420.2
8°	1415.1	1417.6	1421.2	1424.0	1426.5	1428.6	1427.0	1426.0	1424.2	1421.4	1417.9
8.5°	1412.5	1415.3	1418.6	1421.9	1424.7	1427.0	1425.3	1424.0	1422.2	1419.4	1415.6
9°	1409.7	1412.8	1416.3	1419.9	1422.7	1425.0	1423.2	1421.9	1420.2	1416.9	1413.0
9.5°	1406.9	1410.0	1414.1	1417.4	1420.7	1423.0	1421.2	1419.9	1417.9	1414.6	1410.2
10°	1403.9	1407.2	1411.3	1415.1	1418.4	1420.7	1418.9	1417.6	1415.3	1412.0	1407.4
10.5°	1400.8	1404.4	1408.5	1412.3	1415.8	1418.4	1416.3	1415.1	1412.8	1409.2	1404.6
11°	1397.5	1401.1	1405.7	1409.7	1413.3	1415.8	1413.8	1412.3	1410.2	1406.2	1401.3
11.5°	1394.2	1398.0	1402.6	1406.9	1410.5	1413.3	1411.0	1409.7	1407.2	1403.1	1398.0
12°	1390.7	1394.5	1399.3	1403.6	1407.7	1410.5	1408.2	1406.9	1404.4	1400.1	1394.7
12.5°	1386.8	1390.9	1396.0	1400.6	1404.6	1407.7	1405.2	1403.6	1401.3	1396.8	1391.2
13°	1383.3	1387.4	1392.4	1397.3	1401.3	1404.6	1401.8	1400.6	1398.0	1393.2	1387.6
13.5°	1379.0	1383.5	1388.6	1394.0	1398.0	1401.3	1398.5	1397.3	1394.5	1389.6	1383.8
14°	1375.1	1379.7	1385.1	1390.4	1394.5	1398.0	1395.2	1393.7	1390.9	1385.8	1379.7
14.5°	1370.8	1375.6	1381.0	1386.6	1390.9	1394.5	1391.4	1389.9	1387.1	1382.0	1375.6
15°	1366.5	1371.3	1377.2	1382.8	1387.1	1390.9	1387.9	1386.3	1383.3	1377.9	1371.3
15.5°	1361.9	1366.7	1372.9	1378.4	1383.3	1386.8	1383.8	1382.3	1379.2	1373.9	1367.0
16°	1357.1	1362.2	1368.3	1374.4	1379.2	1383.0	1379.5	1378.2	1374.9	1369.3	1362.4
16.5°	1352.2	1357.6	1363.9	1370.1	1374.9	1378.7	1375.4	1373.9	1370.8	1365.0	1357.6
17°	1347.4	1352.8	1359.4	1365.5	1370.6	1374.4	1371.1	1369.3	1366.0	1360.4	1352.8
17.5°	1342.3	1347.7	1354.5	1361.2	1366.0	1370.1	1366.2	1364.7	1361.4	1355.3	1347.7
18°	1337.0	1342.6	1349.4	1356.3	1361.4	1365.2	1361.7	1360.1	1356.8	1350.5	1342.6
18.5°	1331.4	1337.2	1344.4	1351.2	1356.6	1360.4	1356.8	1355.3	1351.7	1345.4	1337.2
19°	1325.8	1331.9	1339.0	1346.1	1351.5	1355.6	1351.7	1350.2	1346.9	1340.3	1331.9
19.5°	1319.9	1326.3	1333.7	1341.1	1346.4	1350.5	1346.4	1345.1	1341.6	1334.7	1326.3
20°	1314.1	1320.5	1328.1	1335.7	1341.1	1345.4	1341.1	1339.5	1336.0	1329.4	1320.5
20.5°	1308.2	1314.6	1322.5	1330.1	1335.7	1339.8	1335.5	1333.9	1330.4	1323.5	1314.3
21°	1301.6	1308.5	1316.4	1324.5	1330.1	1334.4	1329.9	1328.3	1324.8	1317.7	1308.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1282.3	1289.4	1298.1	1306.5	1312.6	1316.9	1311.8	1310.5	1306.7	1299.3	1289.4
23°	1275.4	1282.8	1291.5	1300.4	1306.5	1310.8	1305.4	1304.2	1300.4	1293.0	1282.5
23.5°	1268.6	1275.9	1284.8	1293.7	1300.1	1304.4	1299.1	1297.6	1294.0	1286.1	1275.9
24°	1261.4	1269.1	1278.2	1287.4	1293.5	1298.1	1292.5	1290.9	1287.4	1279.5	1269.1
24.5°	1254.3	1261.9	1271.4	1280.5	1286.9	1291.5	1285.9	1284.3	1280.5	1272.6	1261.9
25°	1246.9	1254.6	1264.2	1273.6	1280.3	1284.6	1278.7	1277.5	1273.6	1265.8	1254.8
25.5°	1239.6	1247.4	1257.1	1266.8	1273.4	1277.7	1271.9	1270.3	1266.8	1258.6	1247.4
26°	1231.7	1240.1	1249.7	1259.7	1266.3	1270.8	1264.7	1263.2	1259.7	1251.3	1239.8
26.5°	1224.3	1232.4	1242.4	1252.5	1258.9	1263.7	1257.4	1255.8	1252.0	1244.1	1232.4
27°	1216.4	1224.6	1234.7	1244.9	1251.8	1256.6	1249.7	1248.5	1244.6	1236.5	1224.8
27.5°	1208.3	1216.9	1227.3	1237.5	1244.1	1249.0	1242.4	1240.8	1237.3	1228.6	1216.9
28°	1200.1	1208.8	1219.2	1229.9	1236.5	1241.3	1234.5	1233.2	1229.4	1221.2	1208.8
28.5°	1191.7	1200.6	1211.3	1222.0	1229.1	1233.7	1226.6	1225.3	1221.5	1212.9	1200.6
29°	1183.6	1192.2	1203.2	1214.1	1221.0	1225.8	1218.4	1217.4	1213.6	1205.2	1192.5
29.5°	1174.9	1184.1	1195.0	1206.0	1213.1	1217.9	1210.3	1209.3	1205.5	1196.8	1184.4
30°	1166.3	1175.7	1186.7	1197.8	1204.7	1209.8	1202.2	1200.9	1197.3	1188.7	1175.7
30.5°	1157.4	1167.1	1178.3	1189.7	1196.6	1201.4	1193.8	1192.5	1188.9	1180.0	1167.1
31°	1148.5	1158.2	1169.9	1181.1	1188.2	1193.3	1185.1	1183.9	1180.3	1171.6	1158.4
31.5°	1139.6	1149.5	1161.0	1172.7	1179.5	1184.6	1176.5	1175.2	1171.6	1163.0	1150.0
32°	1130.7	1140.6	1152.1	1164.0	1170.9	1176.0	1167.6	1166.6	1163.0	1154.6	1140.9
32.5°	1121.3	1131.5	1143.4	1155.1	1162.5	1167.3	1158.7	1157.7	1154.1	1145.7	1131.7
33°	1112.1	1122.3	1134.2	1146.2	1153.3	1158.4	1149.5	1148.5	1145.2	1136.5	1122.5
33.5°	1102.7	1112.9	1125.1	1137.3	1144.2	1149.3	1140.4	1139.1	1135.8	1127.1	1113.1
34°	1092.8	1103.5	1115.4	1127.9	1135.0	1140.1	1130.4	1129.4	1126.1	1117.5	1103.5
34.5°	1083.1	1093.5	1106.0	1118.2	1125.6	1130.2	1121.0	1119.8	1116.4	1108.0	1093.8
35°	1072.7	1083.6	1096.1	1108.6	1115.7	1120.5	1110.8	1109.8	1106.5	1098.1	1083.9
35.5°	1062.5	1073.5	1085.9	1098.6	1105.8	1110.6	1100.9	1099.7	1096.6	1088.0	1073.7
36°	1052.1	1063.0	1075.7	1088.5	1095.8	1100.7	1090.2	1088.7	1085.9	1077.3	1063.0
36.5°	1041.1	1052.3	1065.1	1078.3	1085.2	1090.0	1079.1	1077.8	1074.7	1066.3	1052.1
37°	1030.0	1041.1	1053.9	1066.8	1074.0	1078.8	1067.9	1066.6	1063.5	1055.1	1040.9
37.5°	1018.0	1029.7	1042.7	1055.9	1062.8	1067.6	1055.6	1054.9	1052.1	1043.4	1027.9
38°	1005.5	1017.5	1031.2	1044.2	1051.1	1056.2	1042.4	1042.2	1040.1	1031.0	1014.4
38.5°	991.5	1003.5	1017.5	1032.2	1039.1	1043.7	1028.2	1027.9	1027.2	1018.3	1000.7
39°	976.8	988.2	1002.7	1019.0	1026.4	1030.5	1013.4	1013.7	1013.7	1004.5	985.7
39.5°	960.5	972.7	988.2	1005.5	1013.2	1016.5	998.7	998.7	999.7	990.0	970.9
40°	943.0	956.2	973.0	990.5	999.4	1001.5	983.2	982.6	984.9	974.8	954.9
40.5°	924.9	938.6	956.7	975.5	984.7	985.9	967.6	966.9	969.2	958.7	939.9
41°	906.6	921.1	940.4	959.2	969.2	970.2	952.1	951.1	952.4	942.5	922.9
41.5°	888.3	903.3	923.4	942.7	952.4	954.2	935.8	934.3	935.1	925.7	906.3
42°	868.9	884.7	906.3	925.7	935.1	937.6	919.6	918.0	917.3	908.4	889.0
42.5°	850.4	866.1	888.8	908.4	916.8	920.6	902.5	900.7	898.7	890.3	871.5
43°	831.5	847.8	871.0	890.3	897.9	903.0	885.5	883.2	879.6	872.0	853.2
43.5°	812.7	829.3	851.9	872.0	878.1	885.7	868.2	865.4	859.8	853.2	835.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	755.5	773.5	794.9	814.0	818.1	831.0	813.7	810.2	800.5	794.2	778.6
45.5°	736.4	754.7	775.3	793.9	797.5	811.4	795.7	791.1	780.4	773.8	759.6
46°	717.6	735.9	755.5	773.3	776.6	792.4	776.3	771.3	760.6	753.5	739.5
46.5°	698.5	716.8	735.6	752.7	756.5	772.8	757.3	751.9	740.7	733.1	719.6
47°	678.9	698.0	715.8	731.8	736.7	752.7	738.2	732.6	721.4	712.8	700.0
47.5°	659.8	678.7	695.2	711.2	716.6	732.6	719.4	712.5	702.1	692.9	680.4
48°	640.8	659.1	675.6	690.4	696.7	712.5	699.5	692.7	682.5	672.3	660.1
48.5°	621.7	640.0	655.3	669.5	677.1	692.4	680.4	672.6	663.2	652.5	640.8
49°	602.9	620.7	635.4	649.2	657.3	672.6	660.1	653.0	644.1	632.4	620.7
49.5°	584.0	600.8	615.6	628.6	637.5	652.2	640.0	633.1	624.7	612.8	601.1
50°	565.5	581.8	595.5	608.2	618.1	632.4	620.4	613.3	605.7	592.9	581.5
50.5°	546.9	562.2	575.6	587.9	598.8	612.5	599.8	594.0	586.3	573.9	561.9
51°	528.3	543.1	556.1	568.0	579.2	592.4	580.5	574.9	567.8	555.0	542.8
51.5°	510.5	524.5	536.7	548.2	560.1	573.6	560.1	555.6	549.2	536.0	524.0
52°	492.5	505.7	517.4	529.1	541.3	554.0	539.8	536.2	531.1	516.9	505.2
52.5°	474.9	487.1	498.3	510.0	522.2	534.4	520.4	517.4	512.3	498.6	486.1
53°	457.4	468.8	479.0	491.2	503.7	515.1	500.9	498.8	493.7	480.0	467.8
53.5°	440.1	450.7	460.4	472.6	484.8	496.5	481.8	480.0	475.4	462.5	449.7
54°	423.0	432.9	441.6	454.6	467.0	477.7	461.9	461.7	458.4	444.4	432.4
54.5°	406.2	414.9	423.8	436.5	449.2	459.4	443.4	443.9	440.6	427.1	415.1
55°	389.7	397.8	406.2	419.2	431.2	441.6	424.8	426.1	422.8	409.8	397.6
55.5°	373.7	381.1	388.4	401.9	413.6	423.5	406.5	408.5	405.5	393.3	380.8
56°	357.9	364.5	371.1	385.4	396.3	405.2	388.7	390.7	389.2	376.5	364.8
56.5°	342.1	348.0	354.9	368.8	379.5	387.9	371.1	373.9	372.1	360.4	348.7
57°	326.9	332.2	338.6	352.8	362.7	371.1	354.1	357.1	355.6	344.9	333.2
57.5°	311.9	316.4	322.5	336.8	346.5	354.1	337.6	340.9	339.6	329.7	317.7
58°	297.1	301.2	306.8	321.8	330.2	337.3	321.5	324.8	324.3	314.7	303.2
58.5°	282.9	286.4	292.0	306.5	315.2	321.3	305.8	308.6	308.6	300.2	289.0
59°	269.1	272.2	278.0	292.5	299.4	305.5	290.5	293.0	293.3	285.9	274.7
59.5°	255.6	258.2	264.0	277.8	284.4	290.0	275.5	278.3	278.5	271.9	261.5
60°	242.4	244.7	250.8	264.0	269.9	274.7	261.0	263.5	264.3	258.4	248.5
60.5°	230.0	231.7	237.8	250.6	255.9	260.2	247.5	249.0	250.3	245.5	235.8
61°	217.5	219.3	225.4	237.6	242.2	246.5	235.0	235.5	236.8	233.5	224.6
61.5°	205.8	207.6	213.7	224.6	229.7	233.8	222.3	223.1	224.4	221.6	213.7
62°	194.6	196.4	202.2	212.7	217.2	220.8	209.9	210.4	211.9	209.6	202.5
62.5°	183.9	185.4	191.3	200.7	205.0	208.1	197.4	197.6	199.4	197.6	191.3
63°	173.7	175.0	180.9	189.3	192.6	195.1	184.9	185.2	187.2	185.7	180.1
63.5°	164.3	165.3	170.9	178.3	180.1	182.4	173.5	174.0	176.3	175.0	170.2
64°	155.2	156.4	161.5	167.6	169.4	171.2	163.1	163.1	165.6	165.1	160.8
64.5°	146.5	147.8	152.6	158.0	159.0	160.8	153.4	153.4	155.4	155.4	152.1
65°	139.1	139.9	144.2	148.8	149.1	150.8	144.0	144.2	145.2	146.5	144.0
65.5°	132.0	132.8	136.6	140.2	139.9	141.4	135.3	135.6	135.6	138.4	136.3
66°	125.2	126.2	129.5	132.0	131.3	133.0	127.4	127.7	126.4	130.2	129.2



TEST NUMBER: P775948

CATALOG NUMBER: HCDJBL5125CSD-HCD41TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	108.6	109.9	111.4	112.2	110.7	112.4	108.1	109.1	106.3	111.2	111.9
68°	104.3	105.6	106.6	107.1	105.6	107.1	103.5	104.5	102.0	106.6	107.3
68.5°	100.2	102.0	102.5	102.5	101.2	102.5	100.0	100.7	99.5	102.5	103.3
69°	97.4	99.0	98.7	98.7	97.9	99.0	97.2	97.7	97.7	99.5	100.0
69.5°	95.6	96.2	95.9	95.6	95.1	95.9	95.1	95.6	95.9	96.9	97.7
70°	93.9	93.9	93.9	93.6	93.4	94.1	93.6	93.9	94.1	95.1	95.9
70.5°	92.1	92.3	92.8	92.1	91.8	92.6	92.1	92.1	92.3	93.4	94.4
71°	90.3	90.6	91.1	90.3	90.0	90.8	90.3	90.0	90.3	91.6	92.8
71.5°	88.8	88.8	89.5	88.8	88.5	89.3	88.5	88.3	88.5	89.5	91.1
72°	87.0	87.0	87.8	87.2	86.7	87.5	86.7	86.2	86.2	87.5	89.3
72.5°	85.5	85.5	86.0	85.7	85.0	85.7	85.0	84.2	84.2	85.5	87.5
73°	83.4	83.4	84.2	83.9	83.2	83.9	82.9	81.9	81.9	83.4	85.5
73.5°	81.4	81.4	82.4	81.9	81.4	81.9	80.9	79.6	79.6	81.1	83.4
74°	79.1	79.4	80.4	80.1	79.4	80.1	78.9	77.3	77.3	78.9	81.4
74.5°	76.8	77.1	78.3	78.3	77.3	78.1	76.8	75.0	74.8	76.6	79.4
75°	74.8	74.8	76.3	76.3	75.3	76.1	74.5	72.5	72.2	74.0	77.1
75.5°	72.2	72.5	74.3	74.3	73.3	74.0	72.2	70.0	69.7	71.5	74.8
76°	69.7	70.0	72.0	72.2	71.2	72.0	70.0	67.4	66.9	68.9	72.5
76.5°	67.4	67.7	69.7	70.0	68.9	69.7	67.4	64.9	64.4	66.1	70.2
77°	64.6	65.1	67.4	67.9	66.6	67.4	65.1	62.1	61.3	63.3	67.9
77.5°	61.8	62.3	65.1	65.6	64.4	65.1	62.6	59.3	58.3	60.3	65.1
78°	59.0	59.8	62.6	63.3	62.1	62.8	59.8	56.2	55.2	57.5	62.6
78.5°	56.2	57.0	60.0	61.0	59.5	60.3	57.2	53.2	52.1	54.4	59.8
79°	53.2	53.9	57.5	58.5	57.2	57.7	54.4	50.1	49.1	51.4	57.2
79.5°	50.1	51.1	54.9	56.0	54.7	55.5	51.6	47.1	45.8	48.1	54.4
80°	46.8	47.8	52.1	53.4	52.1	52.7	48.8	44.0	42.5	44.8	51.4
80.5°	43.8	44.8	49.3	50.9	49.3	50.1	46.0	40.7	39.2	41.7	48.6
81°	40.7	41.7	46.6	48.3	46.8	47.3	43.2	37.4	35.6	38.2	45.5
81.5°	37.1	38.4	43.8	45.5	44.0	44.5	40.2	34.1	32.3	34.8	42.5
82°	33.8	35.1	40.7	42.7	41.2	42.0	37.4	30.8	28.7	31.5	39.7
82.5°	30.5	31.8	37.9	39.9	38.4	38.9	34.6	27.7	25.4	28.0	36.6
83°	27.0	28.5	35.1	37.1	35.6	36.1	31.8	24.9	21.9	25.2	33.8
83.5°	23.4	25.2	32.3	34.3	32.8	33.3	29.0	22.1	18.6	22.4	30.8
84°	19.8	21.9	29.5	31.5	30.0	30.5	26.2	19.3	15.0	19.6	28.2
84.5°	16.3	18.8	26.7	28.5	27.0	27.5	23.4	16.8	11.4	16.5	25.4
85°	13.0	16.3	24.2	25.7	23.9	24.4	20.6	14.0	9.2	13.7	22.6
85.5°	9.9	14.2	21.4	22.6	20.9	21.4	17.6	12.0	7.9	12.2	20.1
86°	8.6	12.5	18.6	19.6	17.8	18.3	14.8	10.2	6.9	10.4	17.3
86.5°	7.4	10.4	15.5	16.5	14.8	15.3	12.0	8.4	5.6	8.9	14.5
87°	6.1	8.6	12.7	13.2	11.7	12.0	9.2	6.4	4.6	7.1	11.7
87.5°	4.6	6.9	9.7	10.2	8.6	8.9	6.1	4.6	3.3	5.6	8.9
88°	3.3	5.1	7.4	7.6	5.6	6.1	3.6	2.8	2.0	3.8	6.1
88.5°	2.3	3.3	5.1	5.1	3.1	3.3	1.3	1.3	1.3	2.3	3.6



TEST NUMBER: P775948
CATALOG NUMBER: HCDJBL1525CSD-HCD41TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.0	0.3	0.0



TEST NUMBER: P775948

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1437.2	1437.2	1437.2	1437.2	1437.2	1437.2
0.5°	1436.4	1437.2	1437.2	1437.0	1436.7	1437.0
1°	1435.9	1436.7	1436.2	1436.4	1436.2	1436.4
1.5°	1435.4	1435.9	1435.4	1435.4	1435.4	1435.7
2°	1434.4	1434.9	1434.4	1434.7	1434.4	1434.9
2.5°	1433.6	1433.9	1433.4	1433.6	1433.4	1433.9
3°	1432.6	1432.6	1431.9	1432.4	1432.1	1432.9
3.5°	1431.4	1431.4	1430.6	1431.1	1431.1	1431.9
4°	1430.1	1430.1	1428.8	1429.6	1429.6	1430.6
4.5°	1428.6	1428.3	1427.3	1428.1	1428.1	1429.1
5°	1426.8	1426.5	1425.5	1426.3	1426.3	1427.5
5.5°	1425.0	1424.7	1423.5	1424.2	1424.5	1425.8
6°	1423.2	1422.7	1421.2	1422.5	1422.5	1423.7
6.5°	1421.2	1420.7	1418.9	1420.2	1420.4	1421.7
7°	1419.1	1418.4	1416.6	1417.9	1418.1	1419.7
7.5°	1416.6	1415.8	1414.1	1415.3	1415.6	1417.4
8°	1414.3	1413.3	1411.3	1412.8	1413.3	1415.1
8.5°	1411.5	1410.2	1408.7	1410.2	1410.5	1412.5
9°	1409.0	1407.4	1405.7	1407.4	1408.0	1409.7
9.5°	1405.9	1404.4	1402.6	1404.4	1404.9	1406.9
10°	1402.9	1401.3	1399.3	1401.1	1401.8	1403.9
10.5°	1399.8	1398.0	1395.7	1398.0	1398.8	1400.8
11°	1396.3	1394.7	1392.2	1394.5	1395.5	1397.5
11.5°	1392.9	1391.2	1388.6	1390.9	1391.9	1394.2
12°	1389.4	1387.4	1384.8	1387.4	1388.1	1390.7
12.5°	1385.6	1383.3	1380.7	1383.5	1384.6	1386.8
13°	1381.8	1379.5	1376.7	1379.5	1380.5	1383.3
13.5°	1377.4	1375.1	1372.6	1375.4	1376.4	1379.0
14°	1373.4	1371.1	1368.3	1371.3	1372.1	1375.1
14.5°	1369.0	1366.5	1363.7	1366.7	1367.8	1370.8
15°	1364.5	1361.9	1358.9	1362.4	1363.4	1366.5
15.5°	1359.9	1357.3	1354.3	1357.6	1358.6	1361.9
16°	1355.0	1352.2	1349.2	1352.8	1353.8	1357.1
16.5°	1350.2	1347.4	1344.1	1347.7	1348.9	1352.2
17°	1345.1	1342.1	1338.8	1342.6	1343.9	1347.4
17.5°	1339.8	1336.7	1333.4	1337.2	1338.5	1342.3
18°	1334.4	1331.1	1327.6	1331.9	1333.2	1337.0
18.5°	1328.8	1325.5	1322.0	1326.3	1327.6	1331.4
19°	1323.2	1319.7	1316.1	1320.5	1321.7	1325.8
19.5°	1317.4	1313.8	1310.0	1314.6	1315.9	1319.9
20°	1311.5	1307.7	1303.9	1308.5	1310.0	1314.1
20.5°	1305.2	1301.4	1297.3	1302.1	1304.2	1308.2
21°	1298.8	1294.8	1290.7	1296.0	1297.8	1301.6



TEST NUMBER: P775948

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1279.2	1274.9	1270.3	1275.9	1278.0	1282.3
23°	1272.4	1268.0	1263.2	1269.1	1271.1	1275.4
23.5°	1265.5	1261.2	1256.1	1261.9	1264.0	1268.6
24°	1258.4	1253.6	1248.7	1254.6	1256.6	1261.4
24.5°	1251.0	1246.2	1241.3	1247.4	1249.5	1254.3
25°	1243.6	1238.5	1233.7	1239.8	1242.1	1246.9
25.5°	1236.0	1230.9	1225.6	1232.2	1234.5	1239.6
26°	1228.4	1223.0	1217.9	1224.6	1226.8	1231.7
26.5°	1220.5	1215.4	1210.1	1216.4	1219.0	1224.3
27°	1212.6	1207.3	1201.7	1208.5	1211.1	1216.4
27.5°	1204.7	1199.1	1193.5	1200.4	1202.9	1208.3
28°	1196.6	1190.5	1185.1	1192.0	1194.5	1200.1
28.5°	1188.2	1182.3	1176.5	1183.3	1186.4	1191.7
29°	1179.8	1173.9	1168.1	1174.7	1177.7	1183.6
29.5°	1171.1	1165.3	1158.9	1166.3	1169.1	1174.9
30°	1162.7	1156.4	1150.5	1157.4	1160.4	1166.3
30.5°	1153.8	1147.5	1141.4	1148.5	1151.5	1157.4
31°	1145.2	1138.6	1132.5	1139.8	1142.6	1148.5
31.5°	1136.3	1129.7	1122.8	1130.4	1133.5	1139.6
32°	1127.1	1120.3	1113.9	1121.3	1124.3	1130.7
32.5°	1118.0	1111.1	1104.5	1111.9	1115.2	1121.3
33°	1108.6	1101.7	1095.1	1102.5	1105.8	1112.1
33.5°	1099.1	1092.0	1085.2	1093.0	1096.3	1102.7
34°	1089.2	1082.4	1075.2	1083.1	1086.4	1092.8
34.5°	1079.3	1072.2	1065.3	1073.2	1076.5	1083.1
35°	1069.4	1062.0	1054.9	1062.8	1066.3	1072.7
35.5°	1059.0	1051.6	1044.2	1052.3	1055.9	1062.5
36°	1048.3	1040.9	1033.5	1042.2	1045.5	1052.1
36.5°	1037.3	1030.0	1022.6	1031.0	1034.3	1041.1
37°	1025.9	1018.5	1011.1	1019.8	1023.1	1030.0
37.5°	1012.9	1006.3	998.9	1008.3	1011.6	1018.0
38°	998.4	992.8	984.9	996.4	999.2	1005.5
38.5°	983.7	978.3	969.7	982.4	984.4	991.5
39°	968.1	962.5	954.7	966.9	969.7	976.8
39.5°	952.1	945.3	938.4	950.8	953.9	960.5
40°	935.6	927.4	920.8	934.1	937.4	943.0
40.5°	918.8	909.6	903.3	916.8	919.6	924.9
41°	901.5	891.6	885.0	899.2	901.8	906.6
41.5°	883.7	873.0	866.4	881.7	883.2	888.3
42°	865.6	855.2	847.8	863.3	864.4	868.9
42.5°	847.6	837.4	828.5	845.0	845.3	850.4
43°	829.3	819.3	809.4	826.5	826.5	831.5
43.5°	811.2	800.8	789.8	807.4	806.9	812.7



TEST NUMBER: P775948

CATALOG NUMBER: HCDJBLS1525CSD-HCD41TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	756.3	745.6	732.6	748.9	748.1	755.5
45.5°	737.9	727.0	713.5	729.0	728.3	736.4
46°	719.6	708.9	694.7	709.2	708.7	717.6
46.5°	701.3	689.9	675.6	689.9	689.1	698.5
47°	682.2	671.0	657.0	669.5	669.5	678.9
47.5°	663.9	652.5	638.0	649.7	650.2	659.8
48°	645.3	633.9	619.4	629.3	631.1	640.8
48.5°	626.5	615.1	600.3	610.2	612.0	621.7
49°	607.4	597.0	582.5	590.1	593.2	602.9
49.5°	588.6	579.0	564.5	571.1	574.4	584.0
50°	569.8	560.6	545.9	551.5	555.8	565.5
50.5°	551.2	542.6	527.8	532.9	537.2	546.9
51°	532.9	525.3	510.0	514.1	518.7	528.3
51.5°	514.3	507.5	492.5	496.0	500.4	510.5
52°	496.0	490.2	474.9	478.0	482.5	492.5
52.5°	478.0	472.9	457.4	460.9	465.0	474.9
53°	460.2	455.8	440.3	443.4	447.7	457.4
53.5°	442.6	439.0	423.8	426.3	430.4	440.1
54°	425.1	422.0	407.0	410.0	413.4	423.0
54.5°	408.0	405.7	391.0	394.0	396.8	406.2
55°	391.2	389.7	375.2	378.0	381.1	389.7
55.5°	374.7	373.7	359.7	363.0	365.3	373.7
56°	358.4	357.6	344.2	348.0	349.5	357.9
56.5°	342.6	342.4	329.4	333.5	334.5	342.1
57°	326.9	327.1	314.9	319.2	320.0	326.9
57.5°	311.6	312.4	300.7	305.2	305.8	311.9
58°	297.1	297.9	287.2	292.3	291.8	297.1
58.5°	282.6	283.9	274.0	279.3	278.8	282.9
59°	268.6	269.9	261.0	266.6	265.6	269.1
59.5°	254.9	256.4	248.8	254.4	253.4	255.6
60°	241.9	243.4	236.6	242.9	241.1	242.4
60.5°	230.5	230.7	224.9	231.5	229.7	230.0
61°	218.8	218.5	213.7	220.5	218.3	217.5
61.5°	207.1	206.8	203.2	209.9	207.6	205.8
62°	195.6	195.4	193.1	199.9	197.1	194.6
62.5°	183.9	184.7	183.1	190.3	187.2	183.9
63°	174.0	174.5	173.7	180.9	177.6	173.7
63.5°	164.8	164.6	164.8	172.0	168.6	164.3
64°	155.7	155.4	156.4	163.3	160.0	155.2
64.5°	147.3	147.0	148.6	155.2	151.9	146.5
65°	139.7	139.4	140.9	147.3	143.7	139.1
65.5°	132.5	132.5	133.8	140.2	137.1	132.0
66°	125.9	126.2	127.4	133.3	130.2	125.2



TEST NUMBER: P775948

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	110.4	111.4	111.2	115.5	113.2	108.6
68°	106.6	107.3	107.1	110.7	108.4	104.3
68.5°	103.0	103.8	103.3	106.3	104.3	100.2
69°	100.0	100.7	100.0	102.3	100.7	97.4
69.5°	97.4	97.9	97.2	99.0	97.7	95.6
70°	95.9	95.9	95.1	96.4	95.4	93.9
70.5°	94.4	94.4	93.6	94.6	93.4	92.1
71°	92.6	92.6	92.1	93.1	91.6	90.3
71.5°	91.1	91.1	90.6	91.3	90.0	88.8
72°	89.3	89.3	88.8	89.8	88.3	87.0
72.5°	87.5	87.8	87.0	88.0	86.5	85.5
73°	85.7	86.2	85.5	86.5	84.7	83.4
73.5°	83.9	84.5	83.7	85.0	82.7	81.4
74°	82.2	82.7	82.2	82.9	80.6	79.1
74.5°	80.1	80.9	80.1	80.9	78.3	76.8
75°	78.1	78.9	78.1	79.1	76.3	74.8
75.5°	76.1	76.8	76.1	76.8	73.8	72.2
76°	74.0	74.8	74.0	74.8	71.5	69.7
76.5°	71.7	72.5	72.0	72.5	68.9	67.4
77°	69.4	70.5	69.7	70.2	66.4	64.6
77.5°	67.2	68.2	67.7	67.9	63.8	61.8
78°	64.9	65.9	65.4	65.6	61.0	59.0
78.5°	62.3	63.6	62.8	63.1	58.3	56.2
79°	59.8	61.0	60.5	60.5	55.5	53.2
79.5°	57.2	58.5	58.0	57.7	52.4	50.1
80°	54.7	56.0	55.2	55.2	49.3	46.8
80.5°	51.9	53.2	52.7	52.4	46.3	43.8
81°	49.3	50.6	50.1	49.6	43.2	40.7
81.5°	46.6	47.8	47.3	46.8	39.9	37.1
82°	43.5	45.0	44.5	43.8	36.6	33.8
82.5°	40.7	42.2	41.7	41.0	33.3	30.5
83°	37.9	39.2	38.7	38.2	30.3	27.0
83.5°	34.8	36.4	35.9	35.4	27.0	23.4
84°	31.8	33.3	33.1	32.3	23.7	19.8
84.5°	28.7	30.3	30.0	29.5	20.6	16.3
85°	25.7	27.2	27.0	27.0	17.8	13.0
85.5°	22.6	24.2	23.9	24.2	15.5	9.9
86°	19.3	21.1	20.9	21.4	13.5	8.6
86.5°	16.3	17.8	17.6	18.6	11.7	7.4
87°	13.2	14.8	14.5	15.5	9.7	6.1
87.5°	9.9	11.4	11.2	12.7	7.9	4.6
88°	6.9	8.4	8.1	9.7	6.1	3.3
88.5°	4.1	6.4	6.1	7.4	4.3	2.3



TEST NUMBER: P775948

CATALOG NUMBER: HCDJBL1525CSD-HCD41TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.3	0.3	0.3	0.3	0.0



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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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Scaled Data Report





21.5°	1295.5	1302.1	1310.5	1318.7	1324.5	1328.6	1324.0	1322.5	1318.7	1311.5	1302.1
22°	1288.9	1296.0	1304.4	1312.6	1318.4	1322.7	1317.9	1316.6	1312.8	1305.4	1295.8



44°	793.6	810.9	833.3	853.2	858.3	867.7	850.6	847.6	840.2	833.8	816.5
44.5°	774.3	792.1	814.2	833.6	838.2	849.4	832.1	828.7	820.4	814.5	797.7



66.5°	119.0	120.1	122.9	124.9	123.4	125.4	120.1	120.8	118.8	123.1	122.9
67°	113.7	114.5	116.8	118.0	116.5	118.5	113.7	114.5	111.9	116.8	117.0



89°	1.3	1.5	2.5	2.8	0.5	0.8	0.0	0.3	0.3	0.8	1.5
89.5°	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.0	0.3	0.0

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21.5°	1292.5	1288.4	1284.1	1289.4	1291.2	1295.5
22°	1286.1	1281.8	1277.5	1282.8	1284.6	1288.9



44°	792.6	782.2	770.8	788.0	787.0	793.6
44.5°	774.6	763.9	751.4	768.5	767.4	774.3

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66.5°	120.3	120.8	121.6	126.9	123.9	119.0
67°	115.0	115.5	116.0	121.1	118.3	113.7



89°	1.8	4.3	4.1	5.1	2.5	1.3
89.5°	0.0	2.3	2.3	2.8	1.0	0.3

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(END OF REPORT)