

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: P775930

Luminaire Tested: HCDJBL51525CSD-HCD41TRH-2500lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775930
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B029)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBLS1525CSD-HCD41TRH-2500lm-2700K
Description: 4 INCH ROUND SHALLOW-WIDE HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

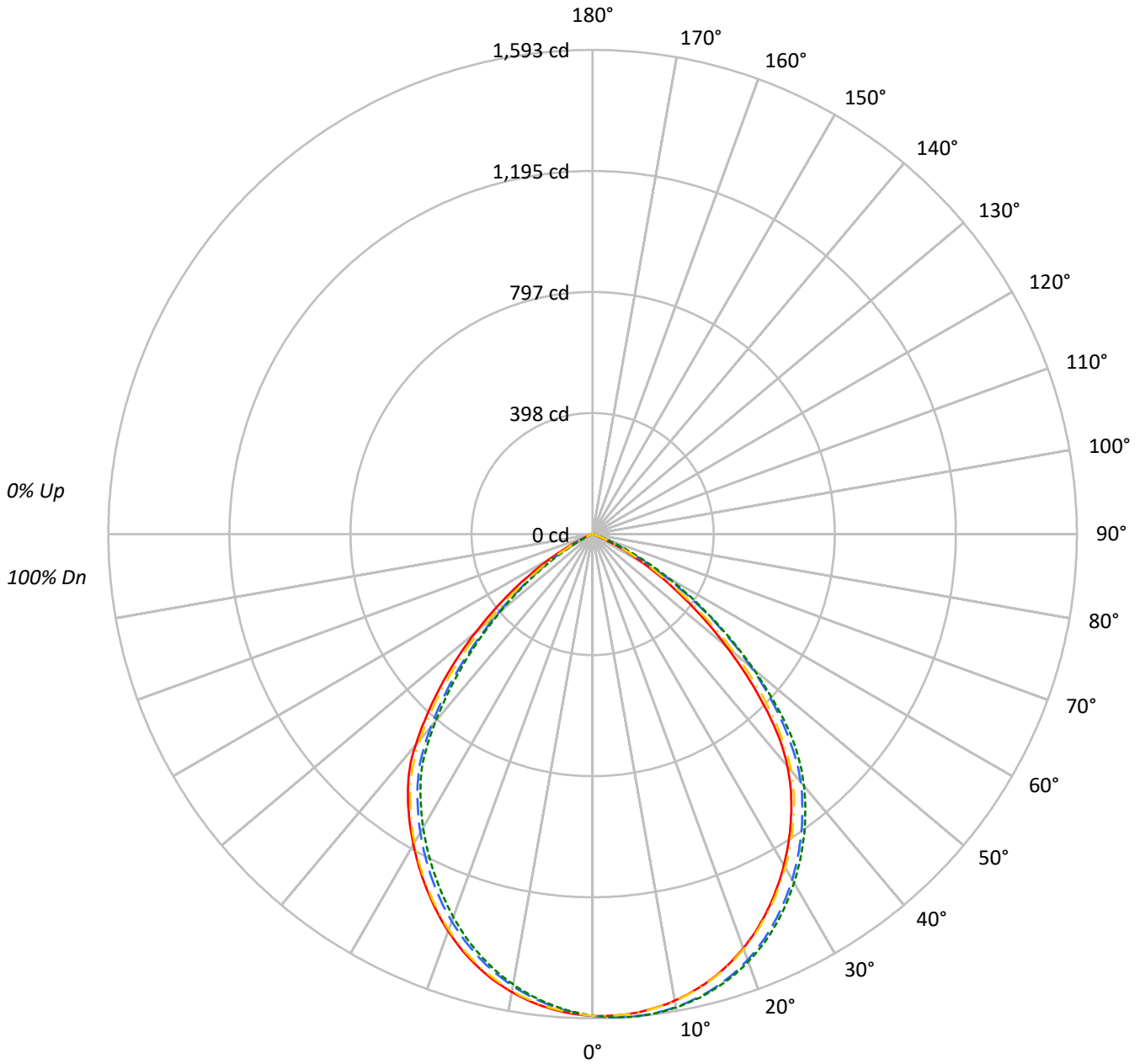
Lumens per Lamp: N/A
Luminaire Lumens: 2834.7 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.22
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



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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									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	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	77	95	87	82	77	85	80	76	82	78	74	80	76	73	71																			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63																			
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57																			
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51																			
7	73	62	54	49	72	61	54	49	59	53	48	58	52	48	57	52	48	46																			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38																			
10	60	49	42	37	59	48	41	37	47	41	37	46	41	36	46	40	36	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	199422	199422	199422	199422
5°	199817	201232	198074	196393
10°	199163	202127	195533	192249
15°	197401	201948	191656	186692
20°	194180	200515	186131	179515
25°	189252	197403	179157	171089
30°	182811	192562	171433	162001
35°	174728	186235	162714	151437
40°	163760	177658	148793	131954
45°	142045	162316	125439	105862
50°	112343	135113	98246	77473
55°	80700	104418	69005	49170
60°	49333	71181	39517	23609
65°	20696	38027	14800	6998
70°	4636	11149	4268	3017
75°	3161	4133	2966	1994
80°	2247	3189	2102	1377
85°	722	2744	289	289

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 162316 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.3	5.3
10°-20°	420.2	14.8
20°-30°	610.5	21.5
30°-40°	683.9	24.1
40°-50°	575.8	20.3
50°-60°	310.0	10.9
60°-70°	76.4	2.7
70°-80°	7.3	0.3
80°-90°	1.2	0.0
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°	1180.0	41.6
0°-40°	1863.9	65.8
0°-60°	2749.7	97.0
0°-90°	2834.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2834.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1585	1585	1585	1585	1585	
5°	1582	1593	1568	1555	1582	150
15°	1515	1550	1471	1433	1515	427
25°	1363	1422	1290	1232	1363	627
35°	1137	1212	1059	986	1137	709
45°	798	912	705	595	798	610
55°	368	476	314	224	368	332
65°	70	128	50	24	70	78
75°	6	8	6	4	6	7
85°	0	2	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBL5125CSD-HCD41TRH-2500lm-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1584.6	1584.6	1584.6	1584.6	1584.6	1584.6	1584.6	1584.6	1584.6	1584.6	1584.6
0.5°	1585.6	1586.6	1587.0	1586.6	1586.1	1585.1	1584.6	1584.1	1584.1	1584.1	1583.7
1°	1585.8	1587.8	1588.5	1588.3	1587.5	1586.6	1585.1	1583.9	1583.2	1582.4	1581.5
1.5°	1586.1	1588.5	1590.0	1589.7	1589.0	1587.5	1585.6	1583.7	1582.0	1580.5	1579.3
2°	1586.1	1589.2	1590.9	1590.9	1590.2	1588.3	1585.6	1582.9	1580.7	1578.6	1576.9
2.5°	1585.8	1589.7	1591.9	1591.9	1591.2	1588.7	1585.6	1582.0	1579.1	1576.4	1574.0
3°	1585.4	1590.0	1592.4	1592.6	1591.9	1589.2	1585.1	1581.0	1577.4	1574.0	1571.3
3.5°	1584.6	1590.0	1592.9	1593.3	1592.4	1589.2	1584.6	1579.8	1575.2	1571.1	1568.1
4°	1583.9	1589.7	1593.1	1593.6	1592.9	1589.2	1584.1	1578.3	1573.0	1568.4	1565.0
4.5°	1582.9	1589.2	1593.1	1593.8	1593.1	1589.0	1583.2	1576.6	1570.6	1565.5	1561.4
5°	1581.7	1588.7	1592.9	1594.1	1592.9	1588.5	1582.0	1574.7	1567.9	1562.1	1557.7
5.5°	1580.3	1588.0	1592.4	1593.8	1592.9	1587.8	1580.7	1572.8	1565.0	1558.7	1554.1
6°	1578.6	1587.0	1592.1	1593.3	1592.4	1587.0	1579.1	1570.3	1562.1	1555.1	1550.0
6.5°	1576.6	1585.8	1591.2	1592.6	1591.7	1585.8	1577.4	1567.9	1558.7	1551.2	1545.6
7°	1574.9	1584.4	1590.2	1591.9	1590.9	1584.6	1575.4	1565.2	1555.3	1547.3	1541.0
7.5°	1572.5	1582.9	1589.0	1590.9	1589.7	1583.2	1573.5	1562.3	1551.7	1543.0	1536.4
8°	1570.1	1581.2	1587.5	1589.7	1588.5	1581.5	1571.1	1559.2	1547.8	1538.3	1531.6
8.5°	1567.4	1579.1	1586.1	1588.3	1587.0	1579.8	1568.4	1555.8	1543.4	1533.5	1526.5
9°	1564.8	1576.9	1584.4	1586.6	1585.4	1577.6	1565.7	1552.2	1539.3	1528.7	1521.1
9.5°	1561.6	1574.4	1582.2	1584.9	1583.7	1575.4	1562.8	1548.5	1534.7	1523.8	1515.8
10°	1558.5	1572.0	1580.0	1582.7	1581.7	1573.0	1559.7	1544.6	1530.1	1518.5	1510.2
10.5°	1555.1	1569.1	1577.6	1580.5	1579.3	1570.3	1556.3	1540.3	1525.0	1512.9	1504.2
11°	1551.4	1566.2	1574.9	1578.1	1576.9	1567.4	1552.6	1535.9	1519.9	1507.3	1498.1
11.5°	1547.6	1562.8	1572.3	1575.4	1574.2	1564.3	1549.0	1531.3	1514.6	1501.3	1492.1
12°	1543.7	1559.4	1569.1	1572.5	1571.5	1560.9	1545.1	1526.7	1509.0	1495.2	1485.5
12.5°	1539.3	1555.8	1565.7	1569.4	1568.4	1557.5	1540.8	1521.4	1503.2	1489.2	1478.7
13°	1535.0	1551.9	1562.3	1566.2	1565.2	1553.9	1536.4	1516.3	1497.2	1482.6	1472.2
13.5°	1530.1	1547.8	1558.5	1562.6	1561.6	1550.0	1531.8	1511.0	1491.1	1475.6	1464.9
14°	1525.3	1543.4	1554.8	1558.9	1558.0	1546.1	1527.2	1505.4	1484.3	1468.8	1457.7
14.5°	1520.2	1539.1	1550.7	1554.8	1554.1	1541.7	1522.1	1499.3	1477.8	1461.5	1450.4
15°	1515.1	1534.5	1546.3	1550.7	1550.0	1537.1	1517.0	1493.0	1471.0	1454.5	1442.9
15.5°	1509.5	1529.4	1541.7	1546.3	1545.6	1532.5	1511.5	1486.7	1463.7	1446.5	1434.6
16°	1503.7	1524.3	1537.1	1542.0	1541.0	1527.4	1506.1	1480.4	1456.4	1438.8	1426.6
16.5°	1497.6	1519.0	1532.0	1537.1	1536.4	1522.4	1500.1	1473.4	1448.7	1431.0	1418.4
17°	1491.6	1513.1	1527.0	1532.0	1531.6	1517.0	1494.0	1466.4	1441.2	1422.8	1410.2
17.5°	1485.0	1507.6	1521.4	1526.7	1526.2	1511.5	1487.7	1459.4	1432.9	1414.3	1401.2
18°	1478.5	1501.5	1515.8	1521.1	1520.9	1505.6	1481.2	1452.1	1424.7	1405.6	1392.5
18.5°	1471.7	1495.2	1510.0	1515.3	1515.3	1499.8	1474.6	1444.3	1416.2	1396.6	1383.3
19°	1464.7	1488.7	1503.7	1509.5	1509.5	1493.5	1467.6	1436.6	1407.5	1387.4	1374.3
19.5°	1457.4	1481.9	1497.4	1503.2	1503.5	1487.2	1460.6	1428.3	1398.8	1378.4	1364.6
20°	1449.9	1474.9	1490.9	1496.7	1497.2	1480.4	1453.1	1420.1	1389.8	1369.2	1355.2
20.5°	1442.2	1467.8	1483.8	1490.1	1490.6	1473.7	1445.8	1411.6	1380.6	1359.3	1345.5
21°	1434.2	1460.3	1476.8	1483.3	1483.8	1466.4	1438.0	1403.1	1370.9	1349.6	1335.5



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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°	1409.0	1436.8	1454.0	1461.1	1462.3	1443.9	1413.3	1376.0	1341.8	1319.1	1304.8
23°	1400.5	1428.3	1446.0	1453.1	1454.8	1435.9	1404.8	1366.8	1331.9	1308.9	1294.4
23.5°	1391.3	1419.9	1437.8	1445.3	1446.8	1427.9	1395.9	1357.1	1321.5	1298.2	1283.4
24°	1382.1	1411.1	1429.3	1436.8	1438.5	1419.4	1386.9	1347.7	1311.3	1287.6	1272.5
24.5°	1372.6	1401.9	1420.6	1428.3	1430.0	1410.7	1377.7	1337.5	1300.9	1276.9	1261.6
25°	1362.9	1393.0	1411.6	1419.6	1421.6	1401.9	1368.5	1327.8	1290.2	1266.2	1250.7
25.5°	1353.2	1383.8	1402.7	1410.9	1413.1	1393.2	1359.0	1317.6	1279.6	1254.9	1239.6
26°	1343.3	1374.1	1393.2	1401.7	1403.9	1383.8	1349.6	1307.4	1269.2	1243.7	1228.2
26.5°	1333.1	1364.4	1384.0	1392.5	1394.4	1374.3	1339.7	1296.8	1258.0	1232.3	1216.8
27°	1323.2	1354.4	1374.3	1383.0	1385.2	1364.6	1329.7	1286.6	1246.9	1221.2	1205.2
27.5°	1312.5	1344.3	1364.4	1373.6	1375.5	1354.9	1319.3	1275.9	1236.0	1209.8	1193.6
28°	1301.9	1334.1	1354.2	1363.7	1365.8	1344.8	1309.4	1265.3	1224.8	1198.2	1181.9
28.5°	1291.2	1323.9	1344.0	1353.5	1355.9	1335.1	1299.0	1254.1	1213.4	1186.8	1169.8
29°	1280.3	1313.3	1333.6	1343.3	1345.7	1324.9	1288.3	1243.2	1202.3	1175.1	1157.9
29.5°	1269.2	1302.6	1323.2	1333.1	1335.5	1314.5	1277.4	1232.3	1190.9	1163.0	1146.1
30°	1258.0	1291.4	1312.3	1322.2	1325.1	1303.6	1267.0	1221.4	1179.7	1151.4	1133.7
30.5°	1246.9	1280.5	1301.6	1312.0	1314.5	1292.9	1255.8	1210.0	1167.9	1139.5	1121.4
31°	1235.2	1269.6	1290.5	1301.1	1303.8	1282.2	1244.7	1198.6	1156.2	1127.4	1108.8
31.5°	1223.8	1258.0	1279.6	1290.0	1292.7	1271.1	1233.3	1187.3	1144.6	1115.3	1096.2
32°	1212.0	1246.6	1267.9	1278.6	1281.5	1259.7	1222.4	1176.1	1133.0	1102.9	1083.3
32.5°	1200.3	1235.0	1256.8	1267.7	1270.4	1248.6	1210.8	1164.5	1121.1	1090.3	1070.2
33°	1187.7	1223.1	1245.2	1256.3	1259.0	1237.4	1199.4	1153.1	1108.8	1077.7	1057.4
33.5°	1175.9	1211.5	1233.3	1244.7	1247.3	1225.5	1187.7	1140.7	1096.4	1064.9	1043.8
34°	1163.0	1199.4	1221.2	1233.1	1236.0	1214.2	1175.9	1128.9	1084.0	1052.3	1030.5
34.5°	1150.7	1186.8	1209.5	1221.2	1223.8	1202.3	1164.0	1116.5	1071.7	1039.0	1017.2
35°	1137.3	1173.9	1197.2	1209.3	1212.2	1190.2	1151.6	1104.1	1059.1	1025.9	1003.1
35.5°	1125.2	1161.6	1184.6	1196.7	1200.1	1177.8	1139.0	1091.8	1046.2	1012.6	988.8
36°	1111.9	1148.7	1171.8	1184.6	1187.7	1165.5	1126.7	1079.2	1033.2	999.0	975.0
36.5°	1098.8	1135.6	1159.4	1171.8	1174.9	1152.9	1113.8	1066.6	1020.1	984.9	959.7
37°	1084.8	1122.3	1146.3	1158.7	1161.8	1139.8	1100.8	1053.3	1006.5	969.9	943.0
37.5°	1071.9	1109.0	1133.2	1145.8	1149.0	1126.9	1087.9	1039.9	992.5	953.4	925.3
38°	1057.1	1095.7	1119.7	1132.7	1136.1	1113.8	1074.3	1026.4	977.2	936.2	906.7
38.5°	1042.6	1082.1	1106.6	1119.2	1122.8	1100.3	1060.5	1012.1	961.0	918.5	887.3
39°	1027.3	1067.6	1093.2	1105.8	1109.5	1086.7	1046.7	996.6	943.7	900.1	867.7
39.5°	1012.8	1052.8	1079.2	1092.3	1095.9	1072.4	1032.2	979.9	925.6	880.8	848.0
40°	996.8	1038.0	1064.7	1077.7	1081.4	1058.4	1016.4	962.9	905.7	861.1	828.2
40.5°	980.1	1022.5	1049.6	1063.2	1067.1	1043.1	999.7	944.7	886.1	841.0	807.3
41°	962.9	1006.3	1034.1	1048.4	1052.3	1028.1	982.5	926.3	866.5	820.4	786.7
41.5°	945.0	988.8	1017.2	1032.2	1037.0	1012.1	965.1	907.9	846.6	800.6	766.6
42°	926.5	971.1	999.7	1015.5	1021.3	995.4	946.7	889.0	826.2	778.5	745.1
42.5°	906.9	952.7	981.8	998.3	1004.8	977.7	928.2	869.4	805.9	757.4	724.0
43°	886.1	933.6	963.6	980.1	987.8	959.3	909.3	848.8	786.0	736.6	702.2
43.5°	864.5	913.9	945.2	961.7	969.7	940.6	890.0	828.7	766.1	715.7	681.3



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CATALOG NUMBER: HCDJBLS1525CSD-HCD41TRH-2500lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	798.1	853.4	887.8	904.7	912.0	880.5	829.6	767.6	704.8	652.5	616.6
45.5°	775.1	832.8	868.6	885.4	890.7	859.7	808.8	747.2	685.0	631.9	595.1
46°	752.1	811.5	848.5	865.5	869.6	838.1	787.7	726.7	664.1	611.1	573.3
46.5°	729.6	789.2	828.4	845.1	847.8	816.5	766.4	706.1	643.8	590.5	552.2
47°	706.8	767.6	808.3	824.8	825.3	794.3	744.3	685.0	623.4	569.9	530.9
47.5°	684.2	745.5	787.0	803.9	803.0	771.7	722.5	664.4	603.1	550.5	509.8
48°	661.5	723.5	766.1	782.9	780.0	749.2	700.5	643.8	582.2	529.7	489.2
48.5°	639.2	701.2	745.1	761.5	757.4	726.4	678.4	623.2	562.1	509.6	469.3
49°	617.4	679.2	724.5	740.2	734.6	703.6	656.1	601.9	542.0	489.4	448.7
49.5°	595.1	656.4	702.7	718.7	712.4	680.9	634.1	581.5	522.2	470.1	429.1
50°	573.8	634.1	681.1	696.4	690.1	657.8	611.6	560.2	501.8	450.7	409.5
50.5°	551.5	612.0	659.3	674.1	668.7	635.1	589.3	539.6	481.9	431.3	390.6
51°	530.4	590.2	637.7	652.3	645.7	612.8	567.0	518.3	462.5	412.4	371.9
51.5°	509.1	567.9	615.4	629.7	623.9	591.2	545.4	498.4	443.4	393.7	354.2
52°	488.5	546.9	594.4	608.4	602.6	569.4	523.6	477.8	424.3	375.1	336.3
52.5°	467.4	525.5	572.1	585.9	581.8	546.9	502.3	457.2	405.1	356.7	319.1
53°	447.0	504.2	550.0	564.1	559.5	525.3	480.7	436.9	386.5	338.7	301.7
53.5°	426.7	482.9	527.7	541.3	537.9	504.2	460.1	417.5	368.0	321.3	285.2
54°	406.8	462.1	506.2	520.0	516.8	483.1	438.8	397.6	350.1	303.8	269.2
54.5°	386.9	442.0	484.6	498.2	497.0	462.3	418.9	377.7	331.9	286.9	253.4
55°	367.8	421.6	463.3	477.3	475.9	441.5	398.8	358.8	314.5	270.6	238.7
55.5°	348.4	401.5	442.0	455.5	455.0	421.6	379.4	340.2	297.1	254.4	224.9
56°	330.3	381.9	420.6	435.7	434.7	401.2	360.1	321.5	280.1	238.9	210.8
56.5°	311.6	362.7	400.0	414.8	415.3	381.6	340.9	303.1	263.4	224.4	196.7
57°	294.1	343.6	378.7	394.5	394.9	362.2	322.5	285.7	247.1	210.1	182.9
57.5°	276.5	324.7	358.8	373.9	375.3	343.6	304.6	268.5	231.2	195.5	168.9
58°	259.5	306.5	339.2	355.2	356.4	325.2	287.1	251.3	216.1	181.2	156.5
58.5°	243.0	288.8	319.8	335.6	337.0	307.2	270.2	235.0	201.1	166.7	144.7
59°	227.0	270.6	300.7	316.4	318.6	289.8	253.2	219.8	186.1	153.6	133.0
59.5°	211.5	253.4	282.0	297.3	300.7	272.6	237.0	204.3	171.1	141.3	121.9
60°	196.0	236.7	263.9	279.9	282.8	255.6	222.2	189.0	157.0	129.1	111.5
60.5°	181.2	220.0	246.2	261.9	265.3	239.6	207.4	173.7	143.7	117.8	101.0
61°	166.9	203.8	229.0	244.0	248.1	224.6	192.6	159.9	130.8	106.6	91.3
61.5°	153.4	188.5	212.7	227.3	232.1	209.8	177.8	146.8	118.5	96.4	82.4
62°	140.3	173.5	196.7	210.8	216.4	194.8	163.1	134.0	106.9	86.5	73.9
62.5°	127.2	158.9	181.0	194.6	200.6	180.0	149.7	121.9	95.2	77.3	65.7
63°	114.6	144.7	166.0	179.1	184.9	165.0	136.9	109.8	84.8	68.3	57.7
63.5°	102.2	131.1	151.7	163.6	169.1	151.7	124.8	98.9	74.9	60.3	50.6
64°	90.1	117.8	137.9	149.3	154.6	138.6	112.9	88.7	65.7	52.6	44.1
64.5°	79.7	104.9	124.8	135.2	140.8	125.8	102.2	79.0	57.4	45.6	37.8
65°	69.5	92.8	112.2	122.1	127.7	113.9	91.6	69.8	49.7	39.3	32.5
65.5°	59.4	82.4	100.1	109.5	114.8	102.2	81.9	61.3	42.2	33.4	28.6
66°	49.2	72.7	88.7	97.2	102.5	91.1	72.2	53.5	35.9	28.3	24.7



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBLS1525CSD-HCD41TRH-2500lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	25.4	44.1	60.8	67.4	70.0	61.5	48.2	33.4	23.5	18.7	13.1
68°	20.4	37.1	51.4	58.4	60.6	53.1	41.2	28.3	20.1	15.3	11.4
68.5°	16.7	30.8	42.2	49.2	51.9	45.3	34.9	25.2	16.7	12.1	10.4
69°	14.5	25.4	34.9	40.0	43.6	38.3	29.6	22.3	13.3	10.9	9.7
69.5°	13.3	21.1	28.6	33.2	36.3	32.0	25.9	19.1	12.4	10.2	9.0
70°	12.6	17.4	23.3	27.4	30.3	28.1	22.5	16.0	11.6	9.4	8.5
70.5°	11.9	14.5	18.7	22.3	26.7	24.2	19.1	13.1	10.9	9.0	8.0
71°	11.1	12.4	15.3	18.2	23.0	20.4	15.7	11.9	10.2	8.5	7.3
71.5°	10.4	11.4	12.8	15.0	19.4	16.5	12.4	11.1	9.4	7.8	6.8
72°	9.7	10.7	11.4	12.6	15.7	12.6	11.4	10.4	9.0	7.3	6.5
72.5°	9.2	9.9	10.4	11.4	12.1	11.4	10.7	9.7	8.2	6.8	6.1
73°	8.7	9.2	9.7	10.7	11.1	10.7	9.9	9.2	7.8	6.3	5.6
73.5°	8.0	8.7	9.2	9.9	10.4	9.9	9.2	8.5	7.3	6.1	5.3
74°	7.5	8.2	8.7	9.2	9.7	9.2	8.7	8.0	6.8	5.6	4.8
74.5°	7.0	7.5	8.0	8.7	9.2	8.7	8.0	7.5	6.3	5.1	4.6
75°	6.5	7.0	7.5	8.0	8.5	8.0	7.5	7.0	6.1	4.8	4.1
75.5°	6.1	6.5	7.0	7.5	8.0	7.5	7.0	6.5	5.6	4.6	3.9
76°	5.8	6.3	6.5	7.0	7.5	7.0	6.5	6.1	5.1	4.1	3.6
76.5°	5.3	5.8	6.1	6.5	7.0	6.5	6.1	5.6	4.8	3.9	3.4
77°	5.1	5.3	5.8	6.1	6.5	6.1	5.8	5.3	4.6	3.6	3.1
77.5°	4.6	5.1	5.3	5.8	6.1	5.8	5.3	4.8	4.1	3.4	2.9
78°	4.4	4.8	5.1	5.3	5.6	5.3	4.8	4.6	3.9	3.1	2.7
78.5°	4.1	4.4	4.6	5.1	5.3	5.1	4.6	4.1	3.6	2.9	2.4
79°	3.6	4.1	4.4	4.6	4.8	4.6	4.4	3.9	3.4	2.7	2.2
79.5°	3.4	3.9	4.1	4.4	4.6	4.4	3.9	3.6	3.1	2.4	2.2
80°	3.1	3.4	3.6	4.1	4.4	4.1	3.6	3.4	2.9	2.2	1.9
80.5°	2.9	3.1	3.4	3.9	3.9	3.9	3.4	3.1	2.7	1.9	1.7
81°	2.7	2.9	3.1	3.6	3.6	3.4	3.1	2.9	2.4	1.7	1.5
81.5°	2.4	2.7	2.9	3.4	3.4	3.1	2.9	2.7	2.2	1.5	1.5
82°	1.9	2.4	2.7	3.1	3.1	2.9	2.7	2.4	1.9	1.2	1.2
82.5°	1.7	2.2	2.7	2.9	2.9	2.9	2.4	2.2	1.5	1.0	1.2
83°	1.5	1.9	2.4	2.7	2.7	2.7	2.4	1.9	1.2	1.0	1.0
83.5°	1.0	1.7	2.2	2.4	2.4	2.4	2.2	1.7	1.0	0.7	1.0
84°	0.7	1.5	1.9	2.2	2.4	2.2	1.9	1.5	0.7	0.5	0.7
84.5°	0.5	1.2	1.7	1.9	2.2	1.9	1.7	1.2	0.5	0.5	0.5
85°	0.5	1.0	1.7	1.9	1.9	1.9	1.7	1.0	0.2	0.5	0.5
85.5°	0.2	1.0	1.5	1.7	1.7	1.7	1.5	1.0	0.2	0.2	0.2
86°	0.2	0.7	1.5	1.5	1.7	1.5	1.2	0.7	0.2	0.2	0.2
86.5°	0.2	0.7	1.2	1.5	1.5	1.5	1.2	0.7	0.2	0.2	0.0
87°	0.2	0.7	1.0	1.2	1.2	1.2	1.0	0.5	0.0	0.0	0.0
87.5°	0.0	0.5	1.0	1.0	1.2	1.0	0.7	0.5	0.0	0.0	0.0
88°	0.0	0.2	0.7	1.0	1.0	1.0	0.7	0.2	0.0	0.0	0.0
88.5°	0.0	0.2	0.5	0.7	0.7	0.7	0.5	0.2	0.0	0.0	0.0



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-2700K

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	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.2



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBL1525CSD-HCD41TRH-2500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1584.6	1584.6	1584.6	1584.6	1584.6	1584.6
0.5°	1582.7	1582.0	1582.0	1582.9	1583.9	1585.6
1°	1580.5	1579.8	1580.3	1581.7	1583.7	1585.8
1.5°	1578.1	1577.4	1578.1	1580.3	1583.2	1586.1
2°	1575.4	1574.7	1575.9	1578.8	1582.2	1586.1
2.5°	1572.8	1572.0	1573.5	1576.9	1581.2	1585.8
3°	1569.6	1568.9	1571.1	1574.9	1580.0	1585.4
3.5°	1566.2	1565.7	1568.1	1572.8	1578.6	1584.6
4°	1562.8	1562.1	1565.2	1570.3	1576.9	1583.9
4.5°	1559.2	1558.5	1561.8	1567.7	1575.2	1582.9
5°	1555.3	1554.6	1558.5	1565.0	1573.2	1581.7
5.5°	1551.2	1550.5	1554.8	1562.1	1570.8	1580.3
6°	1546.8	1546.3	1550.9	1558.9	1568.4	1578.6
6.5°	1542.5	1542.0	1546.8	1555.5	1565.7	1576.6
7°	1537.9	1537.1	1542.5	1551.7	1563.1	1574.9
7.5°	1533.0	1532.3	1538.1	1547.8	1559.9	1572.5
8°	1527.9	1527.0	1533.3	1543.7	1557.0	1570.1
8.5°	1522.6	1521.9	1528.4	1539.6	1553.6	1567.4
9°	1517.3	1516.3	1523.1	1535.2	1550.0	1564.8
9.5°	1511.7	1510.5	1517.8	1530.4	1545.9	1561.6
10°	1505.9	1504.4	1512.2	1525.5	1542.0	1558.5
10.5°	1499.8	1498.4	1506.4	1520.7	1537.9	1555.1
11°	1493.5	1492.1	1500.5	1515.6	1533.5	1551.4
11.5°	1487.0	1485.5	1494.2	1510.0	1528.9	1547.6
12°	1480.4	1478.7	1487.9	1504.2	1524.1	1543.7
12.5°	1473.4	1471.5	1481.2	1498.1	1518.7	1539.3
13°	1466.4	1464.4	1474.1	1492.3	1513.6	1535.0
13.5°	1459.1	1456.9	1467.1	1485.8	1508.3	1530.1
14°	1451.6	1449.2	1459.8	1479.2	1502.7	1525.3
14.5°	1443.9	1441.4	1452.1	1472.4	1496.7	1520.2
15°	1435.9	1432.9	1444.3	1465.7	1490.6	1515.1
15.5°	1427.9	1424.5	1436.1	1458.4	1484.1	1509.5
16°	1419.4	1416.0	1428.1	1450.9	1477.5	1503.7
16.5°	1410.7	1407.3	1419.4	1443.4	1471.0	1497.6
17°	1401.9	1398.3	1410.9	1435.6	1464.2	1491.6
17.5°	1393.0	1389.1	1401.9	1427.6	1456.7	1485.0
18°	1384.0	1379.6	1393.0	1419.1	1449.4	1478.5
18.5°	1374.6	1369.9	1383.5	1410.7	1441.7	1471.7
19°	1365.1	1360.3	1374.1	1401.9	1433.9	1464.7
19.5°	1355.2	1350.6	1364.6	1393.2	1425.9	1457.4
20°	1345.2	1340.4	1354.9	1384.0	1417.7	1449.9
20.5°	1335.3	1330.0	1345.0	1374.8	1409.2	1442.2
21°	1325.1	1319.6	1334.6	1365.3	1400.5	1434.2



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1293.6	1287.6	1303.8	1336.0	1373.6	1409.0
23°	1282.7	1276.7	1292.9	1326.1	1364.1	1400.5
23.5°	1272.1	1265.8	1282.5	1315.9	1354.7	1391.3
24°	1260.9	1254.6	1271.6	1305.3	1344.8	1382.1
24.5°	1249.8	1243.5	1260.7	1294.8	1335.1	1372.6
25°	1238.6	1232.1	1249.3	1284.2	1324.9	1362.9
25.5°	1227.0	1220.7	1238.4	1273.5	1314.7	1353.2
26°	1215.6	1209.5	1227.0	1262.6	1304.5	1343.3
26.5°	1204.0	1197.9	1215.8	1251.7	1294.1	1333.1
27°	1192.3	1186.5	1204.5	1240.6	1283.4	1323.2
27.5°	1180.7	1174.7	1193.1	1229.4	1272.8	1312.5
28°	1168.8	1162.8	1181.4	1218.0	1261.6	1301.9
28.5°	1156.7	1150.9	1169.6	1206.6	1250.7	1291.2
29°	1145.1	1139.3	1158.2	1195.0	1239.4	1280.3
29.5°	1133.0	1127.2	1146.3	1183.4	1228.2	1269.2
30°	1120.6	1114.8	1134.4	1171.8	1216.8	1258.0
30.5°	1108.0	1102.5	1122.3	1159.6	1204.9	1246.9
31°	1095.4	1090.1	1109.7	1147.8	1193.1	1235.2
31.5°	1082.8	1077.5	1097.4	1135.4	1181.4	1223.8
32°	1069.7	1064.9	1085.0	1123.0	1169.3	1212.0
32.5°	1057.1	1052.1	1072.4	1110.4	1157.2	1200.3
33°	1044.1	1039.0	1059.6	1098.1	1144.4	1187.7
33.5°	1031.0	1026.4	1047.0	1085.3	1131.8	1175.9
34°	1017.6	1013.0	1034.1	1072.4	1119.2	1163.0
34.5°	1004.1	999.5	1020.6	1059.1	1105.8	1150.7
35°	990.0	985.7	1007.0	1046.2	1093.0	1137.3
35.5°	976.2	971.6	993.4	1032.7	1079.7	1125.2
36°	961.9	956.3	979.4	1019.1	1066.4	1111.9
36.5°	945.7	940.4	964.1	1004.3	1052.8	1098.8
37°	928.2	922.7	947.1	989.8	1038.2	1084.8
37.5°	910.3	903.8	929.5	973.6	1023.5	1071.9
38°	891.2	884.4	910.6	956.3	1008.4	1057.1
38.5°	871.8	864.5	891.2	938.4	992.9	1042.6
39°	851.9	844.6	871.5	920.2	976.5	1027.3
39.5°	831.6	824.3	851.4	901.8	959.0	1012.8
40°	810.5	803.2	831.6	882.4	940.4	996.8
40.5°	790.1	782.1	811.0	862.8	921.9	980.1
41°	768.6	761.3	791.1	843.0	902.8	962.9
41.5°	747.5	740.5	770.5	822.4	883.4	945.0
42°	725.9	719.9	750.2	801.8	863.8	926.5
42.5°	704.8	698.8	729.8	781.2	843.0	906.9
43°	682.8	677.7	709.7	759.8	822.1	886.1
43.5°	661.7	657.1	689.1	738.3	800.6	864.5



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	598.0	594.8	626.6	674.1	734.9	798.1
45.5°	576.9	574.2	605.7	651.8	712.6	775.1
46°	556.1	553.6	584.2	631.2	690.1	752.1
46.5°	535.7	533.1	562.6	609.4	666.8	729.6
47°	514.6	512.7	542.3	587.8	644.0	706.8
47.5°	494.5	492.6	520.9	565.8	621.3	684.2
48°	474.9	472.7	500.8	544.9	598.7	661.5
48.5°	455.0	453.1	480.2	522.9	575.7	639.2
49°	435.4	434.0	459.9	502.3	553.6	617.4
49.5°	415.8	414.6	440.3	481.0	531.6	595.1
50°	396.9	395.7	420.4	460.1	509.3	573.8
50.5°	378.0	376.8	400.8	438.1	487.5	551.5
51°	359.8	358.6	381.1	418.9	466.4	530.4
51.5°	342.1	340.7	362.5	398.3	445.6	509.1
52°	324.0	323.0	343.8	378.5	425.2	488.5
52.5°	306.7	305.8	325.6	357.6	404.9	467.4
53°	289.8	288.6	307.5	339.5	385.0	447.0
53.5°	273.3	271.9	289.5	320.6	365.9	426.7
54°	257.3	255.6	272.1	301.4	346.7	406.8
54.5°	241.6	239.9	255.6	283.5	328.6	386.9
55°	227.5	224.1	239.1	266.0	310.4	367.8
55.5°	213.2	209.1	222.7	249.1	292.7	348.4
56°	199.2	194.1	207.2	232.6	275.5	330.3
56.5°	184.9	179.8	191.9	216.4	259.0	311.6
57°	170.6	166.0	177.4	200.9	242.5	294.1
57.5°	158.0	152.4	163.1	186.3	226.5	276.5
58°	145.9	139.6	149.3	172.0	211.0	259.5
58.5°	134.0	127.2	136.4	158.5	196.3	243.0
59°	123.1	115.6	123.8	145.1	181.7	227.0
59.5°	111.9	104.4	112.2	132.8	167.7	211.5
60°	101.5	93.8	101.0	121.1	154.1	196.0
60.5°	91.6	83.8	90.4	109.5	141.0	181.2
61°	82.6	75.4	81.7	98.6	128.4	166.9
61.5°	73.4	66.9	73.2	88.7	116.5	153.4
62°	65.2	58.6	64.7	80.4	105.4	140.3
62.5°	57.7	50.2	56.2	72.0	94.3	127.2
63°	50.6	43.4	47.7	63.7	83.8	114.6
63.5°	43.6	37.6	41.2	55.5	75.1	102.2
64°	37.6	32.0	35.4	47.2	66.6	90.1
64.5°	32.0	27.6	30.5	40.7	58.2	79.7
65°	28.6	23.5	26.2	34.9	49.7	69.5
65.5°	25.2	20.1	22.5	29.6	42.6	59.4
66°	21.8	17.0	19.1	25.0	36.1	49.2



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	11.9	11.4	12.4	14.8	21.1	25.4
68°	10.7	10.7	11.1	12.8	17.7	20.4
68.5°	9.9	9.9	10.4	11.4	14.8	16.7
69°	9.4	9.2	9.7	10.7	12.8	14.5
69.5°	8.7	8.7	9.2	9.9	11.6	13.3
70°	8.2	8.2	8.7	9.4	10.9	12.6
70.5°	7.8	7.8	8.0	8.7	10.2	11.9
71°	7.0	7.0	7.5	8.2	9.4	11.1
71.5°	6.5	6.5	7.0	7.8	9.0	10.4
72°	6.3	6.3	6.5	7.3	8.5	9.7
72.5°	5.8	5.8	6.1	6.8	7.8	9.2
73°	5.3	5.3	5.6	6.3	7.3	8.7
73.5°	5.1	5.1	5.3	5.8	6.8	8.0
74°	4.6	4.6	4.8	5.3	6.3	7.5
74.5°	4.4	4.4	4.6	5.1	5.8	7.0
75°	4.1	4.1	4.4	4.8	5.6	6.5
75.5°	3.9	3.9	4.1	4.4	5.1	6.1
76°	3.6	3.6	3.6	4.1	4.8	5.8
76.5°	3.4	3.4	3.4	3.9	4.4	5.3
77°	3.1	3.1	3.1	3.6	4.1	5.1
77.5°	2.9	2.9	2.9	3.4	3.9	4.6
78°	2.7	2.7	2.9	3.1	3.6	4.4
78.5°	2.4	2.4	2.7	2.9	3.1	4.1
79°	2.2	2.2	2.4	2.7	2.9	3.6
79.5°	2.2	2.2	2.2	2.4	2.7	3.4
80°	1.9	1.9	1.9	2.2	2.4	3.1
80.5°	1.7	1.7	1.9	1.9	2.2	2.9
81°	1.7	1.7	1.7	1.7	1.9	2.7
81.5°	1.5	1.5	1.5	1.7	1.7	2.4
82°	1.2	1.2	1.5	1.5	1.5	1.9
82.5°	1.2	1.2	1.2	1.2	1.2	1.7
83°	1.0	1.0	1.0	1.2	1.0	1.5
83.5°	1.0	0.7	1.0	1.0	1.0	1.0
84°	0.7	0.7	0.7	1.0	0.7	0.7
84.5°	0.5	0.5	0.5	0.7	0.7	0.5
85°	0.5	0.2	0.5	0.5	0.5	0.5
85.5°	0.2	0.2	0.2	0.5	0.5	0.2
86°	0.0	0.0	0.0	0.2	0.2	0.2
86.5°	0.0	0.0	0.0	0.0	0.2	0.2
87°	0.0	0.0	0.0	0.0	0.0	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.2	0.0	0.0	0.0	0.0
88.5°	0.2	0.2	0.2	0.0	0.0	0.0



TEST NUMBER: P775930

CATALOG NUMBER: HCDJBL1525CSD-HCD41TRH-2500lm-2700K

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

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

Scaled Data Report



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Scaled Data Report





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

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Scaled Data Report





21.5°	1425.9	1452.8	1469.5	1475.8	1477.0	1459.1	1429.8	1394.2	1361.5	1339.4	1325.4
22°	1417.7	1444.8	1462.0	1468.6	1469.5	1451.6	1421.6	1385.0	1351.8	1329.5	1315.2



44°	842.7	894.1	926.5	943.0	951.0	921.0	870.3	808.8	745.5	694.2	659.3
44.5°	820.9	874.0	907.4	923.9	932.1	900.9	850.0	788.4	725.2	673.6	637.7



66.5°	39.0	63.2	79.5	85.8	91.1	80.7	63.5	46.0	30.3	25.0	20.8
67°	31.5	53.5	70.0	76.6	80.2	70.8	55.5	39.3	26.9	21.8	17.0



89°	0.0	0.0	0.5	0.5	0.7	0.5	0.2	0.0	0.0	0.0	0.2
89.5°	0.0	0.0	0.2	0.2	0.5	0.2	0.2	0.0	0.0	0.0	0.2

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21.5°	1314.5	1309.1	1324.4	1355.9	1391.8	1425.9
22°	1304.0	1298.2	1314.2	1346.0	1382.5	1417.7



44°	640.4	636.5	668.3	717.0	779.2	842.7
44.5°	619.3	615.4	646.9	694.9	757.7	820.9

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66.5°	18.7	14.8	16.2	20.8	30.5	39.0
67°	15.3	12.6	14.1	17.4	25.4	31.5

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Scaled Data Report



89°	0.2	0.2	0.0	0.2	0.0	0.0
89.5°	0.2	0.0	0.0	0.2	0.0	0.0

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Scaled Data Report



(END OF REPORT)