

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



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

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P775933

Luminaire Tested: HCDJBL51525CSD-HCD41TRH-2500lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775933
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-4000K
Description: 4 INCH ROUND SHALLOW-WIDE HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

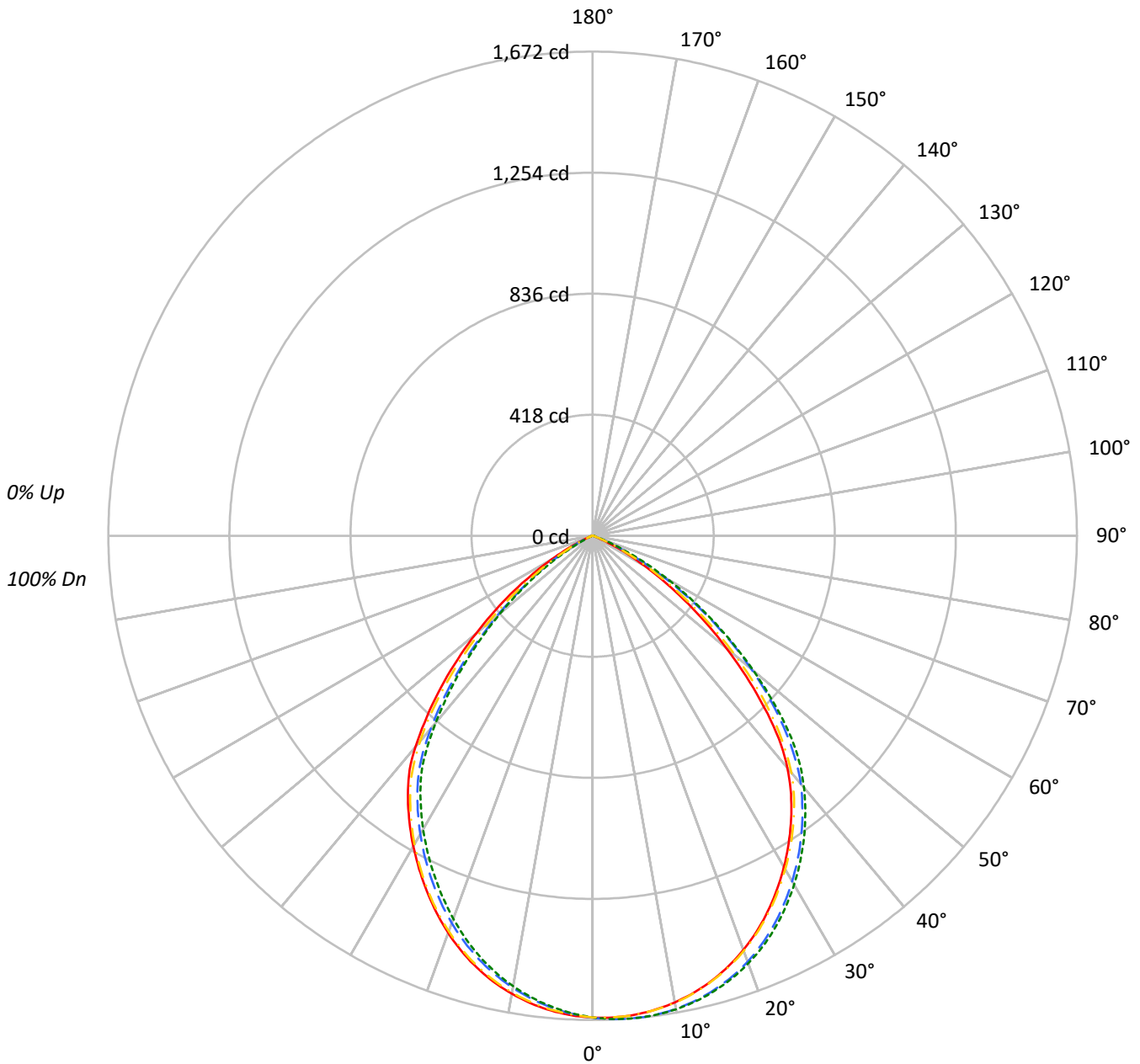
Lumens per Lamp: N/A
Luminaire Lumens: 2975.7 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.22
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 25
Input Voltage (V): NR
Input Current (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: P775933
CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P775933

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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	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°	209339	209339	209339	209339
5°	209759	211237	207927	206159
10°	209066	212185	205258	201821
15°	207212	211994	201193	195981
20°	203836	210479	195385	188448
25°	198667	207221	188072	179601
30°	191908	202138	179963	170067
35°	183424	195500	170811	158965
40°	171908	186497	156202	138525
45°	149110	170397	131686	111130
50°	117923	141828	103141	81330
55°	84715	109597	72428	51628
60°	51800	74704	41480	24767
65°	21738	39903	15515	7355
70°	4857	11701	4489	3164
75°	3355	4328	3112	2091
80°	2392	3334	2247	1449
85°	722	2888	433	433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 170397 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.7	5.3
10°-20°	441.1	14.8
20°-30°	640.9	21.5
30°-40°	717.9	24.1
40°-50°	604.5	20.3
50°-60°	325.5	10.9
60°-70°	80.2	2.7
70°-80°	7.7	0.3
80°-90°	1.3	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°	1238.7	41.6
0°-40°	1956.6	65.8
0°-60°	2886.5	97.0
0°-90°	2975.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2975.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1663	1663	1663	1663	1663	
5°	1660	1672	1646	1632	1660	158
15°	1590	1627	1544	1504	1590	448
25°	1431	1492	1354	1293	1431	658
35°	1194	1272	1112	1035	1194	745
45°	838	957	740	624	838	640
55°	386	500	330	235	386	348
65°	73	134	52	25	73	82
75°	7	9	6	4	7	8
85°	0	2	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P775933

CATALOG NUMBER: HCDJBL5125CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4
0.5°	1664.5	1665.5	1666.0	1665.5	1665.0	1664.0	1663.4	1662.9	1662.9	1662.9	1662.4
1°	1664.7	1666.8	1667.5	1667.3	1666.5	1665.5	1664.0	1662.7	1661.9	1661.2	1660.1
1.5°	1665.0	1667.5	1669.0	1668.8	1668.0	1666.5	1664.5	1662.4	1660.6	1659.1	1657.9
2°	1665.0	1668.3	1670.1	1670.1	1669.3	1667.3	1664.5	1661.7	1659.4	1657.1	1655.3
2.5°	1664.7	1668.8	1671.1	1671.1	1670.3	1667.8	1664.5	1660.6	1657.6	1654.8	1652.3
3°	1664.2	1669.0	1671.6	1671.8	1671.1	1668.3	1664.0	1659.6	1655.8	1652.3	1649.5
3.5°	1663.4	1669.0	1672.1	1672.6	1671.6	1668.3	1663.4	1658.4	1653.5	1649.2	1646.2
4°	1662.7	1668.8	1672.3	1672.9	1672.1	1668.3	1662.9	1656.8	1651.2	1646.4	1642.8
4.5°	1661.7	1668.3	1672.3	1673.1	1672.3	1668.0	1661.9	1655.1	1648.7	1643.4	1639.0
5°	1660.4	1667.8	1672.1	1673.4	1672.1	1667.5	1660.6	1653.0	1645.9	1639.8	1635.2
5.5°	1658.9	1667.0	1671.6	1673.1	1672.1	1666.8	1659.4	1651.0	1642.8	1636.2	1631.4
6°	1657.1	1666.0	1671.3	1672.6	1671.6	1666.0	1657.6	1648.4	1639.8	1632.4	1627.1
6.5°	1655.1	1664.7	1670.3	1671.8	1670.8	1664.7	1655.8	1645.9	1636.2	1628.3	1622.5
7°	1653.3	1663.2	1669.3	1671.1	1670.1	1663.4	1653.8	1643.1	1632.7	1624.3	1617.7
7.5°	1650.7	1661.7	1668.0	1670.1	1668.8	1661.9	1651.7	1640.0	1628.9	1619.7	1612.8
8°	1648.2	1659.9	1666.5	1668.8	1667.5	1660.1	1649.2	1636.7	1624.8	1614.9	1607.7
8.5°	1645.4	1657.6	1665.0	1667.3	1666.0	1658.4	1646.4	1633.2	1620.2	1609.8	1602.4
9°	1642.6	1655.3	1663.2	1665.5	1664.2	1656.1	1643.6	1629.4	1615.9	1604.7	1596.8
9.5°	1639.3	1652.8	1660.9	1663.7	1662.4	1653.8	1640.6	1625.5	1611.1	1599.6	1591.2
10°	1636.0	1650.2	1658.6	1661.4	1660.4	1651.2	1637.2	1621.5	1606.2	1594.0	1585.4
10.5°	1632.4	1647.2	1656.1	1659.1	1657.9	1648.4	1633.7	1616.9	1600.9	1588.2	1579.0
11°	1628.6	1644.1	1653.3	1656.6	1655.3	1645.4	1629.9	1612.3	1595.5	1582.3	1572.6
11.5°	1624.5	1640.6	1650.5	1653.8	1652.5	1642.1	1626.1	1607.5	1589.9	1575.9	1566.3
12°	1620.5	1637.0	1647.2	1650.7	1649.7	1638.5	1622.0	1602.7	1584.1	1569.6	1559.4
12.5°	1615.9	1633.2	1643.6	1647.4	1646.4	1635.0	1617.4	1597.1	1578.0	1563.2	1552.3
13°	1611.3	1629.1	1640.0	1644.1	1643.1	1631.1	1612.8	1591.7	1571.6	1556.4	1545.4
13.5°	1606.2	1624.8	1636.0	1640.3	1639.3	1627.1	1608.0	1586.1	1565.3	1549.0	1537.8
14°	1601.1	1620.2	1632.2	1636.5	1635.5	1623.0	1603.2	1580.3	1558.1	1541.9	1530.2
14.5°	1595.8	1615.6	1627.8	1632.2	1631.4	1618.4	1597.8	1573.9	1551.3	1534.2	1522.5
15°	1590.4	1610.8	1623.3	1627.8	1627.1	1613.6	1592.5	1567.3	1544.2	1526.9	1514.7
15.5°	1584.6	1605.5	1618.4	1623.3	1622.5	1608.8	1586.6	1560.7	1536.5	1518.5	1506.0
16°	1578.5	1600.1	1613.6	1618.7	1617.7	1603.4	1581.0	1554.1	1528.9	1510.3	1497.6
16.5°	1572.1	1594.5	1608.3	1613.6	1612.8	1598.1	1574.7	1546.7	1520.8	1502.2	1489.0
17°	1565.8	1588.4	1602.9	1608.3	1607.7	1592.5	1568.3	1539.3	1512.9	1493.5	1480.3
17.5°	1558.9	1582.6	1597.1	1602.7	1602.1	1586.6	1561.7	1531.9	1504.2	1484.6	1470.9
18°	1552.0	1576.2	1591.2	1596.8	1596.6	1580.5	1554.8	1524.3	1495.6	1475.5	1461.7
18.5°	1544.9	1569.6	1585.1	1590.7	1590.7	1574.4	1548.0	1516.2	1486.7	1466.1	1452.1
19°	1537.5	1562.7	1578.5	1584.6	1584.6	1567.8	1540.6	1508.0	1477.5	1456.4	1442.7
19.5°	1529.9	1555.6	1571.9	1578.0	1578.2	1561.2	1533.2	1499.4	1468.4	1447.0	1432.5
20°	1522.0	1548.2	1565.0	1571.1	1571.6	1554.1	1525.3	1490.7	1458.9	1437.3	1422.6
20.5°	1513.9	1540.8	1557.6	1564.2	1564.8	1547.0	1517.7	1481.8	1449.3	1426.9	1412.4
21°	1505.5	1533.0	1550.3	1557.1	1557.6	1539.3	1509.6	1472.9	1439.1	1416.7	1402.0



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CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1479.0	1508.3	1526.4	1533.7	1535.0	1515.7	1483.6	1444.5	1408.6	1384.7	1369.7
23°	1470.1	1499.4	1518.0	1525.3	1527.1	1507.3	1474.7	1434.8	1398.2	1374.0	1358.7
23.5°	1460.5	1490.5	1509.3	1517.2	1518.7	1498.9	1465.3	1424.6	1387.2	1362.8	1347.3
24°	1450.8	1481.3	1500.4	1508.3	1510.1	1490.0	1455.9	1414.7	1376.5	1351.6	1335.8
24.5°	1440.9	1471.7	1491.3	1499.4	1501.2	1480.8	1446.2	1404.0	1365.6	1340.4	1324.4
25°	1430.7	1462.3	1481.8	1490.2	1492.3	1471.7	1436.6	1393.8	1354.4	1329.2	1313.0
25.5°	1420.5	1452.6	1472.4	1481.1	1483.4	1462.5	1426.6	1383.2	1343.2	1317.3	1301.3
26°	1410.1	1442.4	1462.5	1471.4	1473.7	1452.6	1416.7	1372.5	1332.3	1305.6	1289.3
26.5°	1399.4	1432.2	1452.8	1461.7	1463.8	1442.7	1406.3	1361.3	1320.6	1293.6	1277.3
27°	1389.0	1421.8	1442.7	1451.8	1454.1	1432.5	1395.9	1350.6	1308.9	1281.9	1265.1
27.5°	1377.8	1411.1	1432.2	1441.9	1443.9	1422.3	1384.9	1339.4	1297.4	1270.0	1252.9
28°	1366.6	1400.4	1421.6	1431.5	1433.8	1411.6	1374.5	1328.2	1285.7	1257.8	1240.7
28.5°	1355.4	1389.8	1410.9	1420.8	1423.3	1401.5	1363.6	1316.5	1273.8	1245.8	1228.0
29°	1344.0	1378.6	1399.9	1410.1	1412.7	1390.8	1352.4	1305.1	1262.1	1233.6	1215.5
29.5°	1332.3	1367.4	1389.0	1399.4	1402.0	1379.8	1340.9	1293.6	1250.1	1220.9	1203.1
30°	1320.6	1355.7	1377.6	1388.0	1391.0	1368.4	1330.0	1282.2	1238.4	1208.7	1190.1
30.5°	1308.9	1344.2	1366.4	1377.3	1379.8	1357.2	1318.3	1270.2	1226.0	1196.2	1177.1
31°	1296.7	1332.8	1354.7	1365.9	1368.7	1346.0	1306.6	1258.3	1213.8	1183.5	1163.9
31.5°	1284.7	1320.6	1343.2	1354.2	1357.0	1334.3	1294.6	1246.3	1201.5	1170.8	1150.7
32°	1272.3	1308.6	1331.0	1342.2	1345.3	1322.4	1283.2	1234.6	1189.3	1157.8	1137.2
32.5°	1260.0	1296.4	1319.3	1330.8	1333.6	1310.7	1271.0	1222.4	1176.9	1144.6	1123.5
33°	1246.8	1284.0	1307.1	1318.8	1321.6	1299.0	1259.0	1210.4	1163.9	1131.3	1110.0
33.5°	1234.4	1271.7	1294.6	1306.6	1309.4	1286.5	1246.8	1197.5	1150.9	1117.9	1095.7
34°	1220.9	1259.0	1281.9	1294.4	1297.4	1274.5	1234.4	1185.0	1138.0	1104.6	1081.7
34.5°	1207.9	1245.8	1269.7	1281.9	1284.7	1262.1	1221.9	1172.0	1125.0	1090.7	1067.8
35°	1193.9	1232.3	1256.7	1269.5	1272.5	1249.4	1208.9	1159.1	1111.8	1076.9	1053.0
35.5°	1181.2	1219.4	1243.5	1256.2	1259.8	1236.4	1195.7	1146.1	1098.3	1062.9	1038.0
36°	1167.2	1205.9	1230.0	1243.5	1246.8	1223.4	1182.7	1132.9	1084.5	1048.7	1023.5
36.5°	1153.5	1192.1	1217.1	1230.0	1233.3	1210.2	1169.2	1119.6	1070.8	1033.9	1007.5
37°	1138.7	1178.1	1203.3	1216.3	1219.6	1196.5	1155.5	1105.7	1056.6	1018.2	989.9
37.5°	1125.2	1164.2	1189.6	1202.8	1206.1	1183.0	1142.0	1091.7	1041.8	1000.9	971.4
38°	1109.7	1150.2	1175.3	1189.1	1192.6	1169.2	1127.8	1077.4	1025.8	982.8	951.8
38.5°	1094.5	1135.9	1161.6	1174.8	1178.7	1155.0	1113.3	1062.4	1008.8	964.2	931.4
39°	1078.4	1120.7	1147.6	1160.9	1164.7	1140.8	1098.8	1046.1	990.7	944.9	910.8
39.5°	1063.2	1105.1	1132.9	1146.6	1150.4	1125.8	1083.5	1028.6	971.6	924.6	890.2
40°	1046.4	1089.6	1117.6	1131.3	1135.2	1111.0	1067.0	1010.8	950.8	904.0	869.4
40.5°	1028.8	1073.4	1101.8	1116.1	1120.2	1095.0	1049.4	991.7	930.2	882.8	847.5
41°	1010.8	1056.3	1085.6	1100.6	1104.6	1079.2	1031.4	972.4	909.6	861.2	825.9
41.5°	992.0	1038.0	1067.8	1083.5	1088.6	1062.4	1013.1	953.0	888.7	840.4	804.8
42°	972.6	1019.4	1049.4	1066.0	1072.1	1044.9	993.7	933.2	867.3	817.2	782.1
42.5°	952.0	1000.1	1030.6	1047.9	1054.8	1026.3	974.4	912.6	846.0	795.1	760.0
43°	930.2	980.0	1011.5	1028.8	1037.0	1007.0	954.6	891.0	825.1	773.2	737.1
43.5°	907.5	959.4	992.2	1009.5	1017.9	987.4	934.2	869.9	804.3	751.3	715.2



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CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	837.8	895.8	931.9	949.7	957.4	924.3	870.9	805.8	739.9	685.0	647.3
45.5°	813.7	874.2	911.8	929.4	935.0	902.4	849.0	784.4	719.0	663.3	624.7
46°	789.5	851.8	890.7	908.5	912.9	879.8	826.9	762.8	697.2	641.5	601.8
46.5°	765.8	828.4	869.6	887.2	890.0	857.2	804.5	741.2	675.8	619.8	579.7
47°	741.9	805.8	848.5	865.8	866.3	833.8	781.4	719.0	654.4	598.2	557.3
47.5°	718.3	782.6	826.1	843.9	842.9	810.1	758.5	697.4	633.1	577.9	535.2
48°	694.4	759.5	804.3	821.8	818.8	786.4	735.3	675.8	611.2	556.0	513.5
48.5°	671.0	736.1	782.1	799.4	795.1	762.5	712.2	654.2	590.1	534.9	492.7
49°	648.1	712.9	760.5	777.0	771.2	738.6	688.8	631.8	569.0	513.8	471.1
49.5°	624.7	689.0	737.6	754.4	747.8	714.7	665.6	610.4	548.1	493.4	450.5
50°	602.3	665.6	715.0	731.0	724.4	690.6	642.0	588.1	526.8	473.1	429.9
50.5°	578.9	642.5	692.1	707.6	702.0	666.7	618.6	566.4	505.9	452.7	410.0
51°	556.8	619.6	669.4	684.7	677.8	643.3	595.2	544.1	485.6	432.9	390.4
51.5°	534.4	596.2	646.0	661.1	655.0	620.6	572.5	523.2	465.5	413.3	371.9
52°	512.8	574.1	623.9	638.7	632.6	597.7	549.6	501.6	445.4	393.7	353.0
52.5°	490.6	551.7	600.5	615.0	610.7	574.1	527.3	480.0	425.3	374.4	335.0
53°	469.3	529.3	577.4	592.1	587.3	551.4	504.6	458.6	405.7	355.6	316.7
53.5°	447.9	506.9	554.0	568.2	564.7	529.3	483.0	438.2	386.4	337.3	299.4
54°	427.1	485.0	531.3	545.8	542.5	507.2	460.6	417.4	367.5	319.0	282.6
54.5°	406.2	463.9	508.7	522.9	521.7	485.3	439.8	396.5	348.5	301.1	266.0
55°	386.1	442.6	486.3	501.1	499.5	463.4	418.7	376.7	330.1	284.1	250.5
55.5°	365.8	421.5	463.9	478.2	477.7	442.6	398.3	357.1	311.8	267.1	236.0
56°	346.7	400.9	441.6	457.3	456.3	421.2	378.0	337.5	294.0	250.8	221.3
56.5°	327.1	380.8	419.9	435.4	436.0	400.6	357.9	318.2	276.5	235.5	206.5
57°	308.8	360.7	397.5	414.1	414.6	380.3	338.5	299.9	259.4	220.5	192.0
57.5°	290.2	340.8	376.7	392.5	394.0	360.7	319.7	281.8	242.6	205.3	177.3
58°	272.4	321.8	356.1	372.9	374.1	341.3	301.4	263.8	226.9	190.3	164.3
58.5°	255.1	303.2	335.7	352.3	353.8	322.5	283.6	246.7	211.1	175.0	151.8
59°	238.3	284.1	315.6	332.2	334.5	304.2	265.8	230.7	195.3	161.3	139.6
59.5°	222.0	266.0	296.1	312.1	315.6	286.1	248.8	214.4	179.6	148.3	127.9
60°	205.8	248.5	277.0	293.8	296.8	268.3	233.2	198.4	164.8	135.6	117.0
60.5°	190.3	230.9	258.4	275.0	278.5	251.6	217.7	182.4	150.8	123.6	106.1
61°	175.2	213.9	240.4	256.1	260.5	235.8	202.2	167.9	137.3	111.9	95.9
61.5°	161.0	197.9	223.3	238.6	243.7	220.3	186.7	154.1	124.4	101.2	86.5
62°	147.3	182.1	206.5	221.3	227.1	204.5	171.2	140.7	112.2	90.8	77.6
62.5°	133.5	166.9	190.0	204.2	210.6	189.0	157.2	127.9	100.0	81.1	68.9
63°	120.3	151.8	174.2	188.0	194.1	173.2	143.7	115.2	89.0	71.7	60.5
63.5°	107.3	137.6	159.2	171.7	177.5	159.2	131.0	103.8	78.6	63.3	53.2
64°	94.6	123.6	144.7	156.7	162.3	145.5	118.5	93.1	68.9	55.2	46.3
64.5°	83.7	110.1	131.0	141.9	147.8	132.0	107.3	82.9	60.3	47.8	39.7
65°	73.0	97.4	117.8	128.2	134.0	119.5	96.1	73.3	52.1	41.2	34.1
65.5°	62.3	86.5	105.0	115.0	120.6	107.3	86.0	64.4	44.3	35.1	30.0
66°	51.6	76.3	93.1	102.0	107.6	95.6	75.8	56.2	37.6	29.8	25.9



TEST NUMBER: P775933

CATALOG NUMBER: HCDJBLS1525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	26.7	46.3	63.8	70.7	73.5	64.6	50.6	35.1	24.7	19.6	13.7
68°	21.4	38.9	53.9	61.3	63.6	55.7	43.2	29.8	21.1	16.0	12.0
68.5°	17.6	32.3	44.3	51.6	54.4	47.6	36.6	26.5	17.6	12.7	10.9
69°	15.3	26.7	36.6	42.0	45.8	40.2	31.0	23.4	14.0	11.4	10.2
69.5°	14.0	22.1	30.0	34.8	38.2	33.6	27.2	20.1	13.0	10.7	9.4
70°	13.2	18.3	24.4	28.7	31.8	29.5	23.7	16.8	12.2	9.9	8.9
70.5°	12.5	15.3	19.6	23.4	28.0	25.4	20.1	13.7	11.4	9.4	8.4
71°	11.7	13.0	16.0	19.1	24.2	21.4	16.5	12.5	10.7	8.9	7.6
71.5°	10.9	12.0	13.5	15.8	20.3	17.3	13.0	11.7	9.9	8.1	7.1
72°	10.2	11.2	12.0	13.2	16.5	13.2	12.0	10.9	9.4	7.6	6.9
72.5°	9.7	10.4	10.9	12.0	12.7	12.0	11.2	10.2	8.6	7.1	6.4
73°	9.2	9.7	10.2	11.2	11.7	11.2	10.4	9.7	8.1	6.6	5.9
73.5°	8.4	9.2	9.7	10.4	10.9	10.4	9.7	8.9	7.6	6.4	5.6
74°	7.9	8.6	9.2	9.7	10.2	9.7	9.2	8.4	7.1	5.9	5.1
74.5°	7.4	7.9	8.4	9.2	9.7	9.2	8.4	7.9	6.6	5.3	4.8
75°	6.9	7.4	7.9	8.4	8.9	8.4	7.9	7.4	6.4	5.1	4.3
75.5°	6.4	6.9	7.4	7.9	8.4	7.9	7.4	6.9	5.9	4.8	4.1
76°	6.1	6.6	6.9	7.4	7.9	7.4	6.9	6.4	5.3	4.3	3.8
76.5°	5.6	6.1	6.4	6.9	7.4	6.9	6.4	5.9	5.1	4.1	3.6
77°	5.3	5.6	6.1	6.4	6.9	6.4	6.1	5.6	4.8	3.8	3.3
77.5°	4.8	5.3	5.6	6.1	6.4	6.1	5.6	5.1	4.3	3.6	3.1
78°	4.6	5.1	5.3	5.6	5.9	5.6	5.1	4.8	4.1	3.3	2.8
78.5°	4.3	4.6	4.8	5.3	5.6	5.3	4.8	4.3	3.8	3.1	2.5
79°	3.8	4.3	4.6	4.8	5.1	4.8	4.6	4.1	3.6	2.8	2.3
79.5°	3.6	4.1	4.3	4.6	4.8	4.6	4.1	3.8	3.3	2.5	2.3
80°	3.3	3.6	3.8	4.3	4.6	4.3	3.8	3.6	3.1	2.3	2.0
80.5°	3.1	3.3	3.6	4.1	4.1	4.1	3.6	3.3	2.8	2.0	1.8
81°	2.8	3.1	3.3	3.8	3.8	3.6	3.3	3.1	2.5	1.8	1.5
81.5°	2.5	2.8	3.1	3.6	3.6	3.3	3.1	2.8	2.3	1.5	1.5
82°	2.0	2.5	2.8	3.3	3.3	3.1	2.8	2.5	2.0	1.3	1.3
82.5°	1.8	2.3	2.8	3.1	3.1	3.1	2.5	2.3	1.5	1.0	1.3
83°	1.5	2.0	2.5	2.8	2.8	2.8	2.5	2.0	1.3	1.0	1.0
83.5°	1.0	1.8	2.3	2.5	2.5	2.5	2.3	1.8	1.0	0.8	1.0
84°	0.8	1.5	2.0	2.3	2.5	2.3	2.0	1.5	0.8	0.5	0.8
84.5°	0.5	1.3	1.8	2.0	2.3	2.0	1.8	1.3	0.5	0.5	0.5
85°	0.5	1.0	1.8	2.0	2.0	2.0	1.8	1.0	0.3	0.5	0.5
85.5°	0.3	1.0	1.5	1.8	1.8	1.8	1.5	1.0	0.3	0.3	0.3
86°	0.3	0.8	1.5	1.5	1.8	1.5	1.3	0.8	0.3	0.3	0.3
86.5°	0.3	0.8	1.3	1.5	1.5	1.5	1.3	0.8	0.3	0.3	0.0
87°	0.3	0.8	1.0	1.3	1.3	1.3	1.0	0.5	0.0	0.0	0.0
87.5°	0.0	0.5	1.0	1.0	1.3	1.0	0.8	0.5	0.0	0.0	0.0
88°	0.0	0.3	0.8	1.0	1.0	1.0	0.8	0.3	0.0	0.0	0.0
88.5°	0.0	0.3	0.5	0.8	0.8	0.8	0.5	0.3	0.0	0.0	0.0



TEST NUMBER: P775933

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-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	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.3



TEST NUMBER: P775933

CATALOG NUMBER: HCDJBL1525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4
0.5°	1661.4	1660.6	1660.6	1661.7	1662.7	1664.5
1°	1659.1	1658.4	1658.9	1660.4	1662.4	1664.7
1.5°	1656.6	1655.8	1656.6	1658.9	1661.9	1665.0
2°	1653.8	1653.0	1654.3	1657.3	1660.9	1665.0
2.5°	1651.0	1650.2	1651.7	1655.3	1659.9	1664.7
3°	1647.7	1646.9	1649.2	1653.3	1658.6	1664.2
3.5°	1644.1	1643.6	1646.2	1651.0	1657.1	1663.4
4°	1640.6	1639.8	1643.1	1648.4	1655.3	1662.7
4.5°	1636.7	1636.0	1639.5	1645.6	1653.5	1661.7
5°	1632.7	1631.9	1636.0	1642.8	1651.5	1660.4
5.5°	1628.3	1627.6	1632.2	1639.8	1648.9	1658.9
6°	1623.8	1623.3	1628.1	1636.5	1646.4	1657.1
6.5°	1619.2	1618.7	1623.8	1632.9	1643.6	1655.1
7°	1614.4	1613.6	1619.2	1628.9	1640.8	1653.3
7.5°	1609.3	1608.5	1614.6	1624.8	1637.5	1650.7
8°	1603.9	1602.9	1609.5	1620.5	1634.5	1648.2
8.5°	1598.3	1597.6	1604.4	1616.1	1630.9	1645.4
9°	1592.7	1591.7	1598.8	1611.6	1627.1	1642.6
9.5°	1586.9	1585.6	1593.2	1606.5	1622.8	1639.3
10°	1580.8	1579.3	1587.4	1601.4	1618.7	1636.0
10.5°	1574.4	1572.9	1581.3	1596.3	1614.4	1632.4
11°	1567.8	1566.3	1575.2	1591.0	1609.8	1628.6
11.5°	1560.9	1559.4	1568.6	1585.1	1604.9	1624.5
12°	1554.1	1552.3	1562.0	1579.0	1599.9	1620.5
12.5°	1546.7	1544.7	1554.8	1572.6	1594.3	1615.9
13°	1539.3	1537.3	1547.5	1566.5	1588.9	1611.3
13.5°	1531.7	1529.4	1540.1	1559.7	1583.3	1606.2
14°	1523.8	1521.3	1532.5	1552.8	1577.5	1601.1
14.5°	1515.7	1513.1	1524.3	1545.7	1571.1	1595.8
15°	1507.3	1504.2	1516.2	1538.6	1564.8	1590.4
15.5°	1498.9	1495.3	1507.5	1530.9	1557.9	1584.6
16°	1490.0	1486.4	1499.1	1523.0	1551.0	1578.5
16.5°	1480.8	1477.3	1490.0	1515.2	1544.2	1572.1
17°	1471.7	1467.9	1481.1	1507.0	1537.0	1565.8
17.5°	1462.3	1458.2	1471.7	1498.6	1529.1	1558.9
18°	1452.8	1448.3	1462.3	1489.7	1521.5	1552.0
18.5°	1442.9	1438.1	1452.3	1480.8	1513.4	1544.9
19°	1433.0	1427.9	1442.4	1471.7	1505.2	1537.5
19.5°	1422.6	1417.7	1432.5	1462.5	1496.8	1529.9
20°	1412.1	1407.1	1422.3	1452.8	1488.2	1522.0
20.5°	1401.7	1396.1	1411.9	1443.2	1479.3	1513.9
21°	1391.0	1385.2	1401.0	1433.3	1470.1	1505.5

TEST NUMBER: P775933

CATALOG NUMBER: HCDJBLS1525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1358.0	1351.6	1368.7	1402.5	1441.9	1479.0
23°	1346.5	1340.2	1357.2	1392.1	1432.0	1470.1
23.5°	1335.3	1328.7	1346.3	1381.4	1422.1	1460.5
24°	1323.6	1317.0	1334.8	1370.2	1411.6	1450.8
24.5°	1311.9	1305.3	1323.4	1359.2	1401.5	1440.9
25°	1300.2	1293.4	1311.4	1348.1	1390.8	1430.7
25.5°	1288.0	1281.4	1300.0	1336.9	1380.1	1420.5
26°	1276.1	1269.7	1288.0	1325.4	1369.4	1410.1
26.5°	1263.9	1257.5	1276.3	1314.0	1358.5	1399.4
27°	1251.7	1245.5	1264.4	1302.3	1347.3	1389.0
27.5°	1239.4	1233.1	1252.4	1290.6	1336.1	1377.8
28°	1227.0	1220.6	1240.2	1278.6	1324.4	1366.6
28.5°	1214.3	1208.2	1227.7	1266.7	1313.0	1355.4
29°	1202.1	1196.0	1215.8	1254.5	1301.0	1344.0
29.5°	1189.3	1183.2	1203.3	1242.2	1289.3	1332.3
30°	1176.4	1170.3	1190.9	1230.0	1277.3	1320.6
30.5°	1163.1	1157.3	1178.1	1217.3	1264.9	1308.9
31°	1149.9	1144.3	1164.9	1204.9	1252.4	1296.7
31.5°	1136.7	1131.1	1151.9	1191.9	1240.2	1284.7
32°	1123.0	1117.9	1139.0	1178.9	1227.5	1272.3
32.5°	1109.7	1104.4	1125.8	1165.7	1214.8	1260.0
33°	1096.0	1090.7	1112.3	1152.7	1201.3	1246.8
33.5°	1082.3	1077.4	1099.0	1139.2	1188.1	1234.4
34°	1068.3	1063.4	1085.6	1125.8	1174.8	1220.9
34.5°	1054.0	1049.2	1071.3	1111.8	1160.9	1207.9
35°	1039.3	1034.7	1057.1	1098.3	1147.4	1193.9
35.5°	1024.8	1019.9	1042.8	1084.0	1133.4	1181.2
36°	1009.8	1003.9	1028.1	1069.8	1119.4	1167.2
36.5°	992.7	987.1	1012.1	1054.3	1105.1	1153.5
37°	974.4	968.6	994.3	1039.0	1089.9	1138.7
37.5°	955.6	948.7	975.7	1022.0	1074.4	1125.2
38°	935.5	928.4	955.8	1003.9	1058.6	1109.7
38.5°	915.1	907.5	935.5	985.1	1042.3	1094.5
39°	894.3	886.7	914.9	966.0	1025.0	1078.4
39.5°	872.9	865.3	893.8	946.7	1006.7	1063.2
40°	850.8	843.2	872.9	926.3	987.1	1046.4
40.5°	829.4	821.0	851.3	905.7	967.8	1028.8
41°	806.8	799.2	830.5	884.9	947.7	1010.8
41.5°	784.7	777.3	808.8	863.3	927.4	992.0
42°	762.0	755.7	787.5	841.6	906.8	972.6
42.5°	739.9	733.5	766.1	820.0	884.9	952.0
43°	716.8	711.4	745.0	797.6	863.0	930.2
43.5°	694.6	689.8	723.4	775.0	840.4	907.5



TEST NUMBER: P775933

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	627.7	624.4	657.7	707.6	771.4	837.8
45.5°	605.6	602.8	635.9	684.2	748.0	813.7
46°	583.7	581.2	613.2	662.6	724.4	789.5
46.5°	562.4	559.6	590.6	639.7	700.0	765.8
47°	540.2	538.2	569.2	617.1	676.1	741.9
47.5°	519.1	517.1	546.9	593.9	652.2	718.3
48°	498.5	496.2	525.7	572.0	628.5	694.4
48.5°	477.7	475.6	504.1	548.9	604.3	671.0
49°	457.1	455.5	482.8	527.3	581.2	648.1
49.5°	436.5	435.2	462.2	504.9	558.0	624.7
50°	416.6	415.4	441.3	483.0	534.6	602.3
50.5°	396.8	395.5	420.7	459.9	511.8	578.9
51°	377.7	376.4	400.1	439.8	489.6	556.8
51.5°	359.1	357.6	380.5	418.2	467.7	534.4
52°	340.1	339.0	360.9	397.3	446.4	512.8
52.5°	322.0	321.0	341.8	375.4	425.0	490.6
53°	304.2	302.9	322.8	356.3	404.2	469.3
53.5°	286.9	285.4	303.9	336.5	384.1	447.9
54°	270.1	268.3	285.6	316.4	364.0	427.1
54.5°	253.6	251.8	268.3	297.6	344.9	406.2
55°	238.8	235.3	251.0	279.3	325.8	386.1
55.5°	223.8	219.5	233.7	261.5	307.3	365.8
56°	209.1	203.7	217.5	244.2	289.2	346.7
56.5°	194.1	188.7	201.4	227.1	271.9	327.1
57°	179.1	174.2	186.2	210.9	254.6	308.8
57.5°	165.8	160.0	171.2	195.6	237.8	290.2
58°	153.1	146.5	156.7	180.6	221.5	272.4
58.5°	140.7	133.5	143.2	166.3	206.0	255.1
59°	129.2	121.3	130.0	152.4	190.8	238.3
59.5°	117.5	109.6	117.8	139.4	176.0	222.0
60°	106.6	98.4	106.1	127.2	161.8	205.8
60.5°	96.1	88.0	94.9	115.0	148.0	190.3
61°	86.7	79.1	85.7	103.5	134.8	175.2
61.5°	77.1	70.2	76.8	93.1	122.3	161.0
62°	68.4	61.6	67.9	84.4	110.6	147.3
62.5°	60.5	52.7	59.0	75.5	98.9	133.5
63°	53.2	45.5	50.1	66.9	88.0	120.3
63.5°	45.8	39.4	43.2	58.2	78.8	107.3
64°	39.4	33.6	37.1	49.6	69.9	94.6
64.5°	33.6	29.0	32.0	42.7	61.0	83.7
65°	30.0	24.7	27.5	36.6	52.1	73.0
65.5°	26.5	21.1	23.7	31.0	44.8	62.3
66°	22.9	17.8	20.1	26.2	37.9	51.6



TEST NUMBER: P775933

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	12.5	12.0	13.0	15.5	22.1	26.7
68°	11.2	11.2	11.7	13.5	18.6	21.4
68.5°	10.4	10.4	10.9	12.0	15.5	17.6
69°	9.9	9.7	10.2	11.2	13.5	15.3
69.5°	9.2	9.2	9.7	10.4	12.2	14.0
70°	8.6	8.6	9.2	9.9	11.4	13.2
70.5°	8.1	8.1	8.4	9.2	10.7	12.5
71°	7.4	7.4	7.9	8.6	9.9	11.7
71.5°	6.9	6.9	7.4	8.1	9.4	10.9
72°	6.6	6.6	6.9	7.6	8.9	10.2
72.5°	6.1	6.1	6.4	7.1	8.1	9.7
73°	5.6	5.6	5.9	6.6	7.6	9.2
73.5°	5.3	5.3	5.6	6.1	7.1	8.4
74°	4.8	4.8	5.1	5.6	6.6	7.9
74.5°	4.6	4.6	4.8	5.3	6.1	7.4
75°	4.3	4.3	4.6	5.1	5.9	6.9
75.5°	4.1	4.1	4.3	4.6	5.3	6.4
76°	3.8	3.8	3.8	4.3	5.1	6.1
76.5°	3.6	3.6	3.6	4.1	4.6	5.6
77°	3.3	3.3	3.3	3.8	4.3	5.3
77.5°	3.1	3.1	3.1	3.6	4.1	4.8
78°	2.8	2.8	3.1	3.3	3.8	4.6
78.5°	2.5	2.5	2.8	3.1	3.3	4.3
79°	2.3	2.3	2.5	2.8	3.1	3.8
79.5°	2.3	2.3	2.3	2.5	2.8	3.6
80°	2.0	2.0	2.0	2.3	2.5	3.3
80.5°	1.8	1.8	2.0	2.0	2.3	3.1
81°	1.8	1.8	1.8	1.8	2.0	2.8
81.5°	1.5	1.5	1.5	1.8	1.8	2.5
82°	1.3	1.3	1.5	1.5	1.5	2.0
82.5°	1.3	1.3	1.3	1.3	1.3	1.8
83°	1.0	1.0	1.0	1.3	1.0	1.5
83.5°	1.0	0.8	1.0	1.0	1.0	1.0
84°	0.8	0.8	0.8	1.0	0.8	0.8
84.5°	0.5	0.5	0.5	0.8	0.8	0.5
85°	0.5	0.3	0.5	0.5	0.5	0.5
85.5°	0.3	0.3	0.3	0.5	0.5	0.3
86°	0.0	0.0	0.0	0.3	0.3	0.3
86.5°	0.0	0.0	0.0	0.0	0.3	0.3
87°	0.0	0.0	0.0	0.0	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.3	0.0	0.0	0.0	0.0
88.5°	0.3	0.3	0.3	0.0	0.0	0.0



TEST NUMBER: P775933

CATALOG NUMBER: HCDJBL1525CSD-HCD41TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

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

Signify Classified - Internal
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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21.5°	1496.8	1525.1	1542.6	1549.2	1550.5	1531.7	1500.9	1463.5	1429.2	1406.0	1391.3
22°	1488.2	1516.7	1534.7	1541.6	1542.6	1523.8	1492.3	1453.9	1419.0	1395.6	1380.6



44°	884.6	938.5	972.6	989.9	998.3	966.8	913.6	849.0	782.6	728.7	692.1
44.5°	861.7	917.4	952.5	969.8	978.5	945.7	892.3	827.7	761.3	707.1	669.4



66.5°	41.0	66.4	83.4	90.0	95.6	84.7	66.6	48.3	31.8	26.2	21.9
67°	33.1	56.2	73.5	80.4	84.2	74.3	58.2	41.2	28.2	22.9	17.8



89°	0.0	0.0	0.5	0.5	0.8	0.5	0.3	0.0	0.0	0.0	0.3
89.5°	0.0	0.0	0.3	0.3	0.5	0.3	0.3	0.0	0.0	0.0	0.3

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21.5°	1379.8	1374.3	1390.3	1423.3	1461.0	1496.8
22°	1368.9	1362.8	1379.6	1412.9	1451.3	1488.2



44°	672.2	668.2	701.5	752.6	818.0	884.6
44.5°	650.1	646.0	679.1	729.5	795.4	861.7

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66.5°	19.6	15.5	17.0	21.9	32.0	41.0
67°	16.0	13.2	14.8	18.3	26.7	33.1

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Scaled Data Report



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

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Scaled Data Report



(END OF REPORT)