

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: P776498

Luminaire Tested: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776498
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B022)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS3040CSD-HCD8TRH-HCD8TRLWW-4000lm-4000K
Description: 8 INCH ROUND MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

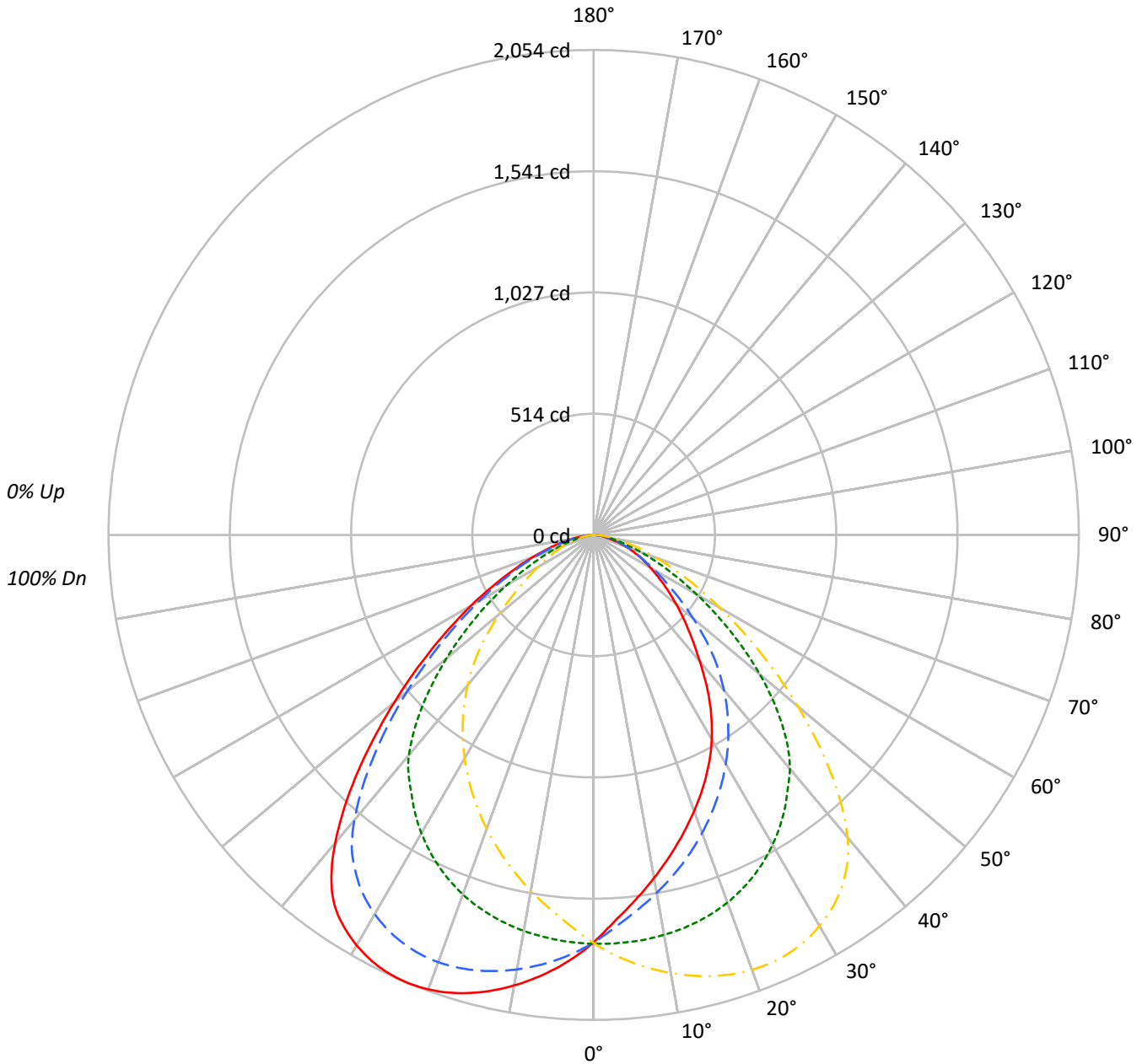
Lumens per Lamp: N/A
Luminaire Lumens: 4039.2 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.32
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
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					70					50					30				
RW	70	50	30	10	70	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87		
2	102	94	89	83	99	93	87	83	89	85	81	86	82	79	83	80	77	75		
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65		
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50		
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44		
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39		
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37	35		
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32		
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	52741	52741	52741	52741
5°	48802	53041	56488	52792
10°	45718	53316	60065	52792
15°	42954	53619	63483	52778
20°	40433	53819	66552	52627
25°	37971	53791	69044	52204
30°	35246	53423	70746	51421
35°	31855	52604	71280	50080
40°	27894	51512	67868	48459
45°	24490	48582	60715	44282
50°	21658	43640	52275	38639
55°	19119	37361	44078	32357
60°	16938	30720	36581	26091
65°	15113	24641	29908	20444
70°	12881	19112	24360	15550
75°	10321	14509	19640	11419
80°	8017	10707	15454	7718
85°	5360	7636	9878	4379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 61755 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.8	4.1
10°-20°	474.7	11.8
20°-30°	726.5	18.0
30°-40°	860.3	21.3
40°-50°	790.0	19.6
50°-60°	552.5	13.7
60°-70°	309.5	7.7
70°-80°	133.7	3.3
80°-90°	28.2	0.7
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°	1365.0	33.8
0°-40°	2225.3	55.1
0°-60°	3567.8	88.3
0°-90°	4039.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4039.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1728	1728	1728	1728	1728	
5°	1592	1731	1843	1723	1592	148
15°	1359	1696	2008	1670	1359	382
25°	1127	1597	2050	1550	1127	517
35°	855	1411	1912	1344	855	532
45°	567	1125	1406	1026	567	439
55°	359	702	828	608	359	323
65°	209	341	414	283	209	207
75°	88	123	166	97	88	95
85°	15	22	28	12	15	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°	1727.5	1727.5	1727.5	1727.5	1727.5	1727.5	1727.5	1727.5	1727.5	1727.5	1727.5
0.5°	1710.9	1712.1	1716.6	1722.6	1731.9	1735.5	1739.2	1739.2	1738.4	1736.7	1735.5
1°	1697.2	1699.6	1706.9	1717.4	1731.9	1740.8	1748.4	1751.3	1751.7	1749.2	1744.4
1.5°	1683.1	1686.3	1697.2	1712.1	1732.3	1746.4	1757.7	1763.3	1764.2	1760.5	1752.9
2°	1668.6	1673.4	1687.2	1706.9	1732.3	1751.3	1766.6	1774.6	1776.2	1771.8	1761.7
2.5°	1654.9	1660.5	1677.1	1701.3	1732.3	1756.1	1775.4	1785.5	1787.9	1782.7	1769.8
3°	1641.6	1648.0	1667.4	1696.0	1732.3	1761.3	1783.5	1796.4	1799.6	1793.2	1777.9
3.5°	1628.7	1636.4	1657.3	1690.4	1731.9	1765.8	1792.0	1806.9	1810.9	1803.3	1785.1
4°	1616.6	1624.7	1648.0	1684.3	1731.5	1770.2	1800.0	1817.4	1821.8	1813.3	1792.8
4.5°	1604.1	1613.4	1638.4	1678.7	1731.1	1774.6	1808.1	1827.8	1832.7	1823.0	1800.0
5°	1592.4	1602.1	1629.1	1672.6	1730.7	1779.1	1815.8	1837.5	1843.2	1832.7	1807.3
5.5°	1580.3	1590.8	1620.2	1666.6	1730.3	1782.7	1823.4	1847.6	1853.6	1842.4	1814.1
6°	1568.6	1579.9	1611.0	1660.9	1729.5	1786.7	1830.7	1856.9	1863.7	1851.6	1821.0
6.5°	1556.9	1569.0	1602.1	1654.9	1728.7	1790.8	1838.3	1866.5	1873.8	1860.1	1827.4
7°	1544.8	1558.1	1593.2	1648.9	1727.9	1794.4	1845.2	1875.4	1883.5	1869.0	1833.9
7.5°	1533.2	1547.3	1584.3	1642.8	1726.7	1798.0	1852.4	1884.3	1892.8	1877.8	1839.9
8°	1521.5	1536.0	1575.5	1636.8	1725.4	1801.2	1858.9	1893.2	1902.4	1886.3	1846.0
8.5°	1509.8	1525.1	1566.6	1630.7	1724.2	1804.5	1865.7	1902.0	1911.7	1894.4	1852.0
9°	1498.1	1514.2	1557.3	1624.3	1723.0	1807.7	1871.8	1910.1	1920.6	1902.0	1857.7
9.5°	1486.4	1503.3	1548.5	1618.2	1721.4	1810.5	1878.2	1918.2	1929.0	1910.1	1862.9
10°	1474.7	1492.0	1539.2	1612.2	1719.8	1813.7	1883.9	1926.6	1937.5	1917.3	1868.2
10.5°	1463.4	1481.1	1529.9	1606.1	1718.2	1816.2	1889.9	1933.9	1946.0	1925.0	1873.4
11°	1451.3	1470.3	1520.7	1599.7	1716.2	1818.6	1896.0	1941.5	1954.0	1931.9	1878.2
11.5°	1439.6	1459.4	1511.4	1593.2	1714.2	1821.0	1901.2	1948.8	1961.7	1938.7	1883.1
12°	1427.9	1448.1	1501.7	1586.8	1712.1	1823.4	1906.5	1956.0	1968.9	1945.6	1887.5
12.5°	1416.6	1437.2	1492.4	1579.9	1710.1	1825.4	1911.7	1963.3	1976.2	1951.6	1891.5
13°	1405.0	1426.3	1483.2	1573.1	1707.7	1827.4	1916.5	1969.8	1983.5	1958.1	1895.6
13.5°	1393.7	1415.4	1473.5	1566.6	1704.9	1829.1	1921.4	1975.8	1989.9	1963.7	1899.6
14°	1382.0	1404.1	1463.8	1559.4	1702.1	1830.3	1925.8	1982.3	1996.4	1969.4	1903.2
14.5°	1370.3	1393.3	1454.1	1552.5	1699.2	1831.9	1930.2	1987.9	2002.4	1974.6	1906.5
15°	1359.0	1382.0	1444.5	1544.8	1696.4	1833.1	1934.3	1993.5	2008.5	1979.8	1909.7
15.5°	1347.3	1370.7	1434.8	1538.0	1693.2	1833.9	1937.9	1998.8	2014.1	1984.3	1912.5
16°	1336.0	1359.8	1424.7	1530.3	1690.0	1834.7	1941.5	2004.0	2019.3	1988.7	1914.9
16.5°	1324.7	1348.9	1414.6	1523.1	1686.3	1835.1	1944.8	2008.5	2024.2	1993.1	1917.3
17°	1313.0	1337.6	1405.0	1515.0	1682.7	1835.5	1948.0	2012.9	2028.6	1996.8	1919.4
17.5°	1301.7	1326.7	1394.5	1506.9	1678.7	1835.5	1950.8	2016.9	2032.6	2000.4	1921.0
18°	1290.1	1315.5	1384.4	1498.9	1674.7	1835.5	1953.2	2020.5	2036.7	2003.6	1922.6
18.5°	1278.8	1304.6	1373.9	1490.8	1670.2	1835.1	1955.2	2024.2	2039.9	2006.0	1923.8
19°	1267.5	1293.3	1363.8	1482.4	1665.8	1834.7	1957.3	2027.4	2043.1	2008.9	1924.6
19.5°	1255.8	1282.4	1353.3	1474.3	1661.3	1833.9	1958.9	2029.8	2045.9	2010.9	1925.0
20°	1244.5	1270.7	1342.9	1465.4	1656.5	1832.7	1960.1	2032.2	2048.4	2012.5	1925.4
20.5°	1232.8	1259.4	1332.4	1457.0	1651.7	1831.1	1961.3	2034.3	2050.4	2013.7	1925.0
21°	1221.5	1248.1	1321.5	1448.1	1646.0	1829.5	1961.7	2035.9	2052.0	2014.9	1924.6



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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°	1186.4	1214.3	1289.7	1420.7	1629.5	1823.4	1962.1	2038.3	2054.4	2015.3	1921.4
23°	1174.8	1203.0	1278.4	1411.0	1623.5	1820.6	1961.3	2038.3	2054.0	2014.5	1919.4
23.5°	1163.1	1191.7	1267.9	1401.7	1617.0	1817.8	1960.1	2037.9	2053.6	2013.7	1917.3
24°	1151.4	1180.0	1256.6	1392.1	1610.2	1814.5	1958.9	2037.1	2052.8	2012.1	1914.5
24.5°	1139.3	1167.9	1245.7	1382.0	1603.7	1810.9	1957.3	2035.9	2051.2	2010.1	1911.7
25°	1127.2	1156.6	1234.4	1372.3	1596.8	1806.9	1954.8	2034.3	2049.6	2008.1	1908.5
25.5°	1115.1	1144.5	1223.5	1362.2	1590.0	1802.9	1952.4	2032.2	2047.6	2005.2	1904.8
26°	1103.0	1132.8	1212.2	1352.1	1582.3	1798.4	1949.6	2029.8	2044.7	2002.0	1900.4
26.5°	1090.9	1120.7	1201.0	1341.7	1574.7	1793.2	1946.4	2027.0	2041.5	1998.4	1896.0
27°	1078.0	1109.0	1189.3	1331.2	1567.0	1788.3	1942.7	2023.8	2038.3	1994.7	1891.1
27.5°	1065.1	1096.5	1178.0	1320.7	1559.0	1782.7	1938.7	2020.1	2034.3	1990.3	1885.9
28°	1052.6	1084.5	1166.3	1309.8	1550.5	1777.1	1934.3	2015.7	2029.8	1985.1	1880.3
28.5°	1039.7	1072.0	1154.6	1298.9	1542.0	1771.0	1929.4	2011.3	2025.0	1980.2	1874.6
29°	1026.4	1059.5	1142.9	1288.0	1533.6	1764.6	1924.2	2006.0	2019.3	1974.2	1868.2
29.5°	1013.1	1046.6	1131.2	1277.2	1524.3	1757.7	1918.6	2000.8	2013.3	1968.1	1861.3
30°	999.8	1033.7	1119.1	1266.3	1515.4	1750.4	1912.5	1994.7	2006.8	1961.3	1854.1
30.5°	986.1	1020.4	1107.0	1254.6	1506.1	1743.2	1906.1	1987.9	2000.0	1954.4	1846.4
31°	972.0	1007.5	1094.9	1243.3	1496.5	1735.5	1899.2	1981.0	1992.7	1946.8	1838.3
31.5°	957.9	993.7	1082.4	1232.0	1486.4	1727.1	1891.9	1973.8	1985.1	1938.7	1829.9
32°	943.4	980.4	1070.3	1219.9	1476.7	1719.0	1884.3	1965.7	1976.6	1929.8	1821.4
32.5°	928.8	966.7	1057.8	1208.6	1466.6	1710.1	1876.2	1957.7	1968.1	1921.0	1811.7
33°	914.7	952.6	1045.3	1196.5	1456.2	1701.3	1867.8	1948.8	1958.5	1911.7	1801.6
33.5°	899.8	938.5	1032.9	1184.8	1445.3	1691.6	1858.5	1939.1	1948.4	1900.8	1791.2
34°	885.3	924.4	1020.0	1172.3	1434.4	1681.5	1848.8	1929.0	1937.9	1889.9	1779.5
34.5°	869.6	909.9	1007.0	1160.2	1423.1	1671.4	1839.1	1918.6	1926.2	1877.0	1767.0
35°	854.7	895.0	994.1	1147.7	1411.4	1660.9	1828.3	1906.5	1912.5	1863.7	1753.7
35.5°	838.9	880.5	980.8	1135.2	1399.7	1649.3	1816.6	1893.6	1898.4	1848.4	1739.6
36°	824.0	865.5	967.5	1122.8	1387.6	1637.2	1803.7	1879.0	1882.3	1832.3	1726.7
36.5°	807.9	850.6	954.6	1109.9	1375.1	1625.1	1790.0	1862.9	1864.9	1815.8	1713.4
37°	792.6	835.3	940.9	1097.4	1363.0	1612.2	1775.8	1846.4	1844.0	1798.0	1698.8
37.5°	776.5	820.0	927.2	1084.0	1350.5	1600.5	1762.5	1828.3	1824.6	1777.5	1681.9
38°	761.1	804.3	913.5	1072.0	1339.2	1588.8	1747.6	1808.1	1801.6	1755.7	1663.0
38.5°	744.6	788.9	899.8	1059.1	1327.5	1577.9	1731.1	1786.7	1779.1	1733.1	1642.4
39°	729.7	773.2	886.1	1046.6	1315.9	1565.0	1712.5	1765.0	1754.5	1709.3	1621.4
39.5°	714.4	757.5	872.0	1034.1	1304.6	1550.9	1693.6	1741.6	1729.5	1684.7	1598.9
40°	699.9	741.8	857.9	1021.6	1292.5	1535.2	1672.6	1716.6	1702.9	1658.9	1575.5
40.5°	684.5	726.1	843.4	1008.7	1279.2	1517.0	1650.5	1691.6	1675.5	1632.3	1550.9
41°	670.8	710.7	828.9	995.8	1264.7	1498.9	1627.5	1664.6	1647.6	1604.9	1526.3
41.5°	656.7	695.4	814.8	982.5	1249.3	1479.5	1603.7	1637.6	1618.6	1577.1	1500.5
42°	643.8	680.1	800.2	968.8	1233.2	1459.0	1579.1	1609.3	1589.6	1548.9	1474.3
42.5°	630.5	665.6	785.7	954.6	1216.7	1438.8	1553.7	1580.3	1560.2	1519.4	1448.1
43°	617.2	651.5	770.8	939.7	1198.9	1417.4	1527.1	1551.3	1529.9	1490.8	1421.5
43.5°	604.3	637.4	755.9	924.4	1181.2	1395.3	1500.1	1521.5	1499.3	1460.2	1393.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	567.2	597.5	709.5	876.8	1125.2	1325.5	1417.4	1430.3	1406.2	1370.3	1310.2
45.5°	555.9	584.6	694.2	861.1	1105.4	1301.7	1388.4	1400.1	1375.5	1340.0	1282.0
46°	543.8	571.7	678.1	844.2	1086.1	1276.8	1360.2	1369.1	1344.1	1309.8	1253.8
46.5°	532.1	559.2	662.0	826.8	1066.3	1251.8	1331.6	1338.4	1313.0	1279.2	1225.6
47°	520.9	547.1	645.8	809.9	1045.8	1226.4	1302.1	1307.0	1281.6	1248.9	1197.3
47.5°	509.6	534.6	629.3	792.2	1024.8	1201.0	1272.7	1276.3	1251.4	1219.1	1168.7
48°	498.7	522.9	612.8	774.8	1003.8	1175.2	1244.1	1246.5	1220.7	1189.7	1140.9
48.5°	487.8	511.2	597.1	757.5	982.9	1149.4	1214.7	1215.9	1190.9	1159.8	1113.1
49°	477.3	499.5	580.9	739.4	961.9	1123.6	1185.6	1186.0	1159.4	1130.8	1085.7
49.5°	466.4	488.2	565.6	721.6	940.1	1097.4	1157.0	1155.4	1130.0	1101.0	1058.2
50°	456.0	476.9	549.9	703.9	918.8	1071.6	1128.4	1125.6	1100.6	1072.4	1030.4
50.5°	445.5	466.0	534.6	685.7	896.6	1045.8	1099.0	1096.1	1071.6	1043.7	1003.4
51°	435.4	454.7	520.1	667.6	874.8	1019.1	1070.3	1066.7	1042.5	1015.9	976.4
51.5°	425.7	444.3	505.5	649.1	853.5	994.1	1042.9	1038.5	1013.9	988.1	950.6
52°	415.6	433.4	491.0	631.3	831.3	968.3	1015.1	1009.9	986.5	960.7	924.0
52.5°	406.0	422.9	477.3	613.2	809.5	942.1	986.9	981.2	957.9	933.7	897.8
53°	396.3	412.4	463.2	595.0	787.7	916.7	959.5	953.8	931.7	907.5	872.4
53.5°	387.0	402.3	449.5	577.3	766.0	891.8	932.5	926.8	903.8	880.9	847.4
54°	377.3	392.3	435.8	559.6	744.2	866.4	906.3	900.2	878.4	855.1	822.4
54.5°	368.5	382.6	422.9	541.8	722.8	841.8	879.7	873.6	851.4	829.7	798.2
55°	359.2	372.9	410.0	524.5	701.9	817.6	853.5	847.8	828.1	805.9	774.4
55.5°	350.3	363.2	397.5	507.2	680.9	792.6	828.9	822.4	801.9	780.9	751.1
56°	341.9	354.0	385.0	489.8	659.9	768.8	803.1	797.4	778.5	756.7	727.7
56.5°	333.0	344.7	373.3	473.3	639.8	746.2	778.5	772.8	753.1	733.7	705.1
57°	324.5	335.0	361.2	457.2	618.8	722.4	754.3	749.0	731.3	710.7	682.5
57.5°	316.5	326.5	349.9	440.6	599.5	699.5	730.1	725.3	707.1	688.2	660.8
58°	308.0	317.7	339.0	424.9	579.3	676.9	707.1	702.3	685.7	666.0	639.8
58.5°	300.3	309.2	328.2	409.6	560.0	655.1	684.5	680.1	662.8	645.0	618.4
59°	292.7	300.7	317.7	394.3	540.6	633.3	662.0	657.9	642.2	624.1	598.3
59.5°	285.0	292.7	307.6	379.4	521.7	612.4	639.4	636.2	620.4	603.1	577.7
60°	277.4	284.6	297.5	364.8	503.1	591.4	617.6	615.2	599.1	583.3	558.4
60.5°	270.1	276.6	287.8	351.1	485.0	570.8	597.1	594.6	579.3	564.0	539.0
61°	262.8	268.9	278.2	337.0	467.6	550.7	576.9	574.5	557.9	544.6	520.1
61.5°	255.6	261.6	269.7	323.7	449.9	531.3	556.7	554.7	539.0	525.7	501.9
62°	248.7	254.4	260.8	311.2	433.0	512.4	537.0	535.8	520.1	507.2	484.2
62.5°	241.9	247.1	252.4	298.7	416.8	493.8	517.6	516.4	500.3	489.0	466.8
63°	235.4	239.9	244.3	286.6	400.7	474.9	499.1	497.9	483.0	471.3	449.5
63.5°	229.0	233.0	236.2	274.5	384.2	456.8	480.5	479.7	464.4	453.9	433.4
64°	222.5	226.6	228.6	263.3	370.1	439.4	463.2	462.4	446.7	437.0	416.8
64.5°	216.1	219.7	221.3	252.4	355.6	422.5	445.9	445.1	430.6	420.9	401.1
65°	209.2	213.3	214.5	241.9	341.1	406.4	428.9	428.5	414.0	405.2	386.2
65.5°	202.8	206.8	207.2	231.8	326.5	390.2	412.4	412.4	397.5	389.4	371.3
66°	196.3	200.4	200.4	221.7	312.0	374.1	396.7	396.7	382.2	374.1	356.4



TEST NUMBER: P776498

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	176.2	181.4	181.4	194.3	272.1	330.6	351.9	352.3	339.4	331.8	315.7
68°	170.1	175.4	175.4	185.4	259.6	316.5	338.2	338.6	325.3	318.1	302.0
68.5°	163.7	169.3	169.3	177.4	247.9	302.0	324.1	324.5	311.6	304.4	289.1
69°	157.2	163.3	163.3	168.9	235.8	288.6	310.4	310.8	297.5	291.9	276.6
69.5°	151.2	156.8	157.6	161.7	225.0	275.3	296.3	297.1	285.0	279.4	264.5
70°	144.3	150.8	152.0	154.4	214.1	262.4	283.4	284.6	272.9	267.3	252.4
70.5°	138.7	144.3	146.7	147.6	203.6	250.4	270.5	272.1	260.8	255.6	241.1
71°	133.0	138.7	141.5	141.1	193.1	239.1	258.8	260.4	249.1	243.9	230.2
71.5°	127.0	133.4	136.3	135.1	183.4	227.4	247.1	248.7	237.5	232.6	219.3
72°	121.3	127.8	131.0	128.6	173.8	216.1	235.4	237.0	226.6	221.7	208.8
72.5°	115.7	122.6	126.2	122.6	164.5	205.2	224.6	226.2	215.7	211.2	198.3
73°	110.1	116.9	120.9	116.1	155.6	194.7	213.3	215.7	205.2	200.8	188.7
73.5°	104.0	111.3	115.7	110.9	146.7	184.6	203.6	205.2	195.1	191.1	179.0
74°	98.4	106.0	110.9	105.6	138.7	175.0	193.1	195.5	185.4	181.4	169.7
74.5°	93.1	100.8	106.0	100.4	130.6	165.7	183.0	185.4	175.8	172.5	160.9
75°	87.5	95.1	101.2	95.5	123.0	156.4	173.4	176.2	166.5	163.3	152.0
75.5°	82.2	90.3	96.4	91.1	115.3	147.6	164.5	166.9	157.6	154.4	143.5
76°	77.0	85.1	91.9	86.7	108.4	139.1	155.2	158.0	148.8	145.5	135.1
76.5°	72.2	79.8	87.1	82.2	101.6	130.6	146.7	149.6	140.7	137.5	127.4
77°	67.3	75.0	82.6	78.2	95.1	123.0	138.3	141.1	132.2	129.4	119.7
77.5°	63.3	70.1	78.2	74.6	88.7	115.3	130.2	133.0	124.2	121.7	112.1
78°	59.7	65.7	73.8	70.5	82.6	107.6	122.2	125.4	116.5	114.1	104.8
78.5°	56.0	61.7	69.3	66.9	76.6	100.8	114.9	117.7	109.3	106.8	98.0
79°	52.4	57.6	65.3	62.9	71.4	93.9	107.2	110.5	101.6	99.6	91.5
79.5°	49.2	54.0	61.3	59.3	65.7	87.1	100.4	103.2	94.7	93.1	84.7
80°	45.6	50.8	57.2	55.6	60.9	81.0	93.5	95.9	87.9	86.3	78.2
80.5°	42.7	47.2	53.2	52.4	55.6	75.0	86.7	89.5	81.0	79.8	72.6
81°	39.5	43.9	49.6	48.8	51.6	68.9	80.6	83.0	74.6	73.4	66.5
81.5°	36.3	40.3	46.4	45.2	46.8	63.3	74.2	76.6	68.1	67.3	60.9
82°	33.1	37.1	42.7	41.9	42.7	58.1	68.5	70.5	62.1	61.7	55.2
82.5°	30.2	33.9	39.5	38.7	38.7	52.8	62.5	64.5	56.0	56.0	50.0
83°	27.0	30.6	36.3	35.5	35.1	48.0	57.2	58.9	50.4	50.4	45.2
83.5°	23.8	27.4	33.1	32.7	31.8	43.5	51.6	53.2	44.3	45.2	40.7
84°	21.0	24.6	29.8	29.4	28.6	39.5	46.8	48.0	39.1	40.3	36.3
84.5°	18.1	21.4	26.6	26.6	25.0	35.1	41.5	42.7	33.5	35.5	31.8
85°	15.3	18.5	23.4	23.4	21.8	31.0	37.5	37.9	28.2	30.6	27.4
85.5°	12.9	15.3	20.6	20.6	18.9	27.0	33.1	33.5	23.0	25.8	23.0
86°	10.5	12.9	17.3	17.7	16.1	23.0	28.6	29.0	17.3	21.0	18.5
86.5°	8.1	10.9	14.9	14.9	13.7	19.8	24.2	24.2	12.9	17.3	14.9
87°	6.0	8.5	12.1	12.5	11.3	16.1	19.8	19.8	10.5	13.7	11.3
87.5°	4.0	6.0	9.7	10.1	8.9	12.9	16.1	15.7	8.1	10.5	7.7
88°	2.4	4.0	6.9	7.3	6.9	10.1	12.1	12.1	5.6	6.9	4.4
88.5°	1.2	2.4	4.4	4.8	4.8	7.3	8.9	8.1	3.2	3.2	1.2



TEST NUMBER: P776498

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-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	0.4	0.4	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776498

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1727.5	1727.5	1727.5	1727.5	1727.5	1727.5
0.5°	1732.3	1731.1	1724.6	1719.0	1713.8	1710.9
1°	1736.7	1730.7	1719.0	1708.9	1700.5	1697.2
1.5°	1741.2	1729.9	1713.0	1698.4	1687.2	1683.1
2°	1745.6	1729.1	1706.9	1688.4	1673.8	1668.6
2.5°	1750.0	1728.3	1700.9	1677.5	1660.9	1654.9
3°	1754.1	1727.1	1694.8	1667.0	1648.4	1641.6
3.5°	1757.7	1726.3	1688.4	1656.5	1636.4	1628.7
4°	1761.7	1725.0	1681.9	1646.4	1623.9	1616.6
4.5°	1765.4	1723.8	1675.5	1636.4	1612.2	1604.1
5°	1768.6	1722.6	1668.6	1626.7	1600.9	1592.4
5.5°	1771.8	1721.0	1662.2	1616.6	1589.6	1580.3
6°	1775.0	1719.4	1655.3	1607.3	1578.3	1568.6
6.5°	1777.9	1717.8	1648.9	1597.7	1567.0	1556.9
7°	1780.7	1716.2	1642.0	1588.4	1555.7	1544.8
7.5°	1783.5	1714.2	1635.1	1578.7	1544.4	1533.2
8°	1785.9	1712.1	1628.7	1569.4	1533.2	1521.5
8.5°	1788.3	1710.1	1621.4	1559.8	1521.9	1509.8
9°	1790.8	1707.7	1614.6	1550.1	1510.2	1498.1
9.5°	1792.8	1705.3	1607.7	1540.4	1499.3	1486.4
10°	1794.8	1702.9	1600.9	1531.1	1488.0	1474.7
10.5°	1796.4	1700.1	1593.6	1521.1	1476.7	1463.4
11°	1798.0	1697.2	1586.8	1511.4	1465.4	1451.3
11.5°	1799.2	1694.4	1579.5	1501.3	1454.1	1439.6
12°	1800.4	1691.6	1572.3	1491.6	1442.8	1427.9
12.5°	1801.6	1688.4	1564.6	1481.5	1431.6	1416.6
13°	1802.4	1684.7	1557.3	1471.5	1420.7	1405.0
13.5°	1803.3	1681.5	1549.7	1461.4	1409.0	1393.7
14°	1803.7	1677.9	1542.0	1451.3	1397.7	1382.0
14.5°	1803.7	1673.8	1534.4	1440.8	1386.4	1370.3
15°	1803.7	1669.8	1526.7	1430.8	1375.1	1359.0
15.5°	1803.7	1665.8	1518.2	1420.3	1363.0	1347.3
16°	1803.3	1661.3	1510.2	1409.8	1352.1	1336.0
16.5°	1802.9	1656.9	1502.1	1399.3	1340.9	1324.7
17°	1802.0	1652.1	1493.6	1389.2	1329.6	1313.0
17.5°	1800.8	1647.2	1484.8	1378.3	1317.9	1301.7
18°	1799.6	1642.4	1476.3	1367.9	1306.6	1290.1
18.5°	1798.0	1636.8	1467.4	1356.6	1294.9	1278.8
19°	1796.0	1631.5	1458.6	1346.1	1283.6	1267.5
19.5°	1794.0	1625.9	1449.3	1335.2	1272.3	1255.8
20°	1791.6	1619.8	1440.4	1324.7	1261.0	1244.5
20.5°	1789.1	1614.2	1430.8	1313.4	1249.3	1232.8
21°	1786.3	1607.7	1421.5	1302.1	1238.1	1221.5



TEST NUMBER: P776498

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1776.2	1587.6	1392.1	1268.7	1203.0	1186.4
23°	1771.8	1580.7	1382.0	1257.8	1191.3	1174.8
23.5°	1767.8	1573.1	1371.9	1246.1	1179.6	1163.1
24°	1762.9	1565.8	1361.8	1234.8	1167.9	1151.4
24.5°	1758.1	1557.7	1351.3	1223.1	1155.8	1139.3
25°	1752.9	1549.7	1340.9	1211.8	1144.1	1127.2
25.5°	1747.6	1541.6	1330.0	1200.2	1132.4	1115.1
26°	1741.6	1533.6	1319.5	1188.5	1120.3	1103.0
26.5°	1735.5	1525.1	1308.6	1176.8	1107.8	1090.9
27°	1729.1	1515.8	1297.7	1165.1	1095.7	1078.0
27.5°	1722.2	1506.9	1286.4	1153.0	1083.2	1065.1
28°	1715.0	1497.7	1275.1	1140.9	1070.3	1052.6
28.5°	1707.7	1488.4	1263.9	1128.8	1058.2	1039.7
29°	1700.1	1478.3	1252.6	1117.1	1045.3	1026.4
29.5°	1692.0	1468.6	1241.3	1105.0	1032.9	1013.1
30°	1683.5	1458.6	1229.6	1092.9	1020.0	999.8
30.5°	1674.7	1448.1	1217.5	1080.0	1006.6	986.1
31°	1665.8	1437.6	1205.8	1067.9	993.3	972.0
31.5°	1656.1	1427.1	1194.1	1055.4	979.6	957.9
32°	1646.8	1415.4	1181.6	1042.9	965.9	943.4
32.5°	1636.4	1404.5	1169.5	1030.4	952.2	928.8
33°	1625.9	1392.9	1157.0	1017.5	938.5	914.7
33.5°	1614.6	1381.2	1144.9	1004.6	924.0	899.8
34°	1602.5	1368.7	1132.0	991.7	909.9	885.3
34.5°	1590.4	1356.2	1119.5	978.8	895.8	869.6
35°	1577.5	1343.7	1106.6	965.5	880.9	854.7
35.5°	1565.4	1332.0	1094.1	952.2	866.4	838.9
36°	1554.1	1320.7	1081.6	939.3	851.4	824.0
36.5°	1543.2	1309.4	1069.1	925.6	836.1	807.9
37°	1531.9	1298.1	1056.6	911.9	821.2	792.6
37.5°	1519.4	1286.8	1044.1	898.6	805.9	776.5
38°	1505.3	1274.7	1031.6	884.9	790.6	761.1
38.5°	1489.6	1261.8	1019.1	871.6	774.8	744.6
39°	1471.5	1247.7	1007.0	857.5	759.5	729.7
39.5°	1452.5	1232.4	993.7	844.2	743.8	714.4
40°	1432.4	1215.9	980.0	829.7	728.5	699.9
40.5°	1412.2	1198.5	965.9	816.0	712.4	684.5
41°	1391.2	1181.2	951.4	801.9	697.0	670.8
41.5°	1369.1	1162.7	936.9	787.7	681.7	656.7
42°	1346.9	1144.1	921.2	772.8	666.8	643.8
42.5°	1324.3	1125.2	905.5	758.3	652.7	630.5
43°	1301.7	1105.8	889.3	743.4	638.2	617.2
43.5°	1277.6	1086.1	873.2	728.1	624.5	604.3

TEST NUMBER: P776498

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1205.4	1025.6	822.0	681.3	584.2	567.2
45.5°	1180.4	1004.6	804.7	665.6	571.7	555.9
46°	1155.4	984.5	787.3	649.1	558.4	543.8
46.5°	1131.6	962.7	769.6	633.3	546.3	532.1
47°	1105.8	941.7	751.9	616.8	534.2	520.9
47.5°	1080.4	920.0	733.7	600.3	522.1	509.6
48°	1055.4	899.4	716.0	583.8	510.0	498.7
48.5°	1031.2	877.6	697.8	567.6	498.3	487.8
49°	1005.4	856.7	680.1	551.5	486.6	477.3
49.5°	980.4	835.3	662.0	536.2	475.3	466.4
50°	955.4	813.5	643.8	520.5	464.0	456.0
50.5°	931.7	792.6	625.7	505.5	452.7	445.5
51°	905.9	771.6	608.7	490.2	441.8	435.4
51.5°	882.9	750.7	590.6	476.1	431.0	425.7
52°	857.9	729.3	573.3	461.6	420.5	415.6
52.5°	834.5	707.9	555.5	447.5	410.0	406.0
53°	810.7	687.8	538.2	433.4	399.9	396.3
53.5°	787.7	667.6	520.9	420.5	389.4	387.0
54°	764.0	647.0	504.3	407.2	379.4	377.3
54.5°	741.8	626.9	487.8	393.9	369.7	368.5
55°	719.2	607.9	471.3	381.4	360.0	359.2
55.5°	697.4	588.2	454.7	369.3	350.7	350.3
56°	675.3	569.2	439.4	357.2	341.5	341.9
56.5°	653.9	549.9	423.7	345.1	332.2	333.0
57°	632.9	531.3	408.4	333.8	322.9	324.5
57.5°	612.8	512.8	393.1	322.9	314.0	316.5
58°	592.2	495.5	379.0	312.4	305.6	308.0
58.5°	572.9	478.1	364.8	302.0	297.1	300.3
59°	552.7	460.8	351.1	291.9	289.1	292.7
59.5°	533.8	443.5	337.4	282.2	281.0	285.0
60°	515.2	427.3	324.5	272.9	272.9	277.4
60.5°	497.1	410.8	311.6	263.7	265.3	270.1
61°	478.9	395.5	299.1	254.8	257.6	262.8
61.5°	462.0	380.6	287.4	246.3	250.4	255.6
62°	444.7	365.2	275.7	238.3	243.1	248.7
62.5°	428.1	350.7	264.1	230.2	236.2	241.9
63°	411.6	336.2	253.2	222.5	229.4	235.4
63.5°	395.9	322.5	242.7	214.9	222.1	229.0
64°	380.2	308.8	232.6	208.0	216.1	222.5
64.5°	365.2	295.9	222.5	201.2	209.6	216.1
65°	351.5	283.0	213.3	194.3	203.2	209.2
65.5°	337.4	270.9	204.0	187.9	197.1	202.8
66°	323.3	258.4	195.1	181.8	191.1	196.3



TEST NUMBER: P776498

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	282.6	224.6	170.1	163.7	172.5	176.2
68°	270.1	213.7	162.5	158.0	166.1	170.1
68.5°	258.0	203.2	155.2	152.4	160.0	163.7
69°	246.3	193.5	148.0	147.1	154.0	157.2
69.5°	234.6	183.8	141.5	142.3	148.0	151.2
70°	223.3	174.2	135.1	137.1	142.3	144.3
70.5°	212.9	165.3	128.6	132.2	136.7	138.7
71°	202.4	156.4	122.2	127.0	131.0	133.0
71.5°	191.9	148.0	116.1	121.7	125.4	127.0
72°	182.2	140.3	110.5	116.9	119.7	121.3
72.5°	172.5	133.0	104.8	112.1	114.1	115.7
73°	163.3	125.4	99.2	107.2	108.4	110.1
73.5°	154.4	117.7	94.3	102.4	103.2	104.0
74°	145.9	110.1	89.5	98.0	98.0	98.4
74.5°	137.5	103.2	85.1	93.1	92.7	93.1
75°	129.4	96.8	80.6	88.7	87.5	87.5
75.5°	121.7	90.3	76.2	84.3	82.2	82.2
76°	114.1	84.3	72.2	79.8	77.4	77.0
76.5°	107.2	78.6	68.1	75.4	72.2	72.2
77°	100.0	73.0	64.5	71.0	67.7	67.3
77.5°	93.5	67.7	60.9	66.9	62.9	63.3
78°	87.1	62.5	57.6	62.5	58.9	59.7
78.5°	80.6	57.6	54.0	58.5	54.8	56.0
79°	75.0	52.8	50.4	54.8	51.2	52.4
79.5°	68.9	48.4	47.2	50.8	48.0	49.2
80°	63.3	43.9	43.9	46.8	44.3	45.6
80.5°	58.1	39.9	40.7	43.5	41.1	42.7
81°	53.2	36.3	37.5	39.9	37.9	39.5
81.5°	48.4	32.7	34.3	36.7	34.3	36.3
82°	43.5	29.0	31.4	33.5	31.0	33.1
82.5°	39.5	25.8	28.6	30.2	28.2	30.2
83°	35.9	23.0	25.8	27.4	25.0	27.0
83.5°	31.8	20.2	22.6	24.2	21.8	23.8
84°	27.8	17.3	20.2	21.4	18.9	21.0
84.5°	23.8	14.5	17.3	18.5	16.1	18.1
85°	19.8	12.5	14.5	15.7	13.7	15.3
85.5°	16.5	10.1	12.1	13.3	11.3	12.9
86°	13.3	8.1	9.7	10.9	8.9	10.5
86.5°	10.1	5.6	7.3	8.1	6.9	8.1
87°	7.3	4.0	4.8	5.6	4.8	6.0
87.5°	4.8	2.0	2.8	3.6	3.2	4.0
88°	2.0	0.8	0.8	1.6	2.0	2.4
88.5°	0.4	0.0	0.0	0.4	0.8	1.2



TEST NUMBER: P776498
CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-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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Scaled Data Report



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Scaled Data Report





21.5°	1209.8	1236.8	1311.0	1438.8	1640.8	1827.8	1962.1	2037.1	2053.2	2015.3	1923.8
22°	1198.1	1226.0	1300.1	1429.9	1635.1	1825.8	1962.1	2037.9	2053.6	2015.3	1922.6



44°	591.8	624.1	740.6	909.1	1162.7	1372.3	1473.5	1491.6	1467.8	1430.8	1365.8
44.5°	579.7	610.4	725.3	893.4	1144.5	1349.3	1445.3	1461.0	1438.0	1400.5	1338.4



66.5°	189.5	194.3	193.9	212.1	297.5	359.2	381.0	381.0	367.3	359.6	343.1
67°	183.0	187.9	187.5	202.8	284.6	345.1	366.1	366.1	353.2	345.9	329.4



89°	0.4	1.2	2.0	2.8	3.2	4.4	5.2	4.0	0.8	0.4	0.0
89.5°	0.0	0.4	0.4	0.8	1.6	2.0	2.0	0.8	0.0	0.0	0.0

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21.5°	1783.1	1601.3	1411.8	1291.3	1226.4	1209.8
22°	1779.5	1594.4	1402.1	1280.0	1214.7	1198.1



44°	1254.2	1065.9	856.3	712.8	610.8	591.8
44.5°	1228.8	1045.8	838.9	697.4	597.5	579.7



66.5°	309.6	246.7	186.7	175.8	184.6	189.5
67°	295.5	235.0	178.2	169.7	178.6	183.0

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89°	0.0	0.0	0.0	0.0	0.4	0.4
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)