

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: P776426

Luminaire Tested: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776426  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B015-HCD6TSQMB)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K  
Description: 6 INCH SQUARE MEDIUM MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

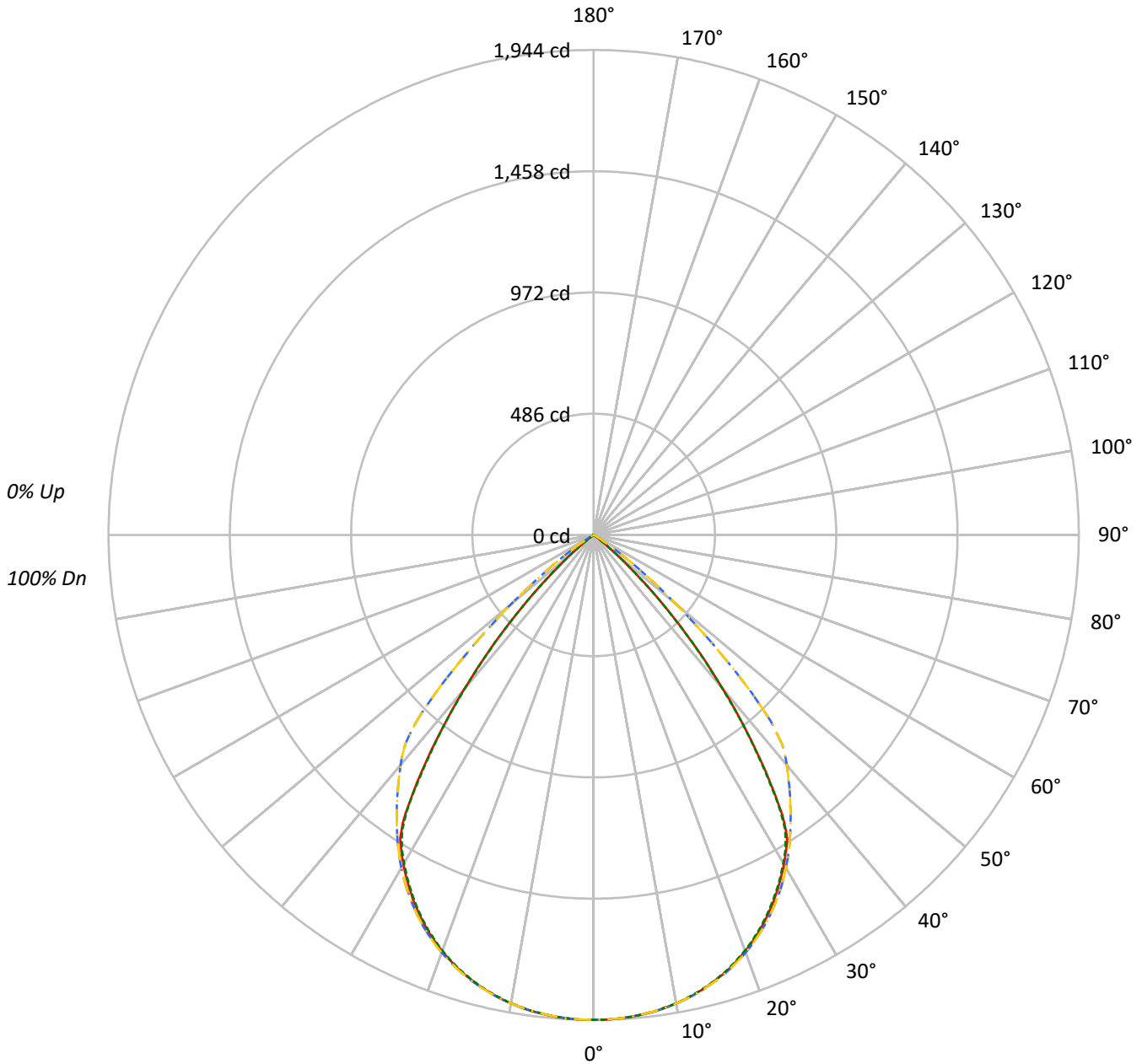
Lumens per Lamp: N/A  
Luminaire Lumens: 2804.8 lumens  
Efficiency: N/A  
Efficacy: 72.9 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.23  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 38.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92					92			
2	106	101	96	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84					84			
3	100	93	87	83	98	91	86	82	89	84	81	86	83	80	84	81	78	77					77			
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	74	71	70					70			
5	88	79	72	67	87	78	72	67	76	71	66	74	70	66	73	69	65	64					64			
6	83	73	66	61	81	72	66	61	71	65	61	69	64	60	68	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	69	58	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	52	47	43	42					42			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	83692	83692	83692	83692
5°	83653	83622	83653	83622
10°	83374	83321	83374	83321
15°	82663	82592	82663	82592
20°	81347	81237	81347	81237
25°	79118	78909	79118	78909
30°	75788	75554	75788	75554
35°	66332	65901	66332	65901
40°	45296	45009	45296	45009
45°	23583	23607	23583	23607
50°	6872	6792	6872	6792
55°	203	263	203	263
60°	69	69	69	69
65°	41	41	41	41
70°	50	50	50	50
75°	0	67	0	67
80°	0	0	0	0
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 54527 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.8	6.6
10°-20°	522.7	18.6
20°-30°	767.2	27.4
30°-40°	814.1	29.0
40°-50°	454.5	16.2
50°-60°	61.5	2.2
60°-70°	0.7	0.0
70°-80°	0.2	0.0
80°-90°	0.0	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°	1473.8	52.5
0°-40°	2287.9	81.6
0°-60°	2803.8	100.0
0°-90°	2804.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2804.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1944	1944	1944	1944	1944	
5°	1936	1935	1936	1935	1936	184
15°	1854	1853	1854	1853	1854	522
25°	1665	1661	1665	1661	1665	765
35°	1262	1254	1262	1254	1262	762
45°	387	388	387	388	387	309
55°	3	4	3	4	3	17
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
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°	1943.8	1943.8	1943.8	1943.8	1943.8	1943.8	1943.8	1943.8	1943.8	1943.8	1943.8
0.5°	1944.5	1943.8	1943.8	1943.4	1943.8	1943.4	1943.8	1943.8	1944.5	1943.8	1943.8
1°	1944.2	1943.8	1943.4	1943.4	1943.8	1943.4	1943.4	1943.8	1944.2	1943.8	1943.4
1.5°	1943.8	1943.0	1943.0	1943.0	1943.0	1943.0	1943.0	1943.0	1943.8	1943.0	1943.0
2°	1943.0	1942.6	1942.2	1942.2	1942.6	1942.2	1942.2	1942.6	1943.0	1942.6	1942.2
2.5°	1942.2	1941.8	1941.4	1941.4	1941.8	1941.4	1941.4	1941.8	1942.2	1941.8	1941.4
3°	1941.4	1940.6	1940.6	1940.6	1940.6	1940.6	1940.6	1940.6	1941.4	1940.6	1940.6
3.5°	1940.2	1939.8	1939.5	1939.5	1939.5	1939.5	1939.5	1939.8	1940.2	1939.8	1939.5
4°	1939.1	1938.3	1937.9	1937.9	1938.3	1937.9	1937.9	1938.3	1939.1	1938.3	1937.9
4.5°	1937.5	1936.7	1936.7	1936.3	1936.7	1936.3	1936.7	1936.7	1937.5	1936.7	1936.7
5°	1935.5	1935.1	1934.8	1934.8	1934.8	1934.8	1934.8	1935.1	1935.5	1935.1	1934.8
5.5°	1933.6	1933.2	1932.8	1932.8	1932.8	1932.8	1932.8	1933.2	1933.6	1933.2	1932.8
6°	1931.6	1931.2	1930.8	1930.4	1930.8	1930.4	1930.8	1931.2	1931.6	1931.2	1930.8
6.5°	1929.3	1928.9	1928.5	1928.5	1928.5	1928.5	1928.5	1928.9	1929.3	1928.9	1928.5
7°	1926.9	1926.5	1926.1	1925.7	1925.7	1925.7	1926.1	1926.5	1926.9	1926.5	1926.1
7.5°	1924.2	1923.8	1923.4	1923.0	1923.0	1923.0	1923.4	1923.8	1924.2	1923.8	1923.4
8°	1921.1	1920.7	1920.7	1920.3	1920.3	1920.3	1920.7	1920.7	1921.1	1920.7	1920.7
8.5°	1917.9	1917.5	1917.5	1917.1	1916.7	1917.1	1917.5	1917.5	1917.9	1917.5	1917.5
9°	1914.4	1914.4	1914.0	1913.6	1913.2	1913.6	1914.0	1914.4	1914.4	1914.4	1914.0
9.5°	1910.9	1910.9	1910.5	1910.1	1909.7	1910.1	1910.5	1910.9	1910.9	1910.9	1910.5
10°	1907.0	1907.0	1907.0	1906.2	1905.8	1906.2	1907.0	1907.0	1907.0	1907.0	1907.0
10.5°	1903.0	1903.0	1903.0	1902.3	1901.9	1902.3	1903.0	1903.0	1903.0	1903.0	1903.0
11°	1898.3	1898.7	1898.7	1897.9	1897.2	1897.9	1898.7	1898.7	1898.3	1898.7	1898.7
11.5°	1894.0	1894.4	1894.4	1893.2	1892.5	1893.2	1894.4	1894.4	1894.0	1894.4	1894.4
12°	1889.3	1889.7	1889.7	1888.5	1887.8	1888.5	1889.7	1889.7	1889.3	1889.7	1889.7
12.5°	1884.2	1884.6	1885.0	1883.5	1882.7	1883.5	1885.0	1884.6	1884.2	1884.6	1885.0
13°	1878.8	1879.5	1879.9	1878.4	1877.2	1878.4	1879.9	1879.5	1878.8	1879.5	1879.9
13.5°	1873.3	1874.1	1874.5	1872.9	1871.7	1872.9	1874.5	1874.1	1873.3	1874.1	1874.5
14°	1867.0	1868.2	1869.0	1867.0	1865.8	1867.0	1869.0	1868.2	1867.0	1868.2	1869.0
14.5°	1861.1	1862.3	1863.1	1861.1	1859.6	1861.1	1863.1	1862.3	1861.1	1862.3	1863.1
15°	1854.5	1856.0	1856.8	1854.9	1852.9	1854.9	1856.8	1856.0	1854.5	1856.0	1856.8
15.5°	1848.2	1849.4	1850.6	1848.2	1846.3	1848.2	1850.6	1849.4	1848.2	1849.4	1850.6
16°	1841.2	1842.7	1843.9	1841.6	1839.2	1841.6	1843.9	1842.7	1841.2	1842.7	1843.9
16.5°	1834.1	1835.7	1836.9	1834.5	1832.2	1834.5	1836.9	1835.7	1834.1	1835.7	1836.9
17°	1826.3	1828.6	1829.8	1827.1	1824.3	1827.1	1829.8	1828.6	1826.3	1828.6	1829.8
17.5°	1818.9	1820.8	1822.4	1819.6	1816.5	1819.6	1822.4	1820.8	1818.9	1820.8	1822.4
18°	1810.6	1813.0	1814.5	1811.4	1808.3	1811.4	1814.5	1813.0	1810.6	1813.0	1814.5
18.5°	1802.4	1805.1	1806.7	1803.6	1800.1	1803.6	1806.7	1805.1	1802.4	1805.1	1806.7
19°	1793.8	1796.5	1798.5	1794.6	1791.0	1794.6	1798.5	1796.5	1793.8	1796.5	1798.5
19.5°	1784.8	1787.9	1789.9	1786.0	1782.4	1786.0	1789.9	1787.9	1784.8	1787.9	1789.9
20°	1775.4	1778.9	1781.3	1777.0	1773.0	1777.0	1781.3	1778.9	1775.4	1778.9	1781.3
20.5°	1766.0	1769.9	1772.3	1767.6	1763.2	1767.6	1772.3	1769.9	1766.0	1769.9	1772.3
21°	1756.2	1760.1	1762.9	1758.2	1753.1	1758.2	1762.9	1760.1	1756.2	1760.1	1762.9



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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°	1724.5	1729.6	1732.7	1727.2	1721.0	1727.2	1732.7	1729.6	1724.5	1729.6	1732.7
23°	1713.5	1718.6	1722.1	1716.3	1709.6	1716.3	1722.1	1718.6	1713.5	1718.6	1722.1
23.5°	1702.2	1707.6	1711.6	1704.9	1697.9	1704.9	1711.6	1707.6	1702.2	1707.6	1711.6
24°	1690.0	1696.3	1700.2	1693.2	1686.1	1693.2	1700.2	1696.3	1690.0	1696.3	1700.2
24.5°	1677.9	1684.1	1688.8	1681.4	1674.0	1681.4	1688.8	1684.1	1677.9	1684.1	1688.8
25°	1665.4	1672.0	1676.7	1668.9	1661.0	1668.9	1676.7	1672.0	1665.4	1672.0	1676.7
25.5°	1652.8	1659.5	1665.0	1656.3	1648.1	1656.3	1665.0	1659.5	1652.8	1659.5	1665.0
26°	1639.9	1647.0	1652.4	1643.8	1634.8	1643.8	1652.4	1647.0	1639.9	1647.0	1652.4
26.5°	1626.6	1633.6	1639.5	1630.5	1621.5	1630.5	1639.5	1633.6	1626.6	1633.6	1639.5
27°	1612.5	1620.7	1626.6	1617.2	1607.8	1617.2	1626.6	1620.7	1612.5	1620.7	1626.6
27.5°	1598.4	1607.0	1613.3	1603.1	1594.1	1603.1	1613.3	1607.0	1598.4	1607.0	1613.3
28°	1584.3	1592.9	1599.6	1589.4	1579.2	1589.4	1599.6	1592.9	1584.3	1592.9	1599.6
28.5°	1569.8	1578.8	1585.5	1575.3	1564.7	1575.3	1585.5	1578.8	1569.8	1578.8	1585.5
29°	1554.9	1564.7	1571.0	1560.8	1549.8	1560.8	1571.0	1564.7	1554.9	1564.7	1571.0
29.5°	1540.1	1549.8	1556.5	1546.3	1535.0	1546.3	1556.5	1549.8	1540.1	1549.8	1556.5
30°	1524.4	1535.0	1541.2	1531.4	1519.7	1531.4	1541.2	1535.0	1524.4	1535.0	1541.2
30.5°	1509.1	1520.1	1526.0	1516.6	1504.0	1516.6	1526.0	1520.1	1509.1	1520.1	1526.0
31°	1493.1	1504.8	1510.3	1501.3	1488.0	1501.3	1510.3	1504.8	1493.1	1504.8	1510.3
31.5°	1477.0	1489.5	1494.2	1485.6	1471.5	1485.6	1494.2	1489.5	1477.0	1489.5	1494.2
32°	1460.6	1473.5	1478.2	1470.0	1450.8	1470.0	1478.2	1473.5	1460.6	1473.5	1478.2
32.5°	1443.3	1457.4	1461.7	1453.9	1429.6	1453.9	1461.7	1457.4	1443.3	1457.4	1461.7
33°	1415.5	1441.4	1444.9	1437.9	1406.5	1437.9	1444.9	1441.4	1415.5	1441.4	1444.9
33.5°	1385.4	1425.3	1428.1	1421.4	1375.2	1421.4	1428.1	1425.3	1385.4	1425.3	1428.1
34°	1348.6	1408.9	1410.8	1401.4	1340.3	1401.4	1410.8	1408.9	1348.6	1408.9	1410.8
34.5°	1305.9	1391.3	1393.6	1379.5	1298.8	1379.5	1393.6	1391.3	1305.9	1391.3	1393.6
35°	1262.0	1365.0	1376.4	1357.2	1253.8	1357.2	1376.4	1365.0	1262.0	1365.0	1376.4
35.5°	1218.2	1339.2	1359.1	1329.0	1208.4	1329.0	1359.1	1339.2	1218.2	1339.2	1359.1
36°	1172.8	1304.3	1341.5	1297.7	1163.4	1297.7	1341.5	1304.3	1172.8	1304.3	1341.5
36.5°	1126.9	1267.5	1324.3	1259.7	1119.1	1259.7	1324.3	1267.5	1126.9	1267.5	1324.3
37°	1080.3	1225.6	1307.1	1219.4	1073.7	1219.4	1307.1	1225.6	1080.3	1225.6	1307.1
37.5°	1035.3	1183.7	1289.4	1176.7	1029.1	1176.7	1289.4	1183.7	1035.3	1183.7	1289.4
38°	988.3	1140.6	1272.2	1133.2	984.0	1133.2	1272.2	1140.6	988.3	1140.6	1272.2
38.5°	942.9	1097.6	1254.6	1090.5	938.6	1090.5	1254.6	1097.6	942.9	1097.6	1254.6
39°	897.5	1053.7	1237.8	1048.2	892.4	1048.2	1237.8	1053.7	897.5	1053.7	1237.8
39.5°	852.1	1010.6	1220.5	1005.9	846.6	1005.9	1220.5	1010.6	852.1	1010.6	1220.5
40°	805.9	966.8	1203.3	963.3	800.8	963.3	1203.3	966.8	805.9	966.8	1203.3
40.5°	760.8	923.7	1186.1	920.2	756.1	920.2	1186.1	923.7	760.8	923.7	1186.1
41°	717.0	880.6	1168.4	877.5	711.9	877.5	1168.4	880.6	717.0	880.6	1168.4
41.5°	673.1	837.6	1148.9	834.0	669.6	834.0	1148.9	837.6	673.1	837.6	1148.9
42°	629.3	794.5	1126.9	791.0	626.9	791.0	1126.9	794.5	629.3	794.5	1126.9
42.5°	587.4	752.2	1098.4	748.3	584.6	748.3	1098.4	752.2	587.4	752.2	1098.4
43°	545.5	709.5	1065.9	706.4	543.5	706.4	1065.9	709.5	545.5	709.5	1065.9
43.5°	504.7	668.0	1031.0	665.3	502.4	665.3	1031.0	668.0	504.7	668.0	1031.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	387.3	547.0	895.5	545.5	387.7	545.5	895.5	547.0	387.3	547.0	895.5
45.5°	352.0	507.9	844.6	506.7	352.0	506.7	844.6	507.9	352.0	507.9	844.6
46°	317.6	469.5	794.1	468.3	317.6	468.3	794.1	469.5	317.6	469.5	794.1
46.5°	283.5	431.9	744.4	430.7	282.7	430.7	744.4	431.9	283.5	431.9	744.4
47°	250.2	395.1	694.6	395.1	249.0	395.1	694.6	395.1	250.2	395.1	694.6
47.5°	218.1	360.2	647.3	360.6	218.5	360.6	647.3	360.2	218.1	360.2	647.3
48°	189.9	326.6	601.5	326.6	189.9	326.6	601.5	326.6	189.9	326.6	601.5
48.5°	164.1	293.7	557.2	293.3	163.7	293.3	557.2	293.7	164.1	293.7	557.2
49°	142.5	261.2	514.1	260.8	139.0	260.8	514.1	261.2	142.5	261.2	514.1
49.5°	122.2	229.9	472.2	229.9	119.8	229.9	472.2	229.9	122.2	229.9	472.2
50°	102.6	201.3	431.5	201.3	101.4	201.3	431.5	201.3	102.6	201.3	431.5
50.5°	84.6	176.2	392.4	173.9	83.8	173.9	392.4	176.2	84.6	176.2	392.4
51°	69.3	152.3	357.1	148.8	69.3	148.8	357.1	152.3	69.3	152.3	357.1
51.5°	55.6	131.6	322.7	128.4	54.4	128.4	322.7	131.6	55.6	131.6	322.7
52°	44.2	111.2	289.0	108.9	41.9	108.9	289.0	111.2	44.2	111.2	289.0
52.5°	33.3	92.4	256.1	90.1	29.8	90.1	256.1	92.4	33.3	92.4	256.1
53°	22.3	75.6	225.5	74.0	18.4	74.0	225.5	75.6	22.3	75.6	225.5
53.5°	14.9	60.3	197.7	58.0	11.0	58.0	197.7	60.3	14.9	60.3	197.7
54°	7.0	48.6	171.9	45.0	6.3	45.0	171.9	48.6	7.0	48.6	171.9
54.5°	4.3	37.2	149.6	33.3	4.7	33.3	149.6	37.2	4.3	37.2	149.6
55°	2.7	25.8	128.4	21.9	3.5	21.9	128.4	25.8	2.7	25.8	128.4
55.5°	1.2	16.4	108.9	14.9	2.3	14.9	108.9	16.4	1.2	16.4	108.9
56°	0.8	7.0	90.8	11.0	1.2	11.0	90.8	7.0	0.8	7.0	90.8
56.5°	0.8	3.5	73.6	6.7	0.8	6.7	73.6	3.5	0.8	3.5	73.6
57°	0.8	2.0	59.9	3.5	0.8	3.5	59.9	2.0	0.8	2.0	59.9
57.5°	0.8	1.6	48.2	1.6	0.8	1.6	48.2	1.6	0.8	1.6	48.2
58°	0.8	0.8	38.8	0.8	0.8	0.8	38.8	0.8	0.8	0.8	38.8
58.5°	0.8	0.8	30.2	0.8	0.8	0.8	30.2	0.8	0.8	0.8	30.2
59°	0.8	0.8	22.3	0.8	0.8	0.8	22.3	0.8	0.8	0.8	22.3
59.5°	0.8	0.8	16.4	0.8	0.8	0.8	16.4	0.8	0.8	0.8	16.4
60°	0.8	0.8	11.4	0.8	0.8	0.8	11.4	0.8	0.8	0.8	11.4
60.5°	0.8	0.8	7.8	0.8	0.8	0.8	7.8	0.8	0.8	0.8	7.8
61°	0.8	0.8	5.1	0.8	0.8	0.8	5.1	0.8	0.8	0.8	5.1
61.5°	0.8	0.8	3.1	0.8	0.8	0.8	3.1	0.8	0.8	0.8	3.1
62°	0.4	0.4	1.6	0.8	0.8	0.8	1.6	0.4	0.4	0.4	1.6
62.5°	0.4	0.4	1.2	0.4	0.4	0.4	1.2	0.4	0.4	0.4	1.2
63°	0.4	0.4	0.8	0.4	0.4	0.4	0.8	0.4	0.4	0.4	0.8
63.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
64°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
64.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
65.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
66°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4





TEST NUMBER: P776426

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
68°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
68.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
69°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
69.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
70.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.0	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.0
75°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776426  
CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

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



TEST NUMBER: P776426

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1943.8	1943.8	1943.8	1943.8	1943.8	1943.8
0.5°	1943.4	1943.8	1943.4	1943.8	1943.8	1944.5
1°	1943.4	1943.8	1943.4	1943.4	1943.8	1944.2
1.5°	1943.0	1943.0	1943.0	1943.0	1943.0	1943.8
2°	1942.2	1942.6	1942.2	1942.2	1942.6	1943.0
2.5°	1941.4	1941.8	1941.4	1941.4	1941.8	1942.2
3°	1940.6	1940.6	1940.6	1940.6	1940.6	1941.4
3.5°	1939.5	1939.5	1939.5	1939.5	1939.8	1940.2
4°	1937.9	1938.3	1937.9	1937.9	1938.3	1939.1
4.5°	1936.3	1936.7	1936.3	1936.7	1936.7	1937.5
5°	1934.8	1934.8	1934.8	1934.8	1935.1	1935.5
5.5°	1932.8	1932.8	1932.8	1932.8	1933.2	1933.6
6°	1930.4	1930.8	1930.4	1930.8	1931.2	1931.6
6.5°	1928.5	1928.5	1928.5	1928.5	1928.9	1929.3
7°	1925.7	1925.7	1925.7	1926.1	1926.5	1926.9
7.5°	1923.0	1923.0	1923.0	1923.4	1923.8	1924.2
8°	1920.3	1920.3	1920.3	1920.7	1920.7	1921.1
8.5°	1917.1	1916.7	1917.1	1917.5	1917.5	1917.9
9°	1913.6	1913.2	1913.6	1914.0	1914.4	1914.4
9.5°	1910.1	1909.7	1910.1	1910.5	1910.9	1910.9
10°	1906.2	1905.8	1906.2	1907.0	1907.0	1907.0
10.5°	1902.3	1901.9	1902.3	1903.0	1903.0	1903.0
11°	1897.9	1897.2	1897.9	1898.7	1898.7	1898.3
11.5°	1893.2	1892.5	1893.2	1894.4	1894.4	1894.0
12°	1888.5	1887.8	1888.5	1889.7	1889.7	1889.3
12.5°	1883.5	1882.7	1883.5	1885.0	1884.6	1884.2
13°	1878.4	1877.2	1878.4	1879.9	1879.5	1878.8
13.5°	1872.9	1871.7	1872.9	1874.5	1874.1	1873.3
14°	1867.0	1865.8	1867.0	1869.0	1868.2	1867.0
14.5°	1861.1	1859.6	1861.1	1863.1	1862.3	1861.1
15°	1854.9	1852.9	1854.9	1856.8	1856.0	1854.5
15.5°	1848.2	1846.3	1848.2	1850.6	1849.4	1848.2
16°	1841.6	1839.2	1841.6	1843.9	1842.7	1841.2
16.5°	1834.5	1832.2	1834.5	1836.9	1835.7	1834.1
17°	1827.1	1824.3	1827.1	1829.8	1828.6	1826.3
17.5°	1819.6	1816.5	1819.6	1822.4	1820.8	1818.9
18°	1811.4	1808.3	1811.4	1814.5	1813.0	1810.6
18.5°	1803.6	1800.1	1803.6	1806.7	1805.1	1802.4
19°	1794.6	1791.0	1794.6	1798.5	1796.5	1793.8
19.5°	1786.0	1782.4	1786.0	1789.9	1787.9	1784.8
20°	1777.0	1773.0	1777.0	1781.3	1778.9	1775.4
20.5°	1767.6	1763.2	1767.6	1772.3	1769.9	1766.0
21°	1758.2	1753.1	1758.2	1762.9	1760.1	1756.2

TEST NUMBER: P776426

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1727.2	1721.0	1727.2	1732.7	1729.6	1724.5
23°	1716.3	1709.6	1716.3	1722.1	1718.6	1713.5
23.5°	1704.9	1697.9	1704.9	1711.6	1707.6	1702.2
24°	1693.2	1686.1	1693.2	1700.2	1696.3	1690.0
24.5°	1681.4	1674.0	1681.4	1688.8	1684.1	1677.9
25°	1668.9	1661.0	1668.9	1676.7	1672.0	1665.4
25.5°	1656.3	1648.1	1656.3	1665.0	1659.5	1652.8
26°	1643.8	1634.8	1643.8	1652.4	1647.0	1639.9
26.5°	1630.5	1621.5	1630.5	1639.5	1633.6	1626.6
27°	1617.2	1607.8	1617.2	1626.6	1620.7	1612.5
27.5°	1603.1	1594.1	1603.1	1613.3	1607.0	1598.4
28°	1589.4	1579.2	1589.4	1599.6	1592.9	1584.3
28.5°	1575.3	1564.7	1575.3	1585.5	1578.8	1569.8
29°	1560.8	1549.8	1560.8	1571.0	1564.7	1554.9
29.5°	1546.3	1535.0	1546.3	1556.5	1549.8	1540.1
30°	1531.4	1519.7	1531.4	1541.2	1535.0	1524.4
30.5°	1516.6	1504.0	1516.6	1526.0	1520.1	1509.1
31°	1501.3	1488.0	1501.3	1510.3	1504.8	1493.1
31.5°	1485.6	1471.5	1485.6	1494.2	1489.5	1477.0
32°	1470.0	1450.8	1470.0	1478.2	1473.5	1460.6
32.5°	1453.9	1429.6	1453.9	1461.7	1457.4	1443.3
33°	1437.9	1406.5	1437.9	1444.9	1441.4	1415.5
33.5°	1421.4	1375.2	1421.4	1428.1	1425.3	1385.4
34°	1401.4	1340.3	1401.4	1410.8	1408.9	1348.6
34.5°	1379.5	1298.8	1379.5	1393.6	1391.3	1305.9
35°	1357.2	1253.8	1357.2	1376.4	1365.0	1262.0
35.5°	1329.0	1208.4	1329.0	1359.1	1339.2	1218.2
36°	1297.7	1163.4	1297.7	1341.5	1304.3	1172.8
36.5°	1259.7	1119.1	1259.7	1324.3	1267.5	1126.9
37°	1219.4	1073.7	1219.4	1307.1	1225.6	1080.3
37.5°	1176.7	1029.1	1176.7	1289.4	1183.7	1035.3
38°	1133.2	984.0	1133.2	1272.2	1140.6	988.3
38.5°	1090.5	938.6	1090.5	1254.6	1097.6	942.9
39°	1048.2	892.4	1048.2	1237.8	1053.7	897.5
39.5°	1005.9	846.6	1005.9	1220.5	1010.6	852.1
40°	963.3	800.8	963.3	1203.3	966.8	805.9
40.5°	920.2	756.1	920.2	1186.1	923.7	760.8
41°	877.5	711.9	877.5	1168.4	880.6	717.0
41.5°	834.0	669.6	834.0	1148.9	837.6	673.1
42°	791.0	626.9	791.0	1126.9	794.5	629.3
42.5°	748.3	584.6	748.3	1098.4	752.2	587.4
43°	706.4	543.5	706.4	1065.9	709.5	545.5
43.5°	665.3	502.4	665.3	1031.0	668.0	504.7



TEST NUMBER: P776426

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	545.5	387.7	545.5	895.5	547.0	387.3
45.5°	506.7	352.0	506.7	844.6	507.9	352.0
46°	468.3	317.6	468.3	794.1	469.5	317.6
46.5°	430.7	282.7	430.7	744.4	431.9	283.5
47°	395.1	249.0	395.1	694.6	395.1	250.2
47.5°	360.6	218.5	360.6	647.3	360.2	218.1
48°	326.6	189.9	326.6	601.5	326.6	189.9
48.5°	293.3	163.7	293.3	557.2	293.7	164.1
49°	260.8	139.0	260.8	514.1	261.2	142.5
49.5°	229.9	119.8	229.9	472.2	229.9	122.2
50°	201.3	101.4	201.3	431.5	201.3	102.6
50.5°	173.9	83.8	173.9	392.4	176.2	84.6
51°	148.8	69.3	148.8	357.1	152.3	69.3
51.5°	128.4	54.4	128.4	322.7	131.6	55.6
52°	108.9	41.9	108.9	289.0	111.2	44.2
52.5°	90.1	29.8	90.1	256.1	92.4	33.3
53°	74.0	18.4	74.0	225.5	75.6	22.3
53.5°	58.0	11.0	58.0	197.7	60.3	14.9
54°	45.0	6.3	45.0	171.9	48.6	7.0
54.5°	33.3	4.7	33.3	149.6	37.2	4.3
55°	21.9	3.5	21.9	128.4	25.8	2.7
55.5°	14.9	2.3	14.9	108.9	16.4	1.2
56°	11.0	1.2	11.0	90.8	7.0	0.8
56.5°	6.7	0.8	6.7	73.6	3.5	0.8
57°	3.5	0.8	3.5	59.9	2.0	0.8
57.5°	1.6	0.8	1.6	48.2	1.6	0.8
58°	0.8	0.8	0.8	38.8	0.8	0.8
58.5°	0.8	0.8	0.8	30.2	0.8	0.8
59°	0.8	0.8	0.8	22.3	0.8	0.8
59.5°	0.8	0.8	0.8	16.4	0.8	0.8
60°	0.8	0.8	0.8	11.4	0.8	0.8
60.5°	0.8	0.8	0.8	7.8	0.8	0.8
61°	0.8	0.8	0.8	5.1	0.8	0.8
61.5°	0.8	0.8	0.8	3.1	0.8	0.8
62°	0.8	0.8	0.8	1.6	0.4	0.4
62.5°	0.4	0.4	0.4	1.2	0.4	0.4
63°	0.4	0.4	0.4	0.8	0.4	0.4
63.5°	0.4	0.4	0.4	0.4	0.4	0.4
64°	0.4	0.4	0.4	0.4	0.4	0.4
64.5°	0.4	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4	0.4
65.5°	0.4	0.4	0.4	0.4	0.4	0.4
66°	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P776426

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.4	0.4	0.4	0.4	0.4	0.4
68°	0.4	0.4	0.4	0.4	0.4	0.4
68.5°	0.4	0.4	0.4	0.4	0.4	0.4
69°	0.4	0.4	0.4	0.4	0.4	0.4
69.5°	0.4	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4	0.4
70.5°	0.4	0.4	0.4	0.4	0.4	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.0	0.4	0.4
75°	0.4	0.4	0.4	0.0	0.0	0.0
75.5°	0.4	0.4	0.4	0.0	0.0	0.0
76°	0.0	0.4	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776426

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-3000K

**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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Scaled Data Report





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

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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	1746.0	1750.3	1753.1	1748.0	1742.5	1748.0	1753.1	1750.3	1746.0	1750.3	1753.1
22°	1735.4	1740.1	1742.9	1737.8	1731.9	1737.8	1742.9	1740.1	1735.4	1740.1	1742.9



44°	464.4	626.5	988.7	624.6	462.4	624.6	988.7	626.5	464.4	626.5	988.7
44.5°	425.6	586.6	942.9	585.0	424.1	585.0	942.9	586.6	425.6	586.6	942.9



66.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
67°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



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



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21.5°	1748.0	1742.5	1748.0	1753.1	1750.3	1746.0
22°	1737.8	1731.9	1737.8	1742.9	1740.1	1735.4



44°	624.6	462.4	624.6	988.7	626.5	464.4
44.5°	585.0	424.1	585.0	942.9	586.6	425.6

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66.5°	0.4	0.4	0.4	0.4	0.4	0.4
67°	0.4	0.4	0.4	0.4	0.4	0.4

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

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Scaled Data Report



(END OF REPORT)