

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: P775998

Luminaire Tested: HCDJBS1525CSD-HCD4TRMW-2500lm-4000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775998  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2310613A001)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL51525CSD-HCD4TRMW-2500lm-4000K  
Description: 4 INCH ROUND MEDIUM MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

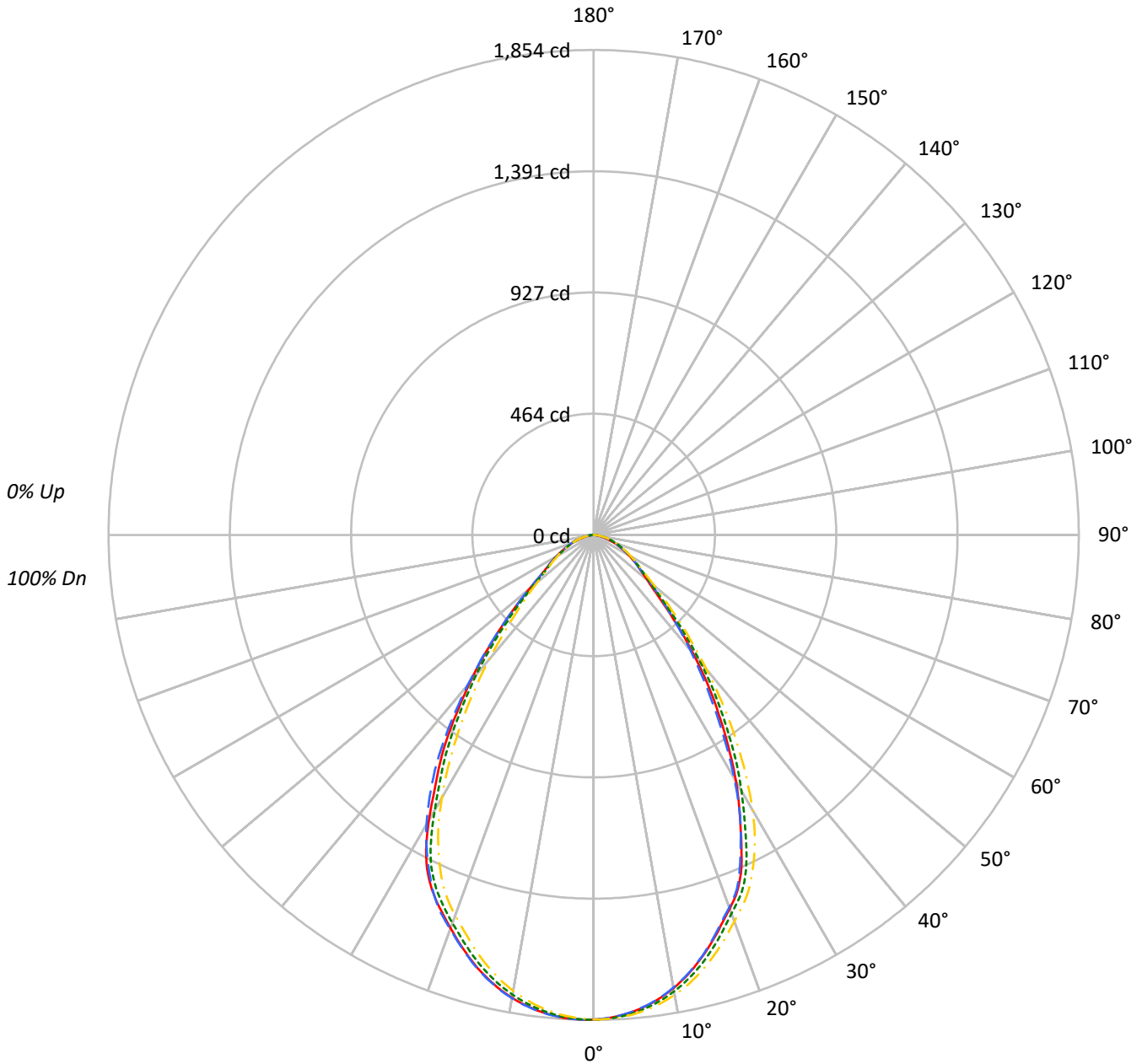
Lumens per Lamp: N/A  
Luminaire Lumens: 2584.3 lumens  
Efficiency: N/A  
Efficacy: 103.4 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.02  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 25  
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



TEST NUMBER: P775998  
CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-4000K

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	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	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72				
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65				
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				
6	80	69	62	56	78	68	61	56	66	60	56	65	60	55	64	59	55	53				
7	75	64	57	51	74	63	56	51	62	56	51	60	55	51	59	54	50	49				
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45				
9	67	55	48	44	65	55	48	43	54	48	43	53	47	43	52	47	43	41				
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38				

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

	0°	90°	180°	270°
0°	233162	233162	233162	233162
5°	230654	231513	232802	232094
10°	224810	226433	229615	228082
15°	215160	217700	223277	220919
20°	203689	206314	214216	211390
25°	185739	191807	204916	201208
30°	158092	164152	182927	176533
35°	127655	134491	153358	146905
40°	97109	104124	120750	114704
45°	68593	74573	88918	83312
50°	52314	55408	62515	58247
55°	44563	46472	48029	45791
60°	38963	41077	41732	39945
65°	33322	36270	35675	34841
70°	28259	32270	30394	30872
75°	22756	28786	25479	27181
80°	15872	25076	19568	23192
85°	5487	19782	8808	16894

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 202.5°  
 Vertical Angle: 45°  
 Luminance: 90146 cd/sqm



TEST NUMBER: P775998

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.3	6.7
10°-20°	472.0	18.3
20°-30°	640.0	24.8
30°-40°	568.4	22.0
40°-50°	348.0	13.5
50°-60°	193.0	7.5
60°-70°	118.4	4.6
70°-80°	58.5	2.3
80°-90°	12.7	0.5
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°	1285.3	49.7
0°-40°	1853.7	71.7
0°-60°	2394.6	92.7
0°-90°	2584.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2584.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1853	1853	1853	1853	1853	
5°	1826	1833	1843	1837	1826	172
15°	1651	1671	1714	1696	1651	463
25°	1338	1381	1476	1449	1338	608
35°	831	875	998	956	831	518
45°	385	419	500	468	385	307
55°	203	212	219	209	203	184
65°	112	122	120	117	112	112
75°	47	59	52	56	47	50
85°	4	14	6	12	4	7
90°	0	0	0	0	0	



TEST NUMBER: P775998

CATALOG NUMBER: HCDJBL5125CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1852.7	1852.7	1852.7	1852.7	1852.7	1852.7	1852.7	1852.7	1852.7	1852.7	1852.7
0.5°	1852.0	1852.2	1851.7	1850.7	1853.2	1852.5	1852.5	1853.0	1853.5	1854.0	1853.5
1°	1850.7	1850.9	1850.4	1849.4	1852.5	1852.2	1852.2	1853.2	1853.7	1854.3	1853.7
1.5°	1848.9	1848.9	1848.4	1847.6	1851.2	1851.5	1851.5	1853.0	1853.7	1854.3	1853.7
2°	1846.9	1846.6	1846.1	1845.6	1849.7	1850.2	1850.7	1852.0	1853.2	1854.0	1853.2
2.5°	1844.3	1844.1	1843.6	1843.1	1847.6	1848.7	1849.4	1851.2	1852.5	1853.2	1852.5
3°	1841.3	1841.3	1840.8	1840.3	1845.4	1846.6	1847.9	1849.9	1851.2	1852.0	1851.2
3.5°	1838.0	1838.0	1837.2	1837.2	1842.8	1844.3	1845.9	1848.2	1849.7	1850.4	1849.7
4°	1834.4	1834.2	1833.4	1833.7	1839.8	1841.8	1843.3	1846.1	1847.9	1848.7	1847.9
4.5°	1830.6	1830.1	1829.3	1829.8	1836.5	1838.5	1840.5	1843.6	1845.6	1846.6	1845.6
5°	1825.8	1825.5	1825.0	1825.5	1832.6	1835.2	1837.5	1840.8	1842.8	1844.1	1843.1
5.5°	1820.9	1820.4	1819.9	1820.7	1828.1	1831.1	1833.7	1837.7	1839.8	1841.0	1840.3
6°	1815.9	1815.1	1814.6	1815.4	1823.5	1827.0	1830.1	1834.2	1836.5	1837.7	1837.2
6.5°	1810.0	1809.3	1809.3	1810.0	1818.4	1822.2	1825.8	1830.1	1832.9	1834.2	1833.7
7°	1804.2	1803.4	1803.1	1804.2	1813.1	1817.1	1821.2	1825.8	1829.1	1830.4	1829.6
7.5°	1797.6	1796.5	1796.3	1797.8	1807.2	1811.8	1816.1	1821.2	1824.5	1826.0	1825.3
8°	1790.9	1789.9	1789.4	1790.9	1800.6	1805.9	1810.8	1816.1	1819.4	1821.2	1820.4
8.5°	1783.6	1782.6	1782.0	1783.6	1794.3	1799.8	1804.9	1810.8	1814.3	1815.9	1815.6
9°	1775.9	1774.7	1774.2	1776.2	1787.1	1793.2	1798.8	1804.7	1809.0	1810.8	1810.3
9.5°	1767.6	1766.0	1765.8	1768.1	1779.5	1786.4	1792.2	1798.8	1803.1	1804.9	1804.4
10°	1759.2	1757.4	1757.1	1759.4	1771.9	1779.0	1785.4	1792.2	1796.8	1799.1	1798.3
10.5°	1750.3	1748.5	1748.2	1750.5	1763.7	1771.4	1778.0	1785.4	1789.9	1792.5	1792.0
11°	1740.9	1739.1	1738.6	1741.4	1754.6	1763.0	1770.1	1778.2	1783.1	1785.6	1785.1
11.5°	1730.9	1728.7	1728.7	1731.7	1745.9	1754.3	1762.2	1770.1	1775.9	1778.2	1778.0
12°	1720.8	1718.7	1718.5	1721.5	1736.5	1745.4	1753.6	1762.2	1768.3	1770.9	1770.1
12.5°	1710.1	1707.8	1707.8	1710.6	1726.1	1735.8	1744.4	1753.8	1759.9	1762.7	1762.0
13°	1699.2	1696.9	1696.4	1699.9	1715.9	1726.1	1735.3	1745.2	1751.5	1754.6	1753.8
13.5°	1687.2	1684.7	1685.2	1688.5	1705.5	1715.7	1725.6	1736.0	1742.6	1745.7	1745.2
14°	1676.0	1673.2	1673.0	1676.5	1694.3	1705.0	1715.2	1726.1	1733.5	1736.5	1735.5
14.5°	1663.8	1661.0	1660.8	1664.8	1682.6	1694.1	1705.0	1716.2	1724.1	1726.9	1725.9
15°	1651.4	1648.1	1647.8	1652.1	1670.9	1682.6	1694.3	1705.8	1713.7	1717.0	1715.9
15.5°	1638.4	1635.3	1635.3	1639.4	1658.5	1670.9	1682.9	1695.3	1703.2	1706.8	1706.0
16°	1625.2	1622.1	1621.9	1626.2	1646.0	1659.0	1671.4	1684.7	1692.8	1696.4	1695.3
16.5°	1612.0	1608.4	1608.4	1613.2	1633.3	1646.5	1659.8	1673.2	1681.9	1685.4	1684.4
17°	1598.7	1594.7	1594.9	1599.7	1620.1	1633.8	1647.8	1661.8	1670.4	1674.2	1673.5
17.5°	1585.3	1580.9	1580.9	1586.0	1606.6	1621.1	1635.3	1649.8	1659.0	1663.1	1661.8
18°	1571.0	1566.9	1566.7	1572.0	1593.4	1607.9	1622.9	1637.6	1647.3	1651.4	1650.3
18.5°	1557.8	1553.2	1552.7	1558.3	1579.7	1594.4	1609.9	1625.4	1635.3	1639.4	1638.4
19°	1545.1	1540.3	1539.5	1544.8	1565.9	1581.4	1597.0	1613.0	1623.4	1627.7	1626.4
19.5°	1532.9	1527.8	1527.0	1532.4	1553.0	1568.5	1584.0	1600.8	1610.9	1615.8	1614.7
20°	1520.9	1515.6	1515.1	1520.2	1540.5	1556.3	1572.3	1588.6	1599.5	1604.1	1603.6
20.5°	1508.2	1502.9	1502.4	1507.7	1528.3	1544.1	1560.1	1576.6	1587.5	1592.9	1592.4
21°	1495.5	1490.2	1489.9	1495.5	1516.1	1532.6	1548.4	1564.7	1576.1	1582.0	1581.4



TEST NUMBER: P775998

CATALOG NUMBER: HCDJBL1525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1449.7	1442.1	1441.6	1450.2	1477.7	1495.0	1511.8	1529.1	1540.8	1546.9	1546.1
23°	1430.9	1423.0	1421.3	1431.7	1462.5	1480.3	1497.5	1516.6	1528.8	1534.4	1532.4
23.5°	1410.8	1402.7	1399.4	1412.1	1444.9	1464.0	1482.8	1503.6	1516.4	1520.7	1518.1
24°	1388.2	1380.3	1376.0	1390.8	1425.3	1446.7	1466.8	1489.7	1503.4	1506.4	1502.6
24.5°	1363.8	1357.4	1352.6	1368.1	1404.5	1428.1	1449.7	1475.2	1489.7	1491.2	1486.6
25°	1337.6	1333.3	1328.7	1344.5	1381.3	1408.3	1431.9	1459.4	1475.7	1475.2	1469.6
25.5°	1311.9	1307.9	1305.6	1319.8	1357.2	1386.2	1413.1	1443.1	1460.7	1458.1	1451.5
26°	1286.0	1281.9	1282.7	1294.4	1332.0	1363.3	1394.1	1425.6	1444.1	1440.6	1433.5
26.5°	1260.1	1254.5	1259.6	1268.5	1305.1	1339.4	1373.7	1406.5	1426.3	1421.5	1414.9
27°	1234.4	1227.8	1235.7	1242.5	1278.6	1314.7	1353.9	1386.9	1407.5	1402.4	1396.9
27.5°	1210.0	1200.8	1211.3	1215.6	1253.2	1289.8	1333.3	1366.6	1386.9	1382.6	1378.5
28°	1185.8	1173.4	1185.1	1189.1	1227.8	1264.1	1311.7	1345.0	1364.6	1363.3	1359.2
28.5°	1161.9	1147.4	1158.1	1163.2	1203.1	1240.0	1289.1	1323.1	1339.9	1342.7	1340.2
29°	1137.0	1121.5	1130.4	1137.0	1178.7	1216.3	1264.6	1299.7	1314.0	1321.6	1320.6
29.5°	1112.9	1095.8	1102.7	1110.8	1154.3	1192.9	1239.7	1275.3	1287.0	1299.7	1299.7
30°	1087.9	1069.9	1074.5	1084.6	1129.6	1169.6	1213.8	1249.9	1258.8	1277.4	1278.4
30.5°	1062.8	1044.7	1045.7	1058.2	1105.5	1146.4	1187.6	1222.2	1230.1	1252.9	1255.2
31°	1036.6	1018.5	1017.8	1031.8	1081.1	1122.5	1160.4	1194.0	1201.6	1228.8	1232.1
31.5°	1010.6	992.6	990.1	1005.8	1055.7	1098.4	1132.9	1164.5	1174.1	1203.6	1207.4
32°	983.2	967.2	962.1	979.9	1030.7	1074.0	1106.5	1134.7	1148.2	1177.7	1183.3
32.5°	956.7	941.0	934.1	953.7	1005.6	1049.0	1080.1	1105.2	1122.8	1150.2	1159.1
33°	930.8	915.0	907.2	928.3	978.9	1022.9	1052.1	1075.5	1097.6	1122.3	1135.0
33.5°	905.1	890.4	880.2	903.1	952.4	996.7	1024.1	1047.0	1072.7	1094.6	1109.3
34°	880.2	864.5	853.5	877.7	926.2	969.7	996.2	1020.6	1048.5	1067.3	1084.6
34.5°	855.3	839.0	827.3	852.2	900.8	942.0	968.7	992.9	1023.4	1039.9	1057.4
35°	830.9	813.1	800.9	827.1	875.4	914.3	941.0	964.9	998.2	1013.7	1030.5
35.5°	807.0	788.9	776.0	801.9	851.2	887.8	913.8	938.2	971.7	988.0	1002.3
36°	783.3	763.3	752.1	776.5	826.1	860.6	885.6	911.2	944.3	962.3	974.5
36.5°	759.2	738.3	728.7	750.5	802.4	834.5	858.9	884.3	917.1	936.4	945.8
37°	734.8	714.4	705.8	725.6	778.3	808.0	830.6	856.8	889.4	910.2	917.1
37.5°	710.4	690.5	682.9	700.7	754.4	782.6	803.4	829.6	861.9	885.0	888.9
38°	686.0	667.2	660.3	676.3	730.7	757.2	775.7	802.9	835.7	858.4	860.4
38.5°	661.6	643.5	637.7	653.7	706.8	732.2	749.3	776.7	811.1	832.2	831.4
39°	638.2	621.6	616.1	631.3	680.9	707.3	722.8	750.5	784.9	805.5	803.4
39.5°	614.3	599.8	594.7	609.4	657.2	682.4	698.2	725.9	760.2	779.0	775.5
40°	591.1	578.2	573.1	587.6	633.8	657.5	672.0	701.2	735.0	752.3	748.0
40.5°	568.8	557.1	553.0	566.7	609.4	631.6	647.1	677.6	712.4	726.1	720.5
41°	547.1	536.5	533.7	546.1	586.3	606.9	622.4	653.9	687.5	700.5	694.6
41.5°	525.3	516.1	514.6	526.3	563.9	582.7	599.3	631.3	662.1	675.0	669.2
42°	503.7	496.8	497.1	506.7	542.6	559.1	576.1	609.4	637.2	649.9	644.3
42.5°	483.1	478.2	479.5	487.7	520.7	535.7	554.3	587.6	614.0	625.5	620.1
43°	462.5	460.2	462.5	469.3	499.6	513.6	532.9	565.7	589.4	600.5	595.7
43.5°	442.1	442.4	445.4	451.6	478.5	492.2	512.8	544.9	565.7	576.4	572.1



TEST NUMBER: P775998

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	385.4	393.8	398.9	402.5	419.0	433.5	453.6	482.6	499.6	506.5	504.4
45.5°	369.2	378.8	384.4	387.5	400.7	415.4	436.0	462.7	479.3	484.3	482.8
46°	353.9	364.6	371.0	373.2	383.2	397.6	418.5	443.4	458.9	462.7	462.0
46.5°	339.4	350.9	357.2	359.3	366.6	381.6	401.5	424.9	439.6	441.6	441.9
47°	326.2	337.6	344.8	345.8	351.6	365.6	385.4	407.1	420.5	420.8	422.3
47.5°	314.3	324.9	332.3	333.1	337.6	350.6	370.2	389.5	402.0	401.7	404.0
48°	303.6	313.5	320.4	321.1	324.4	336.9	356.0	373.2	384.4	383.4	385.7
48.5°	293.4	302.3	308.9	309.7	312.5	323.9	342.2	357.7	367.1	366.1	368.4
49°	284.3	291.9	298.7	298.7	301.8	312.2	328.7	342.7	350.4	349.3	351.6
49.5°	275.4	282.0	288.3	288.3	291.9	300.8	316.5	328.7	334.6	333.8	336.1
50°	267.2	272.6	278.4	278.4	283.0	290.4	304.6	315.3	319.3	319.1	320.9
50.5°	259.6	263.7	268.5	269.3	274.1	280.7	293.4	302.6	305.6	305.6	306.6
51°	252.2	255.5	259.8	260.4	265.7	271.8	282.7	290.6	292.6	292.9	293.4
51.5°	244.8	247.4	251.2	252.2	258.1	263.4	272.6	279.4	280.7	281.2	280.7
52°	238.0	239.8	243.1	244.1	250.9	255.3	263.1	269.0	269.5	270.0	269.0
52.5°	231.1	232.4	235.2	236.7	243.6	247.6	254.0	258.8	259.3	259.6	258.1
53°	224.5	225.8	227.8	229.3	236.5	240.3	245.6	249.4	250.2	249.9	247.9
53.5°	218.4	219.4	220.9	222.5	229.6	233.1	237.5	241.0	241.3	241.0	239.0
54°	212.8	213.6	214.6	216.1	223.2	226.8	229.8	232.9	233.1	232.6	230.9
54.5°	208.0	208.5	209.2	210.8	216.9	219.9	222.7	225.3	225.8	224.8	223.2
55°	203.1	203.7	204.4	205.7	211.8	214.8	217.1	218.4	218.9	218.1	217.6
55.5°	198.3	198.8	199.6	200.9	206.7	209.5	211.8	213.1	213.6	212.8	212.0
56°	193.5	194.0	194.8	195.8	201.6	204.4	206.5	207.7	208.0	207.2	206.5
56.5°	188.4	189.2	189.9	191.2	196.5	199.1	200.9	202.4	202.4	201.9	201.1
57°	183.6	184.3	185.1	186.1	192.0	194.0	195.5	196.8	196.8	196.3	195.5
57.5°	178.7	179.5	180.0	181.3	186.9	188.9	190.4	191.7	192.2	191.2	190.2
58°	173.9	174.7	175.2	176.5	182.0	184.1	185.3	186.6	186.9	186.1	184.8
58.5°	169.1	169.8	170.6	171.9	177.2	179.0	180.3	181.8	181.5	181.0	179.8
59°	164.5	165.3	166.0	167.3	172.4	174.2	175.4	176.7	176.2	175.7	174.7
59.5°	159.7	160.7	161.4	162.5	167.8	169.3	170.3	171.6	171.1	170.6	169.6
60°	154.8	156.4	156.9	158.1	163.2	165.0	165.8	166.8	165.8	165.8	164.8
60.5°	150.3	151.8	152.6	153.6	158.9	160.2	161.2	162.0	160.7	160.7	159.9
61°	145.7	147.2	148.2	149.2	154.3	155.9	156.6	157.4	155.9	155.9	155.3
61.5°	141.4	142.9	144.2	145.2	150.0	151.5	152.0	152.8	151.0	151.0	150.8
62°	136.8	138.6	140.1	140.9	145.7	147.2	147.7	148.5	146.2	146.4	146.4
62.5°	132.5	134.5	135.8	136.8	141.4	142.9	143.7	143.9	141.6	141.9	142.1
63°	128.1	130.2	132.0	133.0	137.3	138.8	139.3	139.6	137.0	137.3	137.8
63.5°	124.1	126.1	127.9	128.9	133.2	134.8	135.3	135.0	132.5	133.0	133.7
64°	120.0	122.0	124.3	125.1	129.4	130.7	131.2	130.7	128.1	128.7	129.7
64.5°	115.9	118.2	120.5	121.5	125.6	126.9	127.4	126.6	123.8	124.6	125.9
65°	111.9	114.2	117.0	117.7	121.8	123.1	123.6	122.5	119.8	120.5	121.8
65.5°	108.1	110.3	113.1	114.2	118.2	119.2	120.0	118.5	115.4	116.4	118.0
66°	104.2	106.8	109.6	110.6	114.4	115.7	116.2	114.7	111.6	112.6	114.4





TEST NUMBER: P775998

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	93.3	95.9	99.2	100.4	104.0	105.0	105.5	103.2	100.2	101.2	103.5
68°	90.0	92.3	95.9	97.1	100.7	101.7	102.2	99.7	96.6	97.6	99.9
68.5°	86.7	89.2	92.8	93.8	97.4	98.4	98.6	96.1	92.8	94.1	96.6
69°	83.4	85.9	89.5	90.8	94.1	95.1	95.3	92.5	89.5	90.8	93.3
69.5°	80.1	82.6	86.4	87.7	91.0	92.0	92.0	89.2	85.9	87.5	90.0
70°	76.8	79.3	83.4	84.9	87.7	88.7	89.0	85.9	82.6	84.2	86.7
70.5°	73.5	76.0	80.3	81.9	84.9	85.7	85.9	82.6	79.3	80.9	83.6
71°	70.4	73.0	77.3	78.8	81.9	82.6	82.6	79.3	76.3	77.5	80.6
71.5°	67.4	69.9	74.2	76.0	78.8	79.8	79.6	76.0	73.0	74.5	77.5
72°	64.1	66.9	71.2	73.0	75.8	76.8	76.5	73.0	69.9	71.4	74.5
72.5°	61.0	63.8	68.4	70.2	73.0	74.0	73.7	69.9	66.9	68.4	71.7
73°	58.0	60.8	65.3	67.4	70.2	70.9	70.7	66.9	63.8	65.3	68.6
73.5°	55.2	57.7	62.5	64.6	67.4	68.1	67.6	63.8	60.8	62.3	65.9
74°	52.4	54.9	59.7	62.0	64.6	65.6	65.1	61.0	58.0	59.5	63.1
74.5°	49.6	52.1	57.0	59.2	61.8	62.8	62.0	58.2	55.2	56.7	60.3
75°	46.8	49.3	54.2	56.7	59.2	60.0	59.5	55.2	52.4	53.9	57.5
75.5°	44.0	46.5	51.6	53.9	56.7	57.5	56.7	52.6	49.6	51.1	54.9
76°	41.4	44.0	48.8	51.6	53.9	54.9	53.9	49.6	46.8	48.3	52.4
76.5°	38.9	41.2	46.3	48.8	51.4	52.4	51.4	47.0	44.2	45.8	49.6
77°	36.4	38.6	43.7	46.5	48.8	49.8	48.8	44.2	41.4	43.0	47.0
77.5°	33.8	36.1	41.2	44.0	46.5	47.5	46.3	41.7	38.9	40.4	44.5
78°	31.3	33.6	38.9	41.7	44.0	45.0	43.7	39.2	36.4	38.1	42.0
78.5°	28.7	31.0	36.4	39.2	41.7	42.5	41.2	36.6	34.1	35.6	39.7
79°	26.4	28.5	34.1	36.9	39.2	40.2	38.9	34.1	31.5	33.1	37.4
79.5°	24.2	26.2	31.5	34.6	36.9	37.9	36.6	31.8	29.2	30.5	34.8
80°	21.9	23.9	29.2	32.3	34.6	35.6	34.1	29.2	27.0	28.2	32.5
80.5°	19.6	21.6	27.2	30.3	32.5	33.3	32.0	27.0	24.7	25.9	30.3
81°	17.3	19.3	24.9	28.0	30.3	31.0	29.7	24.7	22.4	23.9	28.2
81.5°	15.3	17.0	22.9	25.7	28.0	29.0	27.5	22.6	20.3	21.6	25.9
82°	13.0	15.0	20.8	23.6	25.9	26.7	25.4	20.6	18.1	19.3	23.9
82.5°	10.9	13.0	18.8	21.6	23.6	24.7	23.4	18.6	16.0	17.3	22.1
83°	8.9	11.2	17.0	19.6	21.9	22.6	21.6	16.5	13.7	15.0	20.3
83.5°	7.6	9.4	15.0	17.5	19.8	20.6	19.6	14.2	11.7	13.2	18.3
84°	6.4	8.4	13.5	15.8	17.8	18.6	17.5	12.5	9.7	11.4	16.5
84.5°	5.1	7.4	11.7	13.7	15.8	16.5	15.8	10.9	7.9	9.7	14.7
85°	3.8	6.1	9.9	11.7	13.7	14.5	13.7	9.4	6.1	8.4	13.0
85.5°	3.1	5.1	8.4	9.9	11.7	12.7	12.2	8.1	5.1	7.4	11.2
86°	2.3	4.1	6.9	8.1	9.9	10.9	10.4	7.1	4.3	6.4	9.7
86.5°	1.8	3.1	5.3	6.4	8.1	8.9	8.9	5.8	3.6	5.3	8.1
87°	1.0	2.0	3.6	4.6	6.4	7.1	7.1	4.8	2.8	4.3	6.6
87.5°	0.5	1.3	2.0	2.8	4.6	5.6	5.6	3.8	2.3	3.3	5.1
88°	0.3	0.5	0.8	1.3	3.1	3.8	4.1	2.8	1.5	2.5	3.6
88.5°	0.0	0.3	0.3	0.5	1.5	2.0	2.5	1.8	1.0	1.5	2.0



TEST NUMBER: P775998  
CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

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



TEST NUMBER: P775998

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1852.7	1852.7	1852.7	1852.7	1852.7	1852.7
0.5°	1852.2	1853.5	1852.5	1851.5	1851.7	1852.0
1°	1852.5	1853.2	1851.7	1850.4	1850.4	1850.7
1.5°	1852.0	1852.5	1850.7	1849.2	1848.9	1848.9
2°	1851.5	1851.5	1849.4	1847.4	1846.9	1846.9
2.5°	1850.4	1849.9	1847.9	1845.6	1844.6	1844.3
3°	1849.2	1848.2	1845.6	1843.3	1841.8	1841.3
3.5°	1847.6	1846.1	1843.3	1840.5	1838.7	1838.0
4°	1845.6	1843.8	1840.3	1837.7	1835.4	1834.4
4.5°	1843.3	1840.5	1837.2	1833.9	1831.6	1830.6
5°	1840.8	1837.2	1833.4	1830.1	1827.3	1825.8
5.5°	1837.5	1833.7	1829.6	1825.8	1822.7	1820.9
6°	1833.9	1829.8	1825.0	1821.2	1817.9	1815.9
6.5°	1830.4	1825.8	1820.4	1816.4	1812.3	1810.0
7°	1826.3	1820.9	1815.4	1810.8	1806.5	1804.2
7.5°	1822.0	1815.6	1810.0	1804.9	1800.4	1797.6
8°	1816.9	1810.5	1804.2	1798.6	1793.7	1790.9
8.5°	1811.8	1804.7	1798.1	1792.2	1786.9	1783.6
9°	1806.2	1798.3	1791.5	1784.8	1779.0	1775.9
9.5°	1800.4	1792.0	1784.6	1777.7	1771.4	1767.6
10°	1794.0	1784.8	1777.2	1770.1	1763.2	1759.2
10.5°	1787.4	1777.7	1769.3	1762.0	1754.8	1750.3
11°	1780.0	1770.1	1761.2	1753.3	1745.7	1740.9
11.5°	1772.6	1762.2	1752.8	1744.4	1735.8	1730.9
12°	1764.8	1753.6	1743.9	1734.5	1726.1	1720.8
12.5°	1756.6	1744.7	1734.5	1724.6	1715.7	1710.1
13°	1748.0	1735.5	1725.1	1714.7	1705.3	1699.2
13.5°	1739.1	1726.4	1714.9	1704.2	1693.8	1687.2
14°	1729.7	1716.4	1704.8	1693.3	1682.1	1676.0
14.5°	1720.0	1706.3	1694.1	1682.1	1670.4	1663.8
15°	1709.8	1695.6	1682.9	1670.2	1658.2	1651.4
15.5°	1699.4	1684.4	1671.4	1658.5	1646.0	1638.4
16°	1688.7	1673.5	1659.8	1646.3	1633.6	1625.2
16.5°	1677.8	1662.0	1647.8	1634.1	1620.3	1612.0
17°	1666.4	1649.8	1635.6	1621.6	1607.4	1598.7
17.5°	1654.9	1638.4	1623.1	1608.4	1593.9	1585.3
18°	1643.2	1626.2	1610.9	1595.7	1580.7	1571.0
18.5°	1631.3	1613.7	1598.5	1583.0	1567.7	1557.8
19°	1618.8	1602.3	1586.3	1570.8	1555.5	1545.1
19.5°	1607.4	1590.1	1574.3	1559.1	1543.6	1532.9
20°	1596.2	1578.4	1563.1	1547.1	1531.6	1520.9
20.5°	1585.0	1567.2	1550.9	1535.2	1519.2	1508.2
21°	1573.6	1555.3	1539.2	1523.0	1506.7	1495.5

TEST NUMBER: P775998

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1538.5	1519.2	1501.4	1480.8	1461.9	1449.7
23°	1525.5	1506.7	1488.1	1465.2	1444.9	1430.9
23.5°	1511.8	1493.2	1473.6	1448.2	1425.8	1410.8
24°	1496.8	1480.0	1458.1	1430.4	1405.5	1388.2
24.5°	1481.3	1464.5	1441.9	1411.3	1383.9	1363.8
25°	1464.7	1449.0	1424.3	1392.0	1361.5	1337.6
25.5°	1447.5	1431.9	1406.0	1372.2	1337.9	1311.9
26°	1429.4	1414.4	1386.7	1352.4	1313.5	1286.0
26.5°	1409.8	1393.8	1365.8	1331.3	1288.3	1260.1
27°	1390.8	1373.0	1344.2	1309.4	1263.6	1234.4
27.5°	1371.4	1349.3	1321.9	1287.0	1238.7	1210.0
28°	1351.3	1324.4	1298.5	1263.4	1214.6	1185.8
28.5°	1330.8	1298.0	1273.8	1238.7	1190.7	1161.9
29°	1309.4	1271.3	1248.1	1213.0	1167.0	1137.0
29.5°	1288.0	1243.0	1221.4	1186.8	1143.6	1112.9
30°	1264.9	1214.8	1193.7	1160.1	1120.2	1087.9
30.5°	1241.0	1187.4	1164.7	1133.5	1096.1	1062.8
31°	1216.1	1160.4	1134.5	1106.5	1070.9	1036.6
31.5°	1190.4	1134.5	1105.5	1078.5	1046.0	1010.6
32°	1164.2	1109.0	1076.8	1051.1	1020.8	983.2
32.5°	1137.0	1084.1	1048.5	1023.4	994.9	956.7
33°	1109.3	1059.5	1021.6	995.9	966.9	930.8
33.5°	1081.3	1034.8	994.1	967.9	940.0	905.1
34°	1054.1	1009.9	967.9	940.5	911.7	880.2
34.5°	1027.2	982.9	941.2	912.3	884.0	855.3
35°	1000.7	956.2	914.5	884.5	855.8	830.9
35.5°	974.8	929.3	887.6	857.3	829.6	807.0
36°	948.9	902.1	860.4	830.6	802.9	783.3
36.5°	922.9	875.4	833.4	803.9	777.2	759.2
37°	897.3	847.9	806.5	776.5	751.8	734.8
37.5°	870.6	821.7	780.0	750.0	727.7	710.4
38°	844.1	796.3	753.9	723.6	702.2	686.0
38.5°	817.9	771.7	728.2	697.9	677.6	661.6
39°	792.0	747.2	704.0	672.0	652.4	638.2
39.5°	765.0	722.6	679.9	646.8	627.0	614.3
40°	738.9	698.2	656.5	621.9	602.1	591.1
40.5°	712.4	673.8	633.6	597.7	577.7	568.8
41°	688.0	648.8	610.7	574.1	553.5	547.1
41.5°	662.1	624.9	588.6	552.0	530.4	525.3
42°	637.4	600.5	566.2	529.9	508.5	503.7
42.5°	612.5	576.9	545.9	509.5	487.7	483.1
43°	589.1	553.5	524.0	489.2	467.3	462.5
43.5°	564.4	531.4	503.2	469.3	447.7	442.1



TEST NUMBER: P775998

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	496.6	468.1	442.9	414.9	394.1	385.4
45.5°	474.2	448.2	424.3	398.4	378.1	369.2
46°	453.3	429.2	406.5	382.9	362.6	353.9
46.5°	432.5	410.1	389.0	367.6	348.1	339.4
47°	412.6	392.1	372.2	352.6	334.3	326.2
47.5°	393.8	374.3	356.7	338.9	321.6	314.3
48°	375.5	357.5	341.2	326.2	309.9	303.6
48.5°	359.0	341.0	327.0	314.0	298.7	293.4
49°	342.2	325.7	313.7	302.3	288.6	284.3
49.5°	327.2	311.2	301.0	291.1	279.2	275.4
50°	313.0	297.5	288.8	280.4	270.3	267.2
50.5°	299.5	284.5	277.4	270.5	261.9	259.6
51°	286.8	273.1	267.0	261.1	253.7	252.2
51.5°	275.4	262.4	257.0	252.5	246.1	244.8
52°	264.4	252.5	248.1	243.8	239.0	238.0
52.5°	254.3	243.6	239.5	235.9	231.9	231.1
53°	244.8	235.2	231.4	228.3	225.3	224.5
53.5°	235.9	227.6	223.7	221.5	218.9	218.4
54°	227.8	220.4	217.1	215.1	213.3	212.8
54.5°	220.7	214.3	211.5	209.8	208.2	208.0
55°	215.4	208.7	206.5	204.9	203.4	203.1
55.5°	209.8	203.9	201.4	199.8	198.3	198.3
56°	204.4	198.8	196.3	195.0	193.5	193.5
56.5°	199.1	193.7	191.5	189.9	188.4	188.4
57°	193.5	188.4	186.4	184.8	183.6	183.6
57.5°	188.4	183.1	181.0	179.8	178.7	178.7
58°	183.3	178.2	176.2	174.9	173.9	173.9
58.5°	178.2	173.1	171.1	170.1	169.1	169.1
59°	172.9	168.3	166.3	165.3	164.5	164.5
59.5°	168.1	163.2	161.4	160.7	159.9	159.7
60°	163.2	158.7	156.9	156.1	155.3	154.8
60.5°	158.4	153.8	152.3	151.8	151.0	150.3
61°	153.8	149.5	148.0	147.2	146.7	145.7
61.5°	149.2	145.2	143.7	142.9	142.1	141.4
62°	144.9	140.9	139.6	138.8	138.1	136.8
62.5°	140.6	136.5	135.0	134.8	133.7	132.5
63°	136.3	132.5	131.2	130.7	129.7	128.1
63.5°	132.5	128.4	127.1	126.9	125.6	124.1
64°	128.4	124.6	123.3	123.1	121.5	120.0
64.5°	124.3	120.8	119.5	119.2	117.7	115.9
65°	120.5	117.0	115.9	115.7	113.9	111.9
65.5°	116.7	113.4	112.4	111.9	110.1	108.1
66°	113.1	109.8	108.8	108.6	106.3	104.2



TEST NUMBER: P775998

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	102.7	99.4	98.6	98.1	95.3	93.3
68°	99.2	96.1	95.3	95.1	91.5	90.0
68.5°	96.1	93.1	91.8	91.5	88.5	86.7
69°	92.8	90.0	89.0	88.5	85.4	83.4
69.5°	89.5	87.0	85.9	85.4	82.1	80.1
70°	86.4	83.9	83.1	82.6	79.1	76.8
70.5°	83.4	81.1	80.1	79.6	75.8	73.5
71°	80.6	78.1	77.0	76.5	72.7	70.4
71.5°	77.5	75.0	74.2	73.5	69.7	67.4
72°	74.7	72.2	71.4	70.7	66.6	64.1
72.5°	71.7	69.4	68.6	67.6	63.6	61.0
73°	68.9	66.6	65.9	64.8	60.8	58.0
73.5°	66.1	63.8	63.1	62.0	57.7	55.2
74°	63.6	61.3	60.5	59.2	54.9	52.4
74.5°	60.8	58.5	57.7	56.7	52.1	49.6
75°	58.2	55.9	55.2	53.9	49.3	46.8
75.5°	55.7	53.4	52.6	51.4	46.8	44.0
76°	53.1	50.9	50.1	48.6	44.0	41.4
76.5°	50.6	48.3	47.5	46.0	41.2	38.9
77°	48.1	46.0	45.3	43.5	38.6	36.4
77.5°	45.8	43.5	42.7	41.2	36.1	33.8
78°	43.2	41.2	40.4	38.6	33.6	31.3
78.5°	40.9	38.9	38.1	36.4	31.3	28.7
79°	38.6	36.6	35.8	33.8	28.7	26.4
79.5°	36.4	34.3	33.6	31.5	26.4	24.2
80°	34.1	32.0	31.3	29.5	24.2	21.9
80.5°	31.8	30.0	29.2	27.2	21.9	19.6
81°	29.7	27.7	27.0	24.9	19.6	17.3
81.5°	27.5	25.7	24.9	22.9	17.5	15.3
82°	25.4	23.6	22.9	20.8	15.5	13.0
82.5°	23.4	21.6	20.8	19.1	13.5	10.9
83°	21.6	19.6	18.8	17.0	11.7	8.9
83.5°	19.6	17.5	16.8	15.3	10.2	7.6
84°	17.5	15.5	14.7	13.5	8.9	6.4
84.5°	15.5	13.7	13.0	11.7	7.9	5.1
85°	13.7	11.7	11.2	9.9	6.6	3.8
85.5°	11.7	9.9	9.2	8.4	5.3	3.1
86°	9.9	8.4	7.6	6.6	4.3	2.3
86.5°	8.1	6.6	5.8	5.1	3.3	1.8
87°	6.6	4.8	4.1	3.3	2.3	1.0
87.5°	4.8	3.1	2.3	1.8	1.3	0.5
88°	3.1	1.5	1.0	0.8	0.5	0.3
88.5°	1.5	0.5	0.3	0.3	0.3	0.0



TEST NUMBER: P775998  
CATALOG NUMBER: HCDJBL1525CSD-HCD4TRMW-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



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Scaled Data Report





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

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Scaled Data Report



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21.5°	1482.3	1475.4	1475.9	1482.0	1504.1	1520.4	1536.7	1553.0	1564.2	1570.3	1570.0
22°	1467.0	1459.4	1459.9	1466.8	1491.7	1508.5	1525.3	1541.0	1552.7	1559.1	1558.6



44°	422.3	425.6	429.7	434.8	457.9	472.1	492.2	523.5	542.8	552.7	548.9
44.5°	403.8	409.3	413.4	418.5	438.3	452.6	472.1	503.2	521.5	529.1	526.3



66.5°	100.7	103.0	106.3	107.0	110.9	112.1	112.4	110.6	107.5	108.6	110.6
67°	96.9	99.4	102.7	103.7	107.5	108.6	109.1	107.0	104.0	105.0	107.0



89°	0.0	0.3	0.0	0.0	0.5	0.8	1.0	1.0	0.5	0.8	0.8
89.5°	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.3	0.3



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21.5°	1561.9	1543.1	1527.0	1510.0	1493.0	1482.3
22°	1550.7	1531.6	1514.6	1495.8	1478.2	1467.0



44°	541.6	509.3	482.8	450.5	428.9	422.3
44.5°	518.4	488.4	463.0	432.2	411.1	403.8

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66.5°	109.6	106.3	105.3	105.0	102.5	100.7
67°	106.0	102.7	102.0	101.7	98.9	96.9

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

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Scaled Data Report



(END OF REPORT)