

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: P776523

Luminaire Tested: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776523  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B027)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K  
Description: 8 INCH SQUARE MEDIUM LENSED WALLWASH KIT  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3604.2 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.2 / 1.3  
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')  
CIE Type: Direct

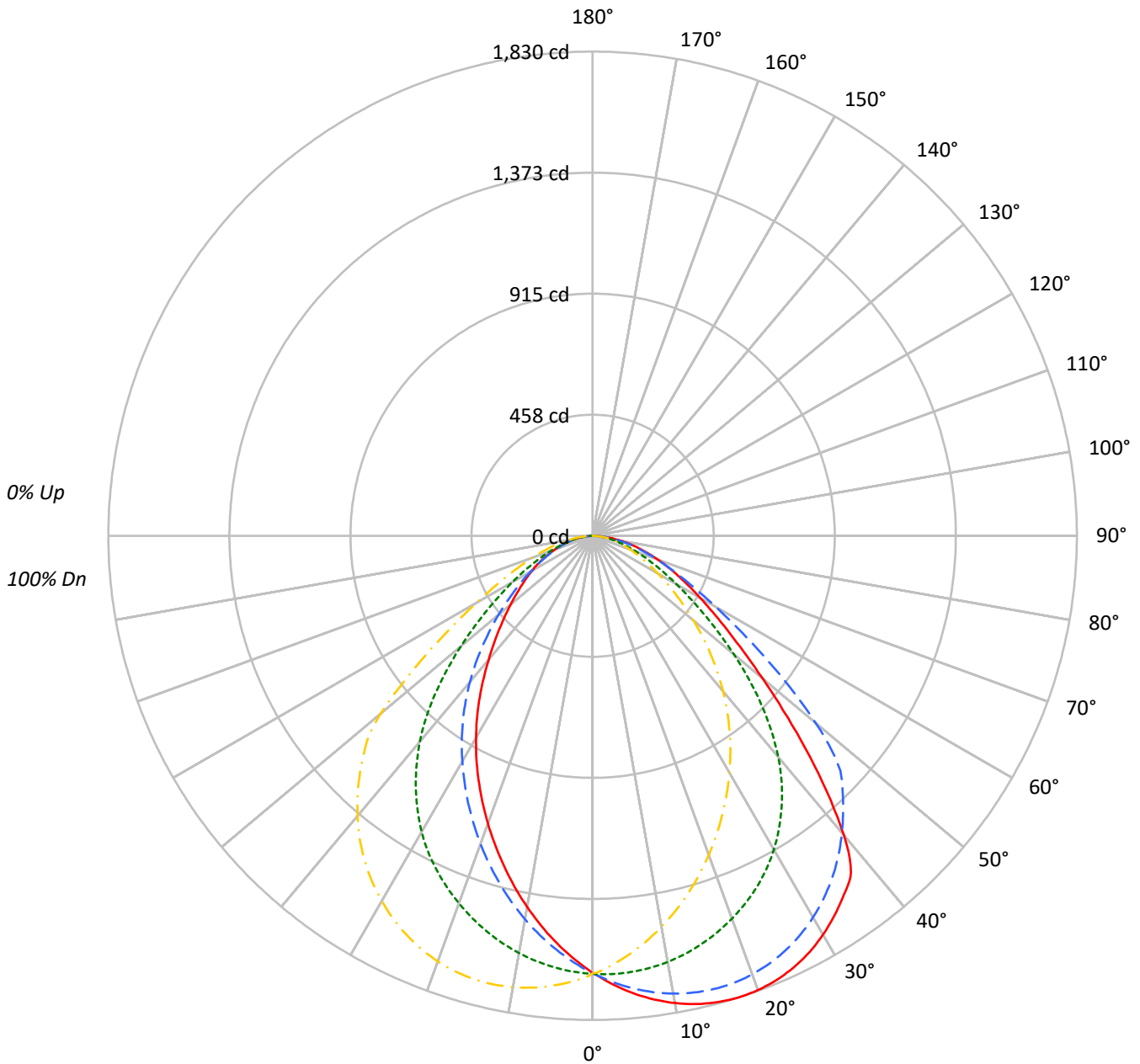
Input Watts (W): 38.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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									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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87																			
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	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	54	65	58	53	63	57	52	61	56	52	50																			
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	64	52	44	38	63	51	43	38	50	43	38	49	42	38	47	42	38	36																			
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32																			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30																			

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

	0°	90°	180°	270°
0°	39658	39658	39658	39658
5°	41749	39838	37212	39422
10°	43664	39819	34679	38987
15°	45297	39627	32098	38418
20°	46623	39284	29531	37712
25°	47618	38781	26973	36895
30°	48202	37921	24401	35767
35°	48472	36470	21755	34099
40°	46223	34131	19128	31787
45°	38614	30570	16898	28424
50°	31317	26027	15086	24236
55°	25948	21354	13708	20142
60°	22487	17519	12670	16785
65°	20136	14627	11677	14145
70°	18326	12339	10565	11974
75°	16685	10376	9589	10117
80°	14969	8561	8396	8285
85°	12188	6658	5420	6108

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 45267 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.0	4.3
10°-20°	441.2	12.2
20°-30°	652.6	18.1
30°-40°	752.0	20.9
40°-50°	684.7	19.0
50°-60°	468.9	13.0
60°-70°	275.3	7.6
70°-80°	138.8	3.9
80°-90°	34.7	1.0
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°	1249.7	34.7
0°-40°	2001.7	55.5
0°-60°	3155.4	87.5
0°-90°	3604.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3604.2	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1654	1654	1654	1654	1654	
5°	1734	1655	1546	1638	1734	167
15°	1825	1596	1293	1548	1825	516
25°	1800	1466	1020	1394	1800	829
35°	1656	1246	743	1165	1656	1030
45°	1139	902	498	838	1139	879
55°	621	511	328	482	621	564
65°	355	258	206	249	355	354
75°	180	112	104	109	180	192
85°	44	24	20	22	44	51
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°	1653.9	1653.9	1653.9	1653.9	1653.9	1653.9	1653.9	1653.9	1653.9	1653.9	1653.9
0.5°	1660.4	1660.8	1660.8	1658.8	1656.8	1653.9	1651.5	1641.9	1641.4	1642.3	1645.9
1°	1669.6	1669.2	1667.6	1663.2	1657.2	1650.7	1645.5	1633.0	1631.4	1633.0	1638.2
1.5°	1678.5	1678.1	1674.1	1666.8	1658.0	1647.5	1639.0	1624.1	1621.7	1623.3	1630.6
2°	1687.0	1686.6	1680.9	1670.9	1658.0	1643.9	1632.2	1614.9	1611.2	1613.3	1622.5
2.5°	1695.8	1694.6	1687.4	1674.5	1658.0	1640.2	1625.3	1605.6	1600.8	1603.6	1614.5
3°	1703.9	1702.3	1693.8	1678.1	1658.0	1636.6	1618.5	1595.5	1590.3	1593.5	1606.0
3.5°	1711.9	1709.9	1699.9	1681.3	1657.6	1632.6	1611.2	1585.9	1579.4	1583.0	1597.5
4°	1720.0	1717.6	1705.5	1684.1	1657.2	1628.2	1603.6	1576.2	1568.5	1572.6	1588.7
4.5°	1727.2	1724.8	1710.7	1687.0	1656.4	1624.1	1596.3	1566.1	1557.3	1561.7	1579.8
5°	1734.5	1731.7	1716.4	1689.8	1655.1	1619.3	1588.3	1555.2	1546.0	1550.8	1570.6
5.5°	1741.7	1738.5	1721.6	1692.2	1653.9	1614.9	1580.2	1545.2	1534.3	1539.9	1561.3
6°	1748.6	1745.0	1726.4	1694.2	1652.7	1609.6	1572.2	1534.3	1522.6	1528.7	1552.0
6.5°	1755.0	1751.0	1730.9	1696.2	1651.1	1604.8	1563.7	1523.8	1511.3	1517.4	1542.8
7°	1761.5	1757.5	1735.3	1697.8	1649.5	1599.2	1555.2	1512.5	1498.9	1505.7	1532.7
7.5°	1767.5	1763.1	1739.7	1699.9	1647.5	1593.9	1546.4	1501.3	1487.2	1494.4	1523.0
8°	1773.2	1768.7	1743.8	1701.1	1645.5	1588.3	1537.5	1490.0	1474.7	1482.3	1513.0
8.5°	1778.4	1774.0	1747.4	1702.3	1643.5	1582.2	1528.3	1478.7	1462.2	1470.7	1502.9
9°	1783.6	1778.8	1750.6	1703.1	1641.0	1576.6	1519.4	1467.4	1449.7	1458.2	1492.4
9.5°	1788.9	1783.6	1754.2	1703.9	1638.2	1570.2	1510.1	1455.8	1437.2	1446.5	1482.3
10°	1793.3	1788.1	1757.1	1704.3	1635.4	1563.7	1500.5	1443.7	1424.3	1434.0	1471.9
10.5°	1797.7	1792.1	1759.9	1704.7	1632.2	1557.3	1490.8	1432.0	1411.8	1421.5	1461.0
11°	1802.2	1796.1	1762.3	1704.7	1629.0	1550.4	1480.7	1419.9	1399.0	1409.4	1450.1
11.5°	1805.8	1799.8	1764.7	1704.7	1625.7	1543.6	1471.1	1407.8	1386.1	1396.5	1438.8
12°	1809.4	1803.0	1766.7	1704.3	1622.1	1536.7	1461.0	1395.7	1372.8	1384.1	1428.0
12.5°	1812.6	1806.2	1768.3	1703.9	1618.5	1529.5	1450.9	1383.2	1359.9	1371.6	1417.1
13°	1815.9	1809.0	1769.9	1703.1	1614.5	1522.2	1440.4	1370.8	1346.6	1358.3	1405.8
13.5°	1818.3	1811.4	1771.2	1701.9	1610.0	1514.6	1430.0	1358.3	1333.3	1345.4	1394.5
14°	1820.7	1813.9	1772.4	1700.7	1605.6	1506.9	1419.1	1345.4	1320.0	1332.5	1382.8
14.5°	1823.1	1815.9	1773.2	1699.5	1601.2	1499.3	1408.6	1332.9	1306.7	1319.6	1371.2
15°	1824.7	1817.5	1773.6	1697.8	1596.3	1490.8	1397.7	1319.6	1293.0	1306.3	1359.5
15.5°	1826.3	1819.1	1774.0	1695.8	1591.5	1482.7	1386.9	1307.1	1279.7	1293.4	1347.8
16°	1827.5	1820.3	1773.6	1693.8	1586.3	1474.3	1375.6	1294.2	1266.0	1280.1	1336.1
16.5°	1828.8	1821.1	1773.2	1691.4	1581.4	1465.8	1364.3	1281.3	1252.7	1267.2	1324.4
17°	1829.2	1821.5	1772.8	1689.0	1575.8	1457.4	1353.0	1268.0	1239.0	1253.5	1311.9
17.5°	1829.6	1821.5	1772.0	1686.2	1570.2	1448.5	1341.4	1255.2	1225.3	1240.7	1300.3
18°	1830.0	1821.9	1770.7	1683.3	1564.5	1439.6	1330.1	1242.3	1211.7	1226.6	1288.2
18.5°	1829.6	1821.5	1769.5	1680.1	1558.5	1430.8	1318.4	1229.0	1198.0	1213.7	1275.7
19°	1829.2	1820.7	1767.9	1676.5	1552.0	1421.5	1306.7	1215.7	1184.3	1200.4	1263.6
19.5°	1828.4	1819.9	1765.9	1672.9	1546.0	1412.2	1295.0	1202.8	1171.0	1187.1	1251.5
20°	1827.1	1818.7	1763.9	1669.2	1539.5	1403.0	1283.4	1189.5	1157.3	1173.4	1238.6
20.5°	1825.9	1817.5	1761.5	1665.2	1533.1	1393.3	1271.3	1176.2	1143.2	1159.7	1226.2
21°	1823.9	1815.5	1758.7	1661.2	1526.2	1384.1	1259.2	1162.5	1129.5	1146.4	1214.1



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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°	1817.1	1808.2	1749.0	1647.1	1505.3	1354.2	1222.5	1123.0	1088.4	1106.1	1176.2
23°	1814.3	1805.4	1745.4	1641.9	1497.6	1344.2	1210.4	1109.3	1074.7	1092.4	1163.7
23.5°	1811.0	1802.2	1741.3	1636.6	1490.0	1334.1	1198.4	1095.6	1061.0	1079.1	1151.2
24°	1807.4	1798.5	1737.3	1631.4	1482.3	1323.6	1185.9	1082.3	1047.3	1065.4	1138.3
24.5°	1803.8	1794.5	1732.5	1625.7	1474.3	1313.2	1173.4	1069.1	1033.2	1052.1	1125.4
25°	1799.8	1790.5	1727.6	1619.7	1465.8	1302.7	1160.9	1055.8	1019.5	1038.4	1113.0
25.5°	1794.9	1786.1	1722.4	1613.3	1457.4	1291.4	1148.4	1042.5	1006.2	1024.7	1100.5
26°	1790.1	1781.2	1717.6	1607.2	1448.9	1280.5	1135.9	1028.8	992.1	1011.5	1087.2
26.5°	1785.3	1776.0	1711.9	1600.4	1440.0	1269.7	1123.4	1015.1	978.0	997.8	1074.7
27°	1780.0	1770.7	1705.9	1593.9	1430.8	1258.4	1110.5	1001.4	964.3	984.5	1061.8
27.5°	1774.4	1765.1	1699.9	1586.7	1421.1	1247.1	1098.1	988.1	951.0	970.4	1048.9
28°	1767.9	1759.1	1693.4	1579.0	1411.4	1235.4	1085.2	974.8	936.9	957.1	1036.0
28.5°	1761.9	1752.6	1687.0	1571.4	1401.4	1223.7	1072.7	961.1	922.8	943.4	1023.5
29°	1755.0	1745.8	1680.1	1563.7	1391.3	1211.7	1059.8	947.4	909.1	929.7	1010.2
29.5°	1748.2	1738.9	1673.3	1555.6	1380.4	1200.0	1046.9	934.1	895.4	916.0	997.4
30°	1740.9	1732.1	1665.6	1547.2	1369.6	1187.5	1034.0	920.0	881.3	902.3	984.5
30.5°	1733.7	1724.4	1658.0	1538.3	1358.3	1175.0	1021.5	906.7	867.2	888.6	971.6
31°	1725.6	1716.8	1650.3	1529.1	1347.0	1162.1	1008.2	892.6	853.6	875.3	958.7
31.5°	1717.6	1708.7	1642.3	1519.8	1335.3	1149.6	994.9	879.3	839.9	861.6	945.8
32°	1709.5	1700.7	1633.8	1509.7	1323.2	1136.7	982.0	865.6	826.2	847.9	932.9
32.5°	1700.7	1691.8	1624.9	1499.7	1310.7	1123.0	968.8	851.9	812.1	834.2	920.0
33°	1692.2	1683.3	1616.1	1489.6	1298.3	1109.7	955.9	837.8	798.8	820.5	907.1
33.5°	1683.3	1674.1	1606.8	1478.7	1285.8	1096.4	942.6	825.0	784.7	807.2	894.2
34°	1674.1	1665.2	1597.9	1467.8	1272.5	1083.2	929.3	810.9	770.6	793.5	880.5
34.5°	1664.8	1655.5	1587.9	1456.6	1259.2	1069.5	916.0	797.2	756.9	779.8	867.7
35°	1655.9	1645.9	1578.2	1444.9	1245.9	1055.8	902.7	783.5	743.2	766.5	854.8
35.5°	1647.1	1636.2	1567.7	1432.4	1231.8	1041.7	889.0	770.2	729.5	752.9	841.5
36°	1638.6	1626.1	1557.7	1420.3	1217.7	1028.4	875.7	756.5	715.8	739.2	828.2
36.5°	1629.0	1616.5	1547.2	1407.4	1202.8	1014.3	862.4	742.4	702.1	725.5	814.9
37°	1617.7	1606.8	1535.9	1394.5	1188.3	999.8	848.7	728.7	688.8	711.8	801.6
37.5°	1603.6	1597.1	1525.0	1381.6	1173.0	985.3	834.6	715.4	675.5	698.5	788.3
38°	1583.0	1587.9	1513.4	1367.9	1156.9	971.2	821.3	701.7	662.2	685.2	775.0
38.5°	1561.7	1577.0	1501.7	1353.8	1141.2	956.7	807.6	688.0	649.3	671.5	761.7
39°	1535.9	1564.9	1490.0	1338.9	1124.6	942.2	793.9	674.7	636.4	658.6	748.4
39.5°	1507.3	1547.6	1477.9	1324.4	1108.1	927.3	780.2	661.4	623.5	645.3	734.7
40°	1476.7	1528.7	1465.4	1309.1	1090.4	912.4	766.5	648.1	611.1	632.4	721.4
40.5°	1443.3	1504.5	1453.3	1293.0	1073.1	897.9	752.9	634.8	599.0	619.5	708.1
41°	1411.4	1479.5	1440.4	1276.1	1055.4	882.6	738.8	622.3	586.9	607.4	694.4
41.5°	1376.8	1448.1	1427.6	1259.2	1037.2	867.7	725.1	609.5	575.2	594.5	680.7
42°	1343.8	1419.5	1414.3	1241.1	1018.7	852.3	711.4	597.0	563.5	582.5	667.5
42.5°	1309.1	1386.5	1401.0	1222.5	999.8	837.4	697.7	584.5	552.3	570.4	654.2
43°	1274.9	1355.9	1388.1	1203.2	980.8	822.1	684.0	572.4	541.0	558.7	640.9
43.5°	1239.8	1321.6	1374.4	1184.7	961.5	806.4	670.3	559.9	529.7	546.6	627.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1138.7	1222.1	1334.9	1121.4	901.5	760.5	629.2	525.3	498.3	513.2	587.7
45.5°	1103.7	1187.9	1321.6	1100.1	881.3	744.8	615.5	514.0	487.8	502.3	574.8
46°	1073.1	1155.7	1306.3	1077.9	861.2	729.5	601.8	502.7	478.1	491.4	561.5
46.5°	1038.8	1121.0	1290.6	1055.0	840.7	713.8	588.5	491.8	468.1	481.0	548.6
47°	1010.2	1090.4	1268.0	1031.6	820.1	698.5	574.8	481.4	458.4	470.9	536.1
47.5°	976.4	1056.6	1246.7	1007.4	799.2	682.8	561.5	471.3	449.1	460.8	523.7
48°	949.8	1027.2	1219.3	982.9	779.4	667.5	548.2	460.4	439.9	451.1	511.6
48.5°	918.0	993.3	1193.5	958.3	758.5	652.1	534.9	450.3	430.6	441.5	499.1
49°	893.0	965.9	1162.5	933.7	737.9	636.8	522.0	440.7	421.7	431.8	487.0
49.5°	862.8	934.1	1133.5	908.7	717.8	621.5	509.2	431.0	413.3	422.5	475.3
50°	839.5	907.9	1100.5	883.8	697.7	606.2	496.3	421.3	404.4	413.3	463.6
50.5°	811.3	878.5	1068.7	858.0	676.7	590.9	483.8	412.1	396.0	404.4	452.0
51°	789.5	852.3	1035.6	832.2	657.4	576.0	471.7	402.8	388.3	396.0	440.7
51.5°	763.3	825.0	1003.8	806.8	637.6	561.5	459.6	393.5	380.3	387.1	429.8
52°	742.4	800.8	970.0	781.9	618.3	546.6	447.5	385.1	372.2	378.6	418.9
52.5°	719.0	775.8	938.9	756.9	599.0	531.7	435.8	376.2	364.1	370.6	408.0
53°	699.3	752.0	906.3	731.5	580.9	517.2	424.6	367.8	356.5	362.1	397.6
53.5°	677.5	728.7	875.7	706.5	562.3	503.1	413.3	359.3	349.2	354.5	387.1
54°	658.2	705.7	843.9	682.0	544.6	489.0	402.0	351.7	342.0	346.8	377.4
54.5°	638.9	684.8	814.1	658.2	526.9	474.9	391.1	344.0	335.1	339.6	367.4
55°	620.7	662.6	785.1	634.4	510.8	461.2	380.7	335.9	327.9	331.9	357.7
55.5°	603.4	645.3	755.7	611.9	493.8	447.5	370.2	328.3	321.0	324.7	348.0
56°	585.7	623.1	728.7	589.7	477.7	434.2	359.7	320.6	313.8	317.4	339.2
56.5°	570.4	607.4	700.9	568.4	462.0	421.3	350.0	313.0	307.7	310.2	330.3
57°	552.7	586.9	675.9	547.4	447.1	408.4	340.4	306.5	301.3	303.3	321.4
57.5°	539.4	572.4	649.3	527.7	432.2	396.0	331.1	299.7	294.9	296.5	312.6
58°	522.8	553.5	625.6	507.9	418.1	383.9	321.4	292.8	288.4	289.6	303.7
58.5°	510.8	538.6	602.2	489.8	404.4	371.8	312.2	286.0	282.0	283.2	295.3
59°	494.6	522.0	579.2	472.1	390.7	360.1	302.5	279.1	275.9	276.7	286.8
59.5°	483.8	507.5	558.3	455.2	377.8	349.2	293.6	272.7	269.9	270.3	278.7
60°	468.9	492.2	536.5	438.7	365.3	338.4	284.8	266.3	264.2	264.2	270.7
60.5°	456.8	476.9	518.0	422.9	352.9	327.5	276.7	259.8	258.2	258.2	263.0
61°	443.9	464.0	497.1	407.6	341.6	316.6	268.3	253.4	252.6	252.2	255.4
61.5°	431.8	448.7	480.1	393.5	330.3	305.7	259.8	247.3	246.9	246.5	248.1
62°	420.1	437.0	462.0	379.8	318.6	295.3	252.2	241.7	241.3	240.5	240.5
62.5°	408.4	423.4	444.3	366.6	307.3	285.6	244.5	235.6	235.2	234.8	233.6
63°	397.2	411.3	429.0	353.7	297.3	275.5	236.9	230.0	229.2	229.2	226.8
63.5°	386.3	398.8	412.9	341.6	286.8	266.3	229.2	224.4	223.6	223.6	219.9
64°	375.8	386.3	398.4	329.1	277.1	257.0	221.9	218.7	217.5	217.9	213.5
64.5°	364.9	375.4	383.9	317.8	267.5	248.1	215.1	213.1	211.5	211.9	207.0
65°	354.9	363.7	369.4	306.9	257.8	239.3	208.3	207.4	205.8	206.2	200.6
65.5°	344.8	353.3	356.9	296.1	248.5	230.8	201.8	201.4	200.2	200.6	194.6
66°	334.7	342.4	343.6	285.6	239.7	222.4	195.4	195.8	194.6	195.4	188.5





TEST NUMBER: P776523

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	306.1	311.0	307.7	256.2	214.3	198.2	176.8	179.7	178.0	179.3	171.6
68°	297.3	301.3	296.5	247.3	206.2	190.9	171.2	174.4	172.4	174.0	166.4
68.5°	288.0	291.6	286.0	238.5	198.6	183.7	165.6	169.6	167.2	168.8	160.7
69°	279.1	282.4	275.1	229.6	190.9	176.4	159.9	164.3	161.5	163.5	155.5
69.5°	270.7	273.1	265.0	221.1	183.3	169.2	154.7	159.1	156.3	158.7	150.7
70°	261.4	263.8	255.4	212.7	176.0	162.3	149.4	154.3	150.7	153.5	145.4
70.5°	253.0	254.6	245.7	204.6	168.8	155.9	144.6	149.4	145.8	148.6	140.6
71°	244.5	245.7	236.4	197.0	161.9	149.8	139.4	144.2	140.2	143.4	135.7
71.5°	236.0	237.3	227.2	189.3	155.1	143.4	134.5	139.4	135.3	138.2	130.9
72°	228.0	228.8	218.3	181.7	148.6	137.0	129.7	134.1	130.5	133.3	126.5
72.5°	219.9	220.3	209.9	174.0	142.2	131.3	124.9	129.3	126.1	128.5	122.1
73°	211.9	212.3	201.4	167.2	135.7	125.3	120.4	124.5	121.6	124.1	117.6
73.5°	203.4	203.8	192.9	159.9	129.7	119.6	116.0	120.0	116.8	119.2	113.2
74°	195.8	195.8	184.9	153.1	123.7	114.0	111.6	115.6	112.4	114.8	108.8
74.5°	188.1	187.7	176.8	146.2	118.0	108.8	107.1	110.8	108.0	110.0	104.3
75°	180.1	180.1	169.2	140.2	112.0	103.5	103.1	106.7	103.5	105.5	99.9
75.5°	172.8	172.4	161.5	133.7	106.3	98.3	98.7	101.9	99.1	101.1	95.9
76°	165.2	164.7	154.3	127.7	101.1	93.5	94.7	97.5	94.7	96.7	91.4
76.5°	157.5	157.1	147.0	121.2	95.9	88.6	90.6	93.0	90.6	92.2	87.0
77°	150.2	149.8	140.2	115.2	90.6	83.8	86.6	88.6	86.2	87.8	83.4
77.5°	143.4	142.6	133.3	109.2	85.4	79.4	82.2	84.2	82.2	83.4	79.0
78°	136.6	135.7	126.5	103.1	80.6	74.9	78.1	79.8	77.7	79.0	74.9
78.5°	129.3	128.9	119.6	97.5	75.7	70.5	74.1	75.7	73.7	74.9	70.9
79°	122.5	121.6	112.8	91.8	71.3	66.5	70.5	71.3	69.3	70.5	66.9
79.5°	115.2	114.8	105.9	86.2	66.5	62.4	66.5	66.9	65.3	66.5	62.8
80°	108.4	108.0	99.5	81.0	62.0	58.4	62.4	62.4	60.8	62.4	58.8
80.5°	101.5	101.1	93.0	75.3	57.6	54.8	58.8	58.0	56.8	58.0	54.8
81°	95.1	94.7	87.0	70.5	53.6	51.2	54.8	53.6	52.8	54.0	51.2
81.5°	88.2	87.8	81.0	65.3	49.5	47.5	50.8	49.1	48.3	49.5	47.1
82°	81.8	81.8	74.9	60.4	45.5	43.9	46.7	45.1	44.3	45.5	43.5
82.5°	75.3	75.3	68.9	55.6	41.5	40.7	43.1	40.7	40.3	41.5	39.5
83°	68.9	68.9	63.2	50.8	38.3	37.5	39.1	36.7	35.9	37.1	35.9
83.5°	62.4	62.8	57.2	45.9	34.6	34.2	35.4	32.2	31.8	33.0	32.2
84°	56.4	56.8	51.6	41.9	31.0	31.0	31.8	28.2	27.8	29.0	28.6
84.5°	50.4	50.8	46.3	37.5	27.4	27.8	28.6	24.2	23.8	25.0	25.4
85°	44.3	44.7	41.1	33.4	24.2	24.6	25.0	19.7	19.7	20.5	21.8
85.5°	38.3	38.7	36.3	29.0	20.5	21.3	21.3	16.1	15.7	16.9	18.5
86°	32.2	33.0	31.4	25.4	17.3	18.5	18.1	12.9	12.5	13.3	15.3
86.5°	26.2	27.4	27.0	21.3	14.5	15.3	14.9	10.1	9.7	10.5	12.1
87°	20.5	22.2	22.2	17.7	11.7	12.1	11.7	7.3	7.3	8.1	9.3
87.5°	16.5	17.7	17.7	13.7	8.9	9.3	8.9	4.8	4.8	5.2	6.0
88°	13.3	13.7	13.7	10.5	6.0	6.4	5.6	2.4	2.4	2.8	3.2
88.5°	10.1	10.5	10.5	7.3	3.6	3.2	2.8	0.8	0.8	0.8	0.8



TEST NUMBER: P776523

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776523

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1653.9	1653.9	1653.9	1653.9	1653.9	1653.9
0.5°	1649.9	1655.1	1659.2	1663.6	1658.8	1660.4
1°	1645.1	1653.9	1661.6	1669.2	1666.8	1669.6
1.5°	1640.2	1652.3	1664.0	1674.5	1674.5	1678.5
2°	1635.0	1651.1	1666.0	1679.7	1682.1	1687.0
2.5°	1629.8	1649.1	1668.0	1685.0	1689.8	1695.8
3°	1624.1	1647.5	1669.6	1689.4	1697.4	1703.9
3.5°	1618.5	1645.1	1670.9	1694.2	1704.3	1711.9
4°	1612.8	1643.1	1672.1	1698.6	1711.1	1720.0
4.5°	1606.8	1640.6	1673.3	1702.7	1717.6	1727.2
5°	1600.4	1637.8	1674.1	1706.3	1724.0	1734.5
5.5°	1594.3	1635.0	1674.9	1709.9	1729.7	1741.7
6°	1587.9	1632.2	1675.3	1713.6	1735.7	1748.6
6.5°	1581.0	1629.0	1675.3	1716.8	1741.3	1755.0
7°	1574.2	1625.3	1675.3	1720.0	1746.6	1761.5
7.5°	1566.9	1622.1	1675.3	1722.4	1751.8	1767.5
8°	1559.7	1618.1	1674.9	1724.8	1756.7	1773.2
8.5°	1552.4	1614.5	1674.5	1727.2	1761.1	1778.4
9°	1545.2	1610.0	1673.3	1729.3	1765.5	1783.6
9.5°	1537.5	1606.0	1672.5	1730.9	1769.5	1788.9
10°	1529.5	1601.2	1671.3	1732.5	1773.2	1793.3
10.5°	1521.8	1596.7	1670.0	1733.7	1776.8	1797.7
11°	1513.8	1591.9	1668.4	1734.9	1780.0	1802.2
11.5°	1505.3	1587.1	1666.4	1735.7	1782.8	1805.8
12°	1496.8	1581.8	1664.4	1736.5	1785.7	1809.4
12.5°	1488.4	1576.6	1662.4	1736.9	1788.1	1812.6
13°	1479.9	1571.0	1659.6	1736.9	1790.1	1815.9
13.5°	1471.1	1565.3	1657.2	1736.5	1792.1	1818.3
14°	1462.2	1559.7	1654.3	1736.1	1793.7	1820.7
14.5°	1452.9	1553.6	1651.1	1735.7	1794.9	1823.1
15°	1443.7	1547.6	1647.9	1734.5	1795.7	1824.7
15.5°	1434.4	1541.1	1644.3	1733.3	1796.5	1826.3
16°	1425.1	1534.7	1640.6	1732.1	1797.3	1827.5
16.5°	1415.5	1528.3	1637.0	1730.5	1797.3	1828.8
17°	1405.8	1521.4	1633.0	1728.5	1797.3	1829.2
17.5°	1395.7	1514.6	1628.6	1726.4	1796.9	1829.6
18°	1386.1	1507.3	1624.1	1724.0	1796.1	1830.0
18.5°	1376.0	1500.1	1619.7	1721.2	1795.3	1829.6
19°	1365.9	1492.8	1614.9	1718.4	1794.1	1829.2
19.5°	1355.9	1485.6	1609.6	1715.2	1792.5	1828.4
20°	1345.4	1477.9	1604.8	1711.9	1790.5	1827.1
20.5°	1334.9	1470.3	1599.2	1708.3	1788.5	1825.9
21°	1324.4	1462.2	1593.5	1703.9	1786.1	1823.9

TEST NUMBER: P776523

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1292.6	1438.0	1575.8	1691.0	1777.2	1817.1
23°	1281.7	1429.6	1569.7	1686.2	1773.6	1814.3
23.5°	1270.9	1421.1	1563.3	1680.9	1769.9	1811.0
24°	1260.0	1412.7	1556.9	1675.7	1765.9	1807.4
24.5°	1248.7	1403.8	1550.0	1670.0	1761.5	1803.8
25°	1237.8	1394.5	1543.2	1664.4	1756.7	1799.8
25.5°	1226.6	1385.3	1535.9	1658.4	1751.4	1794.9
26°	1215.3	1376.0	1528.7	1651.9	1746.6	1790.1
26.5°	1203.6	1366.3	1521.0	1645.5	1740.9	1785.3
27°	1192.3	1356.7	1513.4	1638.6	1734.9	1780.0
27.5°	1180.6	1346.6	1505.3	1631.8	1728.9	1774.4
28°	1169.0	1336.1	1496.8	1624.5	1722.4	1767.9
28.5°	1156.5	1325.6	1488.4	1617.3	1715.6	1761.9
29°	1144.8	1314.8	1479.5	1609.6	1708.7	1755.0
29.5°	1132.3	1303.5	1470.7	1602.0	1701.1	1748.2
30°	1119.8	1291.8	1461.0	1593.9	1693.8	1740.9
30.5°	1107.3	1280.1	1450.9	1585.9	1686.2	1733.7
31°	1094.4	1268.4	1441.3	1577.0	1678.1	1725.6
31.5°	1081.9	1256.0	1430.8	1568.5	1669.6	1717.6
32°	1069.1	1243.5	1419.9	1559.7	1661.2	1709.5
32.5°	1055.8	1231.0	1408.6	1550.4	1652.3	1700.7
33°	1042.9	1218.1	1397.3	1541.1	1643.1	1692.2
33.5°	1029.2	1205.2	1385.7	1531.1	1633.8	1683.3
34°	1015.5	1191.5	1373.6	1521.4	1624.5	1674.1
34.5°	1002.2	1178.6	1361.1	1511.3	1614.9	1664.8
35°	989.3	1164.9	1348.6	1500.9	1604.8	1655.9
35.5°	975.2	1151.2	1335.7	1490.4	1594.7	1647.1
36°	961.5	1136.7	1322.8	1479.5	1584.7	1638.6
36.5°	947.8	1122.6	1309.1	1468.2	1574.2	1629.0
37°	934.5	1108.1	1295.4	1456.6	1563.7	1617.7
37.5°	920.4	1093.2	1281.3	1444.9	1553.2	1603.6
38°	906.7	1077.9	1266.8	1432.8	1543.2	1583.0
38.5°	892.6	1062.6	1251.9	1420.3	1533.1	1561.7
39°	879.3	1047.3	1237.0	1407.8	1523.4	1535.9
39.5°	864.4	1032.0	1220.9	1394.9	1511.7	1507.3
40°	850.7	1015.5	1205.2	1381.6	1499.7	1476.7
40.5°	836.6	999.0	1188.7	1368.3	1480.7	1443.3
41°	822.5	982.5	1171.4	1355.1	1462.2	1411.4
41.5°	808.4	965.5	1153.6	1341.0	1438.0	1376.8
42°	794.3	948.2	1135.9	1326.9	1413.1	1343.8
42.5°	780.2	930.5	1117.4	1312.8	1383.6	1309.1
43°	766.1	912.4	1098.1	1298.7	1356.3	1274.9
43.5°	751.6	894.2	1077.9	1283.8	1324.8	1239.8



TEST NUMBER: P776523

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	708.5	838.2	1013.9	1238.2	1232.6	1138.7
45.5°	693.6	818.9	991.7	1222.5	1200.4	1103.7
46°	679.1	800.4	968.4	1207.6	1169.4	1073.1
46.5°	664.6	781.5	945.4	1191.5	1137.5	1038.8
47°	650.1	762.1	921.6	1176.2	1106.9	1010.2
47.5°	636.0	743.2	898.3	1158.9	1074.7	976.4
48°	621.1	724.3	874.5	1141.2	1044.9	949.8
48.5°	607.0	705.3	850.3	1121.4	1013.9	918.0
49°	592.5	686.8	826.6	1096.0	985.3	893.0
49.5°	578.4	668.7	803.2	1071.9	955.5	862.8
50°	564.3	649.7	779.4	1043.3	928.5	839.5
50.5°	549.8	631.6	755.7	1014.3	899.1	811.3
51°	536.1	613.5	731.9	984.1	872.5	789.5
51.5°	522.0	596.2	708.9	952.6	845.9	763.3
52°	508.3	578.4	686.4	920.8	821.3	742.4
52.5°	494.6	561.5	664.2	891.0	795.1	719.0
53°	481.0	545.0	641.7	860.0	770.2	699.3
53.5°	468.1	528.9	620.3	829.8	747.6	677.5
54°	454.8	512.4	599.8	799.6	723.8	658.2
54.5°	441.9	497.1	579.6	771.0	702.5	638.9
55°	429.0	481.8	560.3	743.2	678.7	620.7
55.5°	416.5	467.3	541.0	715.0	659.8	603.4
56°	404.0	452.8	522.4	688.8	637.2	585.7
56.5°	392.3	438.7	505.1	662.6	619.9	570.4
57°	380.3	424.6	487.8	638.0	598.2	552.7
57.5°	368.6	411.3	471.3	613.9	582.1	539.4
58°	357.3	398.4	455.2	590.9	562.3	522.8
58.5°	346.8	385.9	440.3	568.8	546.6	510.8
59°	336.3	373.8	425.8	546.6	529.3	494.6
59.5°	325.9	361.7	411.7	527.3	513.2	483.8
60°	315.4	350.0	397.6	507.1	497.9	468.9
60.5°	304.5	338.4	384.7	488.2	482.6	456.8
61°	294.5	327.5	371.8	469.7	468.9	443.9
61.5°	285.2	317.0	359.7	452.4	453.6	431.8
62°	275.5	306.5	348.0	435.8	441.5	420.1
62.5°	266.3	296.1	336.7	420.1	427.4	408.4
63°	257.0	286.4	325.1	404.8	414.9	397.2
63.5°	248.5	276.7	314.6	390.3	402.4	386.3
64°	240.1	267.1	304.1	375.4	389.5	375.8
64.5°	231.6	257.8	294.1	362.5	378.2	364.9
65°	223.2	249.3	284.0	349.2	366.2	354.9
65.5°	215.1	240.1	274.3	337.2	355.7	344.8
66°	207.4	231.6	265.0	324.7	344.4	334.7



TEST NUMBER: P776523

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	185.3	207.0	238.5	291.6	312.6	306.1
68°	178.4	199.8	229.6	280.4	302.9	297.3
68.5°	171.6	192.1	221.5	270.7	293.2	288.0
69°	165.2	184.9	213.5	260.6	283.2	279.1
69.5°	158.3	177.6	205.8	251.0	273.9	270.7
70°	152.3	170.8	198.2	241.7	264.6	261.4
70.5°	145.8	163.5	190.5	232.4	255.4	253.0
71°	139.8	157.1	182.9	223.6	246.9	244.5
71.5°	134.1	150.2	176.0	214.7	238.1	236.0
72°	128.5	144.6	168.8	206.2	229.2	228.0
72.5°	122.9	138.6	161.9	198.2	220.7	219.9
73°	117.2	132.5	155.1	189.7	212.3	211.9
73.5°	112.0	126.5	148.2	182.1	204.2	203.4
74°	106.7	120.4	142.2	174.4	196.2	195.8
74.5°	101.9	114.8	136.1	166.4	188.1	188.1
75°	97.1	109.2	130.1	159.1	180.1	180.1
75.5°	92.2	103.5	123.7	151.9	172.4	172.8
76°	87.4	98.3	117.6	143.4	165.2	165.2
76.5°	83.0	93.0	111.6	137.0	157.5	157.5
77°	79.0	88.2	105.9	130.5	149.8	150.2
77.5°	74.9	83.0	100.3	124.1	142.6	143.4
78°	70.5	78.1	94.7	117.2	135.7	136.6
78.5°	66.5	73.7	89.4	110.8	128.9	129.3
79°	62.8	68.9	83.8	104.3	122.1	122.5
79.5°	59.2	64.4	78.5	97.9	114.8	115.2
80°	55.6	60.0	73.3	91.4	108.0	108.4
80.5°	52.0	56.0	68.5	85.4	101.1	101.5
81°	48.3	51.6	63.6	79.4	94.7	95.1
81.5°	44.7	47.5	58.8	73.3	88.2	88.2
82°	41.5	43.9	54.0	67.3	81.4	81.8
82.5°	37.9	39.9	49.5	61.6	75.3	75.3
83°	34.6	36.3	45.1	56.0	68.9	68.9
83.5°	31.4	32.6	40.7	50.4	62.8	62.4
84°	28.2	29.0	36.3	45.1	56.4	56.4
84.5°	25.0	25.8	32.2	39.9	50.4	50.4
85°	21.8	22.2	28.2	35.0	44.7	44.3
85.5°	18.5	19.3	24.2	30.6	38.7	38.3
86°	15.3	16.1	20.5	25.8	33.0	32.2
86.5°	12.5	13.3	16.9	21.3	27.8	26.2
87°	9.3	10.5	13.7	17.3	23.0	20.5
87.5°	6.0	7.7	10.5	12.9	18.5	16.5
88°	3.2	4.8	7.3	9.7	14.5	13.3
88.5°	0.8	2.0	4.0	6.4	10.9	10.1



TEST NUMBER: P776523

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-HCD8TSQLWW-4000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.4	0.4

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

Scaled Data Report



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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°	1821.9	1813.4	1755.8	1656.8	1519.4	1374.0	1247.1	1149.2	1116.2	1133.1	1201.6
22°	1819.9	1811.0	1752.6	1651.9	1512.5	1364.3	1235.0	1135.9	1102.1	1119.8	1188.7



44°	1206.0	1288.6	1361.1	1164.1	941.8	791.1	656.6	548.6	519.2	535.3	613.9
44.5°	1171.4	1254.8	1347.8	1143.2	922.0	775.8	642.9	536.5	508.3	524.1	601.0



66.5°	325.5	331.5	331.1	275.5	231.2	213.9	188.9	190.5	188.9	189.7	182.9
67°	315.8	321.4	319.4	265.9	222.8	206.2	182.9	185.3	183.3	184.5	177.2



89°	6.8	6.8	6.8	4.0	1.2	0.8	0.8	0.4	0.0	0.4	0.4
89.5°	3.6	3.6	3.6	0.8	0.0	0.0	0.0	0.4	0.0	0.4	0.0



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21.5°	1314.0	1454.1	1587.9	1699.9	1783.6	1821.9
22°	1303.5	1446.1	1581.8	1695.8	1780.4	1819.9



44°	737.1	875.7	1057.4	1268.8	1295.4	1206.0
44.5°	723.0	857.2	1036.0	1253.5	1263.2	1171.4

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66.5°	200.2	223.6	255.8	313.4	333.5	325.5
67°	192.5	215.5	246.9	302.1	323.5	315.8

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89°	0.0	0.4	0.8	3.2	7.3	6.8
89.5°	0.0	0.0	0.0	0.4	4.0	3.6

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)