

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: P776198

Luminaire Tested: HCDJBL51525CSD-HCD8TRMW-2500lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776198
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: HCDJBLS1525CSD-HCD8TRMW-2500lm-4000K
Description: 8 INCH ROUND MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

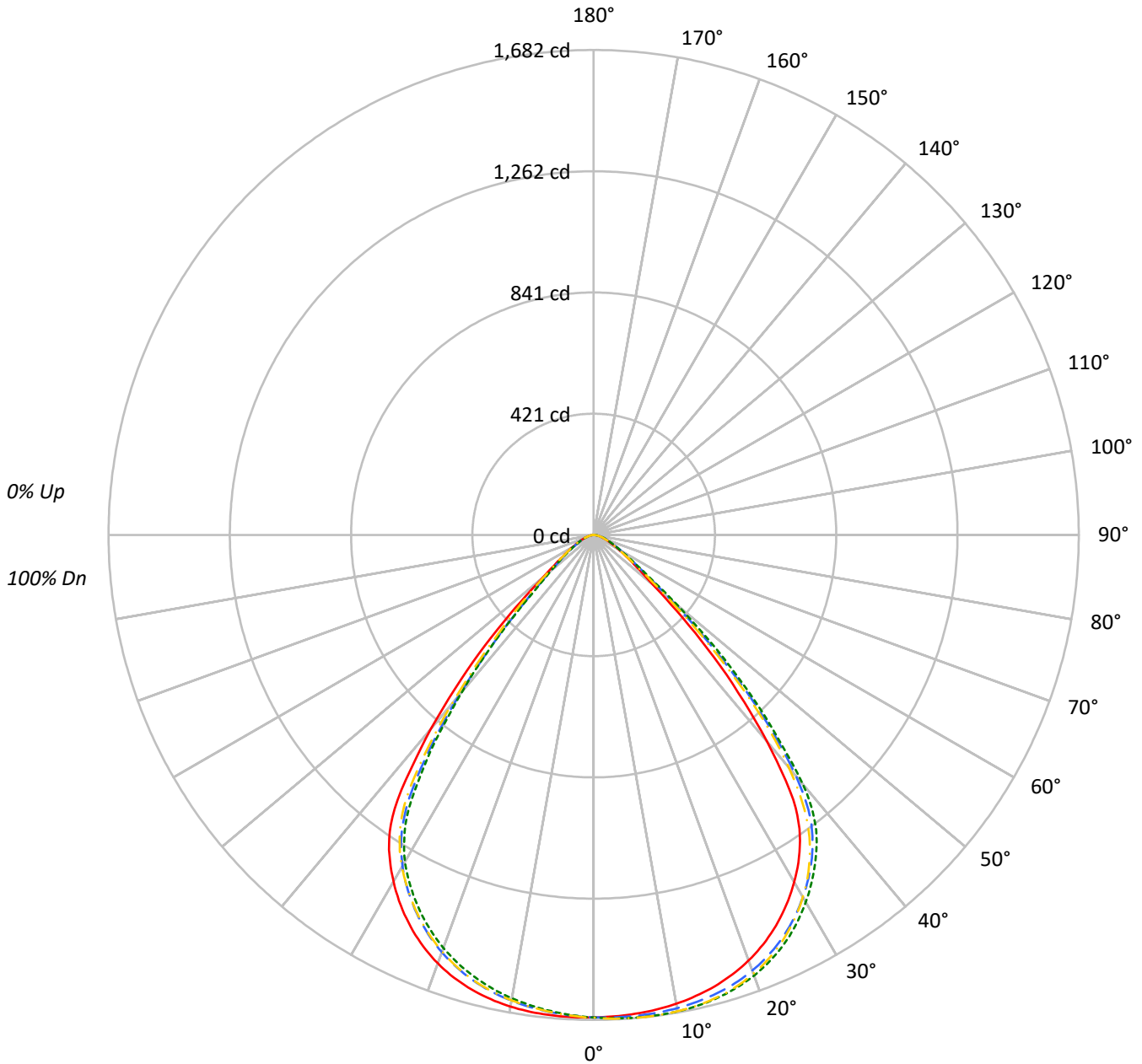
Lumens per Lamp: N/A
Luminaire Lumens: 2711.4 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.22 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 25
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



TEST NUMBER: P776198
CATALOG NUMBER: HCDJBL51525CSD-HCD8TRMW-2500lm-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P776198

CATALOG NUMBER: HCDJBLS1525CSD-HCD8TRMW-2500lm-4000K

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 | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98 | 99 | 97 | 95 | 95 | 94 | 93 | 91 | | | | | | | | | | | | | | | | | | | |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 86 | 84 | 82 | | | | | | | | | | | | | | | | | | | |
| 3 | 98 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | 74 | | | | | | | | | | | | | | | | | | | |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 71 | 68 | 66 | | | | | | | | | | | | | | | | | | | |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 | | | | | | | | | | | | | | | | | | | |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 62 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 55 | | | | | | | | | | | | | | | | | | | |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 57 | 52 | 63 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 51 | 50 | | | | | | | | | | | | | | | | | | | |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 56 | 51 | 47 | 46 | | | | | | | | | | | | | | | | | | | |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 43 | 42 | | | | | | | | | | | | | | | | | | | |
| 10 | 63 | 52 | 45 | 41 | 62 | 51 | 45 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 39 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 51105 | 51105 | 51105 | 51105 |
| 5° | 51082 | 51502 | 51263 | 50834 |
| 10° | 51177 | 52020 | 51499 | 50585 |
| 15° | 51229 | 52538 | 51605 | 50208 |
| 20° | 51031 | 52841 | 51363 | 49521 |
| 25° | 50368 | 52682 | 50550 | 48236 |
| 30° | 49020 | 51861 | 48939 | 46115 |
| 35° | 46357 | 50136 | 45705 | 40304 |
| 40° | 37220 | 44964 | 34940 | 28305 |
| 45° | 24157 | 31687 | 21610 | 15738 |
| 50° | 12800 | 18001 | 11133 | 9105 |
| 55° | 8346 | 9565 | 7106 | 6361 |
| 60° | 5990 | 6662 | 5135 | 4781 |
| 65° | 4645 | 5144 | 4002 | 3800 |
| 70° | 3740 | 4240 | 3222 | 3062 |
| 75° | 3091 | 3633 | 2583 | 2430 |
| 80° | 2461 | 3165 | 1916 | 1793 |
| 85° | 1787 | 2942 | 1086 | 876 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 32343 cd/sqm



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBL51525CSD-HCD8TRMW-2500lm-4000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 159.0 | 5.9 |
| 10°-20° | 458.8 | 16.9 |
| 20°-30° | 688.3 | 25.4 |
| 30°-40° | 744.9 | 27.5 |
| 40°-50° | 424.3 | 15.6 |
| 50°-60° | 140.8 | 5.2 |
| 60°-70° | 62.1 | 2.3 |
| 70°-80° | 27.1 | 1.0 |
| 80°-90° | 6.0 | 0.2 |
| 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° | 1306.0 | 48.2 |
| 0°-40° | 2051.0 | 75.6 |
| 0°-60° | 2616.1 | 96.5 |
| 0°-90° | 2711.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2711.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1674 | 1674 | 1674 | 1674 | 1674 | |
| 5° | 1667 | 1680 | 1673 | 1659 | 1667 | 159 |
| 15° | 1621 | 1662 | 1633 | 1588 | 1621 | 457 |
| 25° | 1495 | 1564 | 1501 | 1432 | 1495 | 687 |
| 35° | 1244 | 1345 | 1226 | 1081 | 1244 | 757 |
| 45° | 560 | 734 | 500 | 364 | 560 | 435 |
| 55° | 157 | 180 | 134 | 120 | 157 | 146 |
| 65° | 64 | 71 | 55 | 53 | 64 | 65 |
| 75° | 26 | 31 | 22 | 21 | 26 | 28 |
| 85° | 5 | 8 | 3 | 2 | 5 | 6 |
| 90° | 0 | 1 | 0 | 0 | 0 | |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBLS1525CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 |
| 0.5° | 1673.2 | 1673.7 | 1673.7 | 1673.9 | 1674.9 | 1675.7 | 1676.5 | 1675.4 | 1673.9 | 1673.2 | 1672.4 |
| 1° | 1672.9 | 1673.7 | 1673.9 | 1674.4 | 1676.0 | 1676.7 | 1677.2 | 1676.0 | 1674.2 | 1672.9 | 1671.6 |
| 1.5° | 1672.4 | 1673.4 | 1674.4 | 1675.2 | 1676.7 | 1677.7 | 1678.0 | 1676.5 | 1674.2 | 1672.7 | 1670.9 |
| 2° | 1671.9 | 1673.4 | 1674.7 | 1676.0 | 1677.5 | 1678.8 | 1678.8 | 1677.0 | 1674.2 | 1672.1 | 1669.9 |
| 2.5° | 1671.4 | 1673.2 | 1674.9 | 1676.5 | 1678.2 | 1679.3 | 1679.3 | 1677.2 | 1674.2 | 1671.6 | 1668.8 |
| 3° | 1670.6 | 1672.9 | 1674.9 | 1677.0 | 1679.0 | 1680.3 | 1679.8 | 1677.5 | 1674.2 | 1670.9 | 1667.8 |
| 3.5° | 1669.6 | 1672.7 | 1674.9 | 1677.5 | 1679.5 | 1680.8 | 1680.5 | 1677.5 | 1673.7 | 1670.4 | 1666.6 |
| 4° | 1668.8 | 1672.1 | 1674.9 | 1677.7 | 1680.0 | 1681.3 | 1680.8 | 1677.7 | 1673.4 | 1669.6 | 1665.3 |
| 4.5° | 1668.1 | 1671.4 | 1674.7 | 1678.0 | 1680.3 | 1681.8 | 1681.0 | 1677.7 | 1673.2 | 1668.6 | 1664.0 |
| 5° | 1666.8 | 1670.6 | 1674.4 | 1678.0 | 1680.5 | 1682.1 | 1681.3 | 1677.5 | 1672.7 | 1667.6 | 1662.5 |
| 5.5° | 1665.8 | 1670.1 | 1674.2 | 1678.2 | 1680.5 | 1682.3 | 1681.3 | 1677.2 | 1672.1 | 1666.6 | 1661.0 |
| 6° | 1664.5 | 1669.1 | 1673.7 | 1678.2 | 1680.8 | 1682.6 | 1681.5 | 1677.0 | 1671.4 | 1665.3 | 1659.2 |
| 6.5° | 1663.2 | 1668.3 | 1673.2 | 1678.0 | 1680.8 | 1682.6 | 1681.5 | 1676.5 | 1670.6 | 1664.0 | 1657.4 |
| 7° | 1662.0 | 1667.1 | 1672.7 | 1677.7 | 1680.8 | 1682.6 | 1681.3 | 1676.0 | 1669.6 | 1662.5 | 1655.4 |
| 7.5° | 1660.5 | 1666.0 | 1671.9 | 1677.5 | 1680.5 | 1682.6 | 1681.0 | 1675.4 | 1668.6 | 1661.0 | 1653.3 |
| 8° | 1658.7 | 1664.8 | 1671.1 | 1677.0 | 1680.3 | 1682.3 | 1680.5 | 1674.7 | 1667.3 | 1659.4 | 1651.0 |
| 8.5° | 1656.9 | 1663.5 | 1670.1 | 1676.5 | 1679.8 | 1682.1 | 1680.0 | 1673.7 | 1666.0 | 1657.4 | 1648.8 |
| 9° | 1655.1 | 1662.0 | 1669.1 | 1675.7 | 1679.3 | 1681.8 | 1679.5 | 1672.7 | 1664.5 | 1655.6 | 1646.2 |
| 9.5° | 1653.1 | 1660.2 | 1668.1 | 1675.2 | 1678.8 | 1681.0 | 1678.8 | 1671.4 | 1663.0 | 1653.3 | 1643.4 |
| 10° | 1650.8 | 1658.4 | 1666.6 | 1674.2 | 1678.0 | 1680.5 | 1677.7 | 1670.1 | 1661.2 | 1651.0 | 1640.4 |
| 10.5° | 1648.5 | 1656.6 | 1665.3 | 1673.4 | 1677.0 | 1679.5 | 1676.7 | 1668.6 | 1659.2 | 1648.5 | 1637.6 |
| 11° | 1646.2 | 1654.6 | 1663.8 | 1672.1 | 1676.0 | 1678.5 | 1675.4 | 1667.1 | 1656.9 | 1645.7 | 1634.5 |
| 11.5° | 1643.4 | 1652.3 | 1662.2 | 1671.1 | 1674.9 | 1677.5 | 1674.2 | 1665.3 | 1654.6 | 1643.2 | 1631.2 |
| 12° | 1640.6 | 1650.0 | 1660.5 | 1669.9 | 1673.7 | 1676.2 | 1672.7 | 1663.2 | 1652.1 | 1640.1 | 1627.4 |
| 12.5° | 1637.8 | 1647.7 | 1658.4 | 1668.3 | 1672.1 | 1674.9 | 1670.9 | 1661.0 | 1649.3 | 1636.8 | 1623.8 |
| 13° | 1634.5 | 1644.9 | 1656.4 | 1666.6 | 1670.6 | 1673.4 | 1669.1 | 1658.4 | 1646.5 | 1633.3 | 1619.8 |
| 13.5° | 1631.5 | 1642.1 | 1654.1 | 1665.0 | 1668.6 | 1671.6 | 1666.8 | 1655.9 | 1643.4 | 1629.7 | 1615.7 |
| 14° | 1628.2 | 1639.1 | 1651.8 | 1663.0 | 1666.8 | 1669.6 | 1664.5 | 1653.1 | 1640.1 | 1625.9 | 1611.1 |
| 14.5° | 1624.6 | 1636.0 | 1649.3 | 1661.0 | 1664.5 | 1667.6 | 1662.2 | 1650.0 | 1636.6 | 1621.8 | 1606.8 |
| 15° | 1620.8 | 1633.0 | 1646.7 | 1658.7 | 1662.2 | 1665.3 | 1659.7 | 1646.7 | 1632.7 | 1617.2 | 1602.0 |
| 15.5° | 1616.7 | 1629.4 | 1643.7 | 1656.1 | 1659.4 | 1662.7 | 1656.9 | 1643.4 | 1628.7 | 1612.7 | 1596.9 |
| 16° | 1612.4 | 1625.9 | 1640.6 | 1653.3 | 1656.9 | 1659.9 | 1653.8 | 1639.6 | 1624.4 | 1607.8 | 1591.6 |
| 16.5° | 1608.1 | 1622.1 | 1637.3 | 1650.5 | 1653.8 | 1657.1 | 1650.3 | 1635.5 | 1619.8 | 1602.7 | 1586.2 |
| 17° | 1603.3 | 1618.0 | 1634.0 | 1647.5 | 1650.5 | 1654.1 | 1646.7 | 1631.2 | 1615.2 | 1597.4 | 1580.1 |
| 17.5° | 1598.7 | 1613.7 | 1630.2 | 1644.2 | 1647.2 | 1650.8 | 1642.9 | 1626.6 | 1610.1 | 1592.1 | 1574.3 |
| 18° | 1593.6 | 1609.4 | 1626.4 | 1640.4 | 1643.7 | 1647.2 | 1638.8 | 1621.8 | 1604.8 | 1586.0 | 1567.9 |
| 18.5° | 1588.3 | 1604.5 | 1622.1 | 1636.8 | 1639.6 | 1643.2 | 1634.3 | 1617.0 | 1599.2 | 1579.9 | 1561.6 |
| 19° | 1582.4 | 1599.7 | 1617.7 | 1632.7 | 1635.3 | 1638.8 | 1629.7 | 1611.6 | 1593.6 | 1573.5 | 1554.7 |
| 19.5° | 1576.6 | 1594.6 | 1613.2 | 1628.4 | 1631.0 | 1634.8 | 1625.1 | 1606.1 | 1587.2 | 1566.9 | 1547.3 |
| 20° | 1570.7 | 1589.0 | 1607.8 | 1623.8 | 1626.4 | 1629.9 | 1620.0 | 1600.0 | 1580.9 | 1559.8 | 1540.0 |
| 20.5° | 1564.4 | 1583.4 | 1603.0 | 1619.0 | 1621.3 | 1624.9 | 1614.4 | 1593.8 | 1574.3 | 1552.7 | 1532.6 |
| 21° | 1557.8 | 1577.6 | 1597.7 | 1614.2 | 1616.2 | 1619.5 | 1608.6 | 1587.2 | 1567.2 | 1545.0 | 1524.2 |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBL5125CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1536.4 | 1558.0 | 1579.6 | 1597.2 | 1598.7 | 1602.2 | 1589.5 | 1566.1 | 1544.5 | 1520.9 | 1498.8 |
| 23° | 1528.8 | 1551.1 | 1573.3 | 1591.1 | 1592.6 | 1595.6 | 1582.7 | 1558.3 | 1536.4 | 1512.0 | 1489.4 |
| 23.5° | 1520.6 | 1544.0 | 1566.4 | 1584.7 | 1586.0 | 1589.3 | 1575.0 | 1550.4 | 1527.5 | 1502.8 | 1480.0 |
| 24° | 1512.5 | 1536.4 | 1559.0 | 1577.8 | 1578.9 | 1582.2 | 1567.7 | 1542.0 | 1518.9 | 1493.4 | 1470.3 |
| 24.5° | 1503.9 | 1528.8 | 1552.2 | 1570.7 | 1571.5 | 1574.8 | 1559.8 | 1533.3 | 1510.0 | 1484.0 | 1460.1 |
| 25° | 1495.2 | 1520.4 | 1544.3 | 1563.3 | 1563.9 | 1567.2 | 1551.7 | 1524.5 | 1500.6 | 1473.9 | 1449.7 |
| 25.5° | 1486.1 | 1512.0 | 1536.4 | 1555.7 | 1556.0 | 1559.3 | 1543.0 | 1515.0 | 1490.6 | 1463.2 | 1439.0 |
| 26° | 1476.4 | 1503.4 | 1527.8 | 1547.8 | 1548.1 | 1551.1 | 1534.1 | 1505.4 | 1480.2 | 1452.5 | 1427.9 |
| 26.5° | 1466.7 | 1494.2 | 1519.6 | 1539.5 | 1539.2 | 1542.5 | 1524.7 | 1495.2 | 1470.1 | 1442.1 | 1416.9 |
| 27° | 1456.8 | 1485.1 | 1510.7 | 1531.1 | 1530.6 | 1533.3 | 1515.3 | 1485.1 | 1459.4 | 1430.7 | 1405.0 |
| 27.5° | 1446.7 | 1475.1 | 1501.3 | 1522.2 | 1521.4 | 1524.2 | 1505.4 | 1474.4 | 1448.4 | 1419.2 | 1393.0 |
| 28° | 1436.2 | 1465.5 | 1492.2 | 1513.0 | 1512.0 | 1514.5 | 1495.2 | 1463.7 | 1437.0 | 1407.8 | 1380.6 |
| 28.5° | 1425.1 | 1455.1 | 1482.0 | 1503.4 | 1502.1 | 1504.9 | 1484.5 | 1452.3 | 1425.3 | 1395.3 | 1368.1 |
| 29° | 1413.9 | 1444.6 | 1472.1 | 1493.7 | 1492.2 | 1494.5 | 1473.4 | 1440.6 | 1413.4 | 1382.9 | 1354.6 |
| 29.5° | 1402.2 | 1433.4 | 1461.4 | 1483.8 | 1481.7 | 1483.8 | 1462.2 | 1428.4 | 1400.9 | 1369.9 | 1340.4 |
| 30° | 1390.5 | 1422.5 | 1451.0 | 1473.1 | 1471.1 | 1472.8 | 1450.5 | 1416.2 | 1388.2 | 1356.9 | 1325.7 |
| 30.5° | 1377.8 | 1411.1 | 1439.5 | 1462.7 | 1459.9 | 1461.7 | 1438.8 | 1403.7 | 1374.7 | 1342.7 | 1310.2 |
| 31° | 1365.3 | 1399.1 | 1428.4 | 1451.5 | 1448.4 | 1450.2 | 1426.3 | 1390.2 | 1361.8 | 1328.2 | 1294.4 |
| 31.5° | 1352.6 | 1386.2 | 1416.7 | 1440.1 | 1436.5 | 1438.0 | 1413.6 | 1376.3 | 1347.3 | 1313.5 | 1277.6 |
| 32° | 1339.4 | 1374.2 | 1404.5 | 1428.1 | 1425.3 | 1426.1 | 1400.1 | 1361.8 | 1332.8 | 1298.2 | 1260.1 |
| 32.5° | 1325.4 | 1361.0 | 1392.0 | 1416.4 | 1412.6 | 1413.4 | 1385.9 | 1346.8 | 1317.8 | 1281.4 | 1241.3 |
| 33° | 1310.9 | 1347.5 | 1379.6 | 1404.2 | 1399.9 | 1400.1 | 1371.2 | 1331.5 | 1302.3 | 1263.6 | 1220.9 |
| 33.5° | 1295.2 | 1333.8 | 1366.6 | 1391.5 | 1386.7 | 1386.7 | 1356.4 | 1315.0 | 1285.2 | 1244.3 | 1198.3 |
| 34° | 1279.4 | 1319.1 | 1352.9 | 1378.8 | 1373.5 | 1372.4 | 1340.2 | 1298.0 | 1267.5 | 1223.7 | 1172.9 |
| 34.5° | 1262.1 | 1303.0 | 1338.1 | 1365.3 | 1359.5 | 1357.4 | 1324.1 | 1279.9 | 1248.1 | 1198.3 | 1144.9 |
| 35° | 1243.8 | 1286.8 | 1323.4 | 1351.6 | 1345.2 | 1342.2 | 1306.9 | 1260.6 | 1226.3 | 1171.6 | 1114.2 |
| 35.5° | 1223.2 | 1269.0 | 1307.1 | 1337.1 | 1330.5 | 1326.4 | 1288.8 | 1238.5 | 1201.1 | 1142.6 | 1080.4 |
| 36° | 1202.1 | 1250.2 | 1290.6 | 1322.1 | 1315.5 | 1310.2 | 1268.7 | 1214.1 | 1174.2 | 1109.6 | 1044.5 |
| 36.5° | 1178.0 | 1230.3 | 1272.5 | 1306.9 | 1299.0 | 1292.1 | 1247.4 | 1188.4 | 1143.4 | 1073.8 | 1007.7 |
| 37° | 1150.0 | 1207.2 | 1253.7 | 1290.1 | 1281.7 | 1272.5 | 1224.5 | 1161.7 | 1108.1 | 1036.1 | 970.0 |
| 37.5° | 1117.0 | 1181.5 | 1232.9 | 1271.5 | 1261.9 | 1250.9 | 1199.3 | 1131.5 | 1068.9 | 996.7 | 930.4 |
| 38° | 1081.4 | 1152.6 | 1209.0 | 1250.9 | 1240.5 | 1228.3 | 1172.9 | 1100.7 | 1028.5 | 955.5 | 890.0 |
| 38.5° | 1044.3 | 1119.8 | 1182.5 | 1228.3 | 1216.6 | 1203.1 | 1145.9 | 1067.4 | 987.8 | 913.9 | 848.8 |
| 39° | 1007.2 | 1083.9 | 1154.6 | 1202.9 | 1190.9 | 1177.0 | 1116.5 | 1033.8 | 950.2 | 872.2 | 807.9 |
| 39.5° | 970.5 | 1047.8 | 1124.1 | 1176.4 | 1161.5 | 1147.0 | 1085.7 | 996.5 | 913.6 | 831.8 | 766.9 |
| 40° | 933.9 | 1012.7 | 1091.3 | 1146.5 | 1128.2 | 1116.7 | 1052.1 | 959.4 | 876.7 | 792.3 | 725.7 |
| 40.5° | 895.6 | 978.9 | 1055.7 | 1114.2 | 1088.2 | 1083.2 | 1018.6 | 919.7 | 838.4 | 752.7 | 685.3 |
| 41° | 857.4 | 943.3 | 1018.3 | 1079.3 | 1047.3 | 1049.9 | 983.8 | 880.3 | 798.4 | 712.0 | 645.4 |
| 41.5° | 819.0 | 907.0 | 980.2 | 1042.2 | 1005.4 | 1013.8 | 948.4 | 840.6 | 759.0 | 671.6 | 607.0 |
| 42° | 780.7 | 868.9 | 941.8 | 1002.3 | 966.0 | 975.6 | 911.8 | 802.8 | 719.9 | 634.0 | 567.9 |
| 42.5° | 742.5 | 828.7 | 902.4 | 960.9 | 929.6 | 936.0 | 872.4 | 762.9 | 681.8 | 596.4 | 530.3 |
| 43° | 705.7 | 788.8 | 861.5 | 917.9 | 892.8 | 896.8 | 831.2 | 723.7 | 645.2 | 560.8 | 495.4 |
| 43.5° | 669.1 | 749.4 | 821.6 | 876.2 | 854.1 | 856.9 | 790.6 | 684.3 | 609.3 | 526.5 | 461.1 |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBL51525CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 559.5 | 633.7 | 698.8 | 749.1 | 733.9 | 740.0 | 666.0 | 570.2 | 500.5 | 430.1 | 371.9 |
| 45.5° | 524.4 | 595.6 | 657.4 | 709.7 | 695.0 | 701.3 | 623.8 | 533.1 | 466.2 | 399.4 | 345.5 |
| 46° | 489.8 | 557.7 | 615.7 | 668.8 | 657.6 | 662.2 | 586.2 | 496.7 | 432.9 | 371.1 | 322.1 |
| 46.5° | 456.5 | 520.6 | 576.3 | 630.9 | 620.8 | 623.1 | 546.3 | 461.1 | 401.6 | 342.7 | 300.0 |
| 47° | 424.0 | 484.5 | 537.1 | 593.3 | 583.9 | 584.7 | 509.7 | 427.6 | 372.4 | 317.5 | 279.9 |
| 47.5° | 391.5 | 448.9 | 502.0 | 557.5 | 546.5 | 546.5 | 474.3 | 394.8 | 343.7 | 294.4 | 261.3 |
| 48° | 362.7 | 415.9 | 467.5 | 522.6 | 509.7 | 509.9 | 441.0 | 364.0 | 316.7 | 273.3 | 244.8 |
| 48.5° | 335.3 | 384.4 | 434.4 | 489.8 | 474.3 | 474.1 | 407.2 | 334.5 | 291.6 | 253.4 | 232.1 |
| 49° | 310.4 | 354.6 | 404.2 | 456.5 | 440.8 | 438.5 | 376.5 | 307.8 | 268.7 | 239.2 | 219.1 |
| 49.5° | 287.8 | 328.7 | 375.7 | 425.3 | 409.3 | 404.7 | 347.7 | 283.7 | 248.4 | 225.0 | 206.2 |
| 50° | 269.5 | 304.0 | 349.5 | 394.5 | 379.0 | 371.6 | 321.1 | 262.1 | 234.4 | 210.7 | 193.2 |
| 50.5° | 252.9 | 282.7 | 324.4 | 365.0 | 349.8 | 341.9 | 294.9 | 243.0 | 220.4 | 196.5 | 180.2 |
| 51° | 237.9 | 263.6 | 301.7 | 337.8 | 320.5 | 313.7 | 272.3 | 228.5 | 206.4 | 182.5 | 172.1 |
| 51.5° | 224.2 | 247.6 | 280.9 | 312.7 | 295.6 | 289.5 | 251.4 | 213.8 | 192.4 | 173.9 | 164.5 |
| 52° | 212.3 | 232.6 | 261.8 | 289.3 | 271.7 | 266.9 | 236.7 | 199.0 | 178.7 | 166.2 | 157.1 |
| 52.5° | 200.8 | 219.6 | 245.1 | 268.2 | 250.4 | 246.8 | 221.9 | 184.6 | 170.6 | 158.9 | 149.5 |
| 53° | 189.9 | 207.4 | 229.0 | 249.4 | 236.2 | 231.6 | 207.4 | 175.1 | 162.9 | 151.3 | 142.4 |
| 53.5° | 180.0 | 196.2 | 214.8 | 232.3 | 222.2 | 216.6 | 192.7 | 167.3 | 155.3 | 143.9 | 135.5 |
| 54° | 172.3 | 185.6 | 201.3 | 216.3 | 207.9 | 201.3 | 178.2 | 159.6 | 147.9 | 136.8 | 129.1 |
| 54.5° | 164.7 | 176.9 | 189.6 | 202.6 | 193.7 | 186.3 | 169.8 | 151.8 | 140.6 | 130.2 | 123.0 |
| 55° | 156.8 | 168.8 | 179.5 | 189.9 | 179.7 | 176.9 | 161.9 | 144.1 | 133.5 | 123.8 | 117.2 |
| 55.5° | 149.5 | 161.2 | 171.3 | 179.5 | 171.1 | 169.0 | 154.0 | 137.0 | 126.8 | 117.9 | 112.1 |
| 56° | 142.4 | 153.5 | 163.2 | 171.1 | 163.5 | 160.9 | 146.2 | 129.9 | 121.0 | 112.6 | 107.0 |
| 56.5° | 135.5 | 146.2 | 155.8 | 163.2 | 155.3 | 153.0 | 138.8 | 123.5 | 115.4 | 107.5 | 102.4 |
| 57° | 128.9 | 139.0 | 147.9 | 155.3 | 147.4 | 145.4 | 131.9 | 117.7 | 109.8 | 103.0 | 98.1 |
| 57.5° | 123.0 | 132.2 | 140.8 | 147.7 | 140.1 | 137.8 | 125.3 | 112.4 | 105.0 | 98.6 | 94.1 |
| 58° | 117.2 | 125.8 | 133.7 | 140.1 | 132.9 | 130.9 | 119.2 | 107.0 | 100.4 | 94.3 | 90.2 |
| 58.5° | 112.1 | 120.0 | 127.4 | 133.2 | 126.3 | 124.6 | 113.6 | 102.2 | 96.1 | 90.5 | 86.4 |
| 59° | 107.0 | 114.6 | 121.3 | 126.6 | 120.2 | 118.5 | 108.3 | 97.6 | 92.0 | 86.7 | 82.9 |
| 59.5° | 102.7 | 109.6 | 115.7 | 120.5 | 114.4 | 112.9 | 103.2 | 93.5 | 88.0 | 83.1 | 79.6 |
| 60° | 98.1 | 104.7 | 110.3 | 114.9 | 109.1 | 107.5 | 98.6 | 89.7 | 84.1 | 79.8 | 76.5 |
| 60.5° | 93.8 | 100.2 | 105.5 | 109.6 | 104.2 | 102.7 | 94.6 | 85.9 | 80.8 | 76.5 | 73.5 |
| 61° | 90.2 | 96.1 | 100.9 | 104.5 | 99.6 | 98.1 | 90.5 | 82.4 | 77.3 | 73.5 | 70.7 |
| 61.5° | 86.7 | 91.8 | 96.6 | 99.9 | 95.3 | 94.1 | 86.7 | 79.1 | 74.0 | 70.7 | 67.9 |
| 62° | 83.1 | 88.5 | 92.5 | 95.6 | 91.3 | 89.7 | 83.1 | 75.8 | 70.9 | 67.6 | 65.3 |
| 62.5° | 79.6 | 84.9 | 89.2 | 91.3 | 87.4 | 86.2 | 79.6 | 72.7 | 68.1 | 65.1 | 62.8 |
| 63° | 76.0 | 81.6 | 85.7 | 88.0 | 83.6 | 82.4 | 76.5 | 69.9 | 65.3 | 62.5 | 60.2 |
| 63.5° | 73.0 | 78.0 | 82.4 | 84.4 | 80.3 | 79.1 | 73.5 | 67.1 | 62.8 | 60.0 | 58.0 |
| 64° | 69.9 | 74.7 | 78.8 | 81.1 | 77.0 | 76.0 | 70.4 | 64.3 | 60.0 | 57.4 | 55.7 |
| 64.5° | 67.1 | 71.7 | 75.2 | 77.8 | 74.0 | 73.0 | 67.9 | 61.8 | 57.7 | 55.4 | 53.4 |
| 65° | 64.3 | 68.6 | 72.4 | 74.5 | 71.2 | 70.2 | 65.1 | 59.2 | 55.4 | 52.9 | 51.3 |
| 65.5° | 61.5 | 66.1 | 69.4 | 71.7 | 68.1 | 67.4 | 62.5 | 56.9 | 53.1 | 50.8 | 49.3 |
| 66° | 59.2 | 63.3 | 66.9 | 68.9 | 65.6 | 64.8 | 60.0 | 54.7 | 50.8 | 48.8 | 47.3 |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBL5125CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 52.1 | 55.9 | 59.2 | 61.0 | 58.2 | 57.4 | 53.4 | 48.3 | 44.7 | 43.0 | 41.7 |
| 68° | 49.8 | 53.6 | 56.9 | 58.7 | 55.9 | 55.2 | 51.3 | 46.3 | 43.0 | 41.2 | 39.9 |
| 68.5° | 47.8 | 51.3 | 54.7 | 56.4 | 53.6 | 52.9 | 49.1 | 44.2 | 41.2 | 39.4 | 38.4 |
| 69° | 45.8 | 49.3 | 52.4 | 54.1 | 51.6 | 50.8 | 47.3 | 42.5 | 39.4 | 37.6 | 36.6 |
| 69.5° | 44.0 | 47.3 | 50.3 | 51.9 | 49.6 | 48.8 | 45.2 | 40.7 | 37.6 | 36.1 | 35.1 |
| 70° | 41.9 | 45.2 | 48.3 | 49.8 | 47.5 | 46.8 | 43.5 | 38.9 | 36.1 | 34.3 | 33.6 |
| 70.5° | 40.2 | 43.5 | 46.3 | 47.8 | 45.5 | 45.0 | 41.7 | 37.1 | 34.3 | 32.8 | 32.0 |
| 71° | 38.4 | 41.4 | 44.5 | 46.0 | 43.7 | 43.2 | 39.9 | 35.6 | 32.8 | 31.3 | 30.5 |
| 71.5° | 36.6 | 39.7 | 42.7 | 44.0 | 41.9 | 41.4 | 38.4 | 34.1 | 31.3 | 29.7 | 29.0 |
| 72° | 35.1 | 38.1 | 40.9 | 42.2 | 40.2 | 39.7 | 36.6 | 32.5 | 29.7 | 28.2 | 27.7 |
| 72.5° | 33.6 | 36.4 | 39.1 | 40.4 | 38.6 | 37.9 | 35.1 | 31.0 | 28.5 | 26.9 | 26.2 |
| 73° | 32.0 | 34.8 | 37.4 | 38.9 | 36.9 | 36.4 | 33.6 | 29.5 | 26.9 | 25.7 | 24.9 |
| 73.5° | 30.5 | 33.0 | 35.8 | 37.1 | 35.3 | 34.8 | 32.0 | 28.2 | 25.7 | 24.1 | 23.6 |
| 74° | 29.0 | 31.5 | 34.3 | 35.6 | 33.8 | 33.3 | 30.5 | 26.7 | 24.4 | 22.9 | 22.4 |
| 74.5° | 27.5 | 30.0 | 32.5 | 34.1 | 32.3 | 31.8 | 29.2 | 25.4 | 23.1 | 21.6 | 21.4 |
| 75° | 26.2 | 28.7 | 31.3 | 32.5 | 30.8 | 30.3 | 27.7 | 24.1 | 21.9 | 20.6 | 20.1 |
| 75.5° | 24.7 | 27.2 | 29.7 | 31.0 | 29.5 | 29.0 | 26.4 | 22.9 | 20.6 | 19.3 | 18.8 |
| 76° | 23.4 | 25.7 | 28.2 | 29.7 | 28.0 | 27.7 | 25.2 | 21.6 | 19.3 | 18.0 | 17.8 |
| 76.5° | 22.1 | 24.4 | 26.9 | 28.2 | 26.7 | 26.2 | 23.9 | 20.3 | 18.3 | 17.0 | 16.5 |
| 77° | 20.8 | 23.1 | 25.4 | 26.9 | 25.4 | 24.9 | 22.6 | 19.3 | 17.0 | 15.8 | 15.5 |
| 77.5° | 19.6 | 21.9 | 24.1 | 25.4 | 24.1 | 23.6 | 21.4 | 18.0 | 16.0 | 14.7 | 14.2 |
| 78° | 18.6 | 20.6 | 22.9 | 24.1 | 22.9 | 22.4 | 20.1 | 16.8 | 14.7 | 13.7 | 13.2 |
| 78.5° | 17.3 | 19.3 | 21.6 | 23.1 | 21.6 | 21.4 | 19.1 | 15.8 | 13.7 | 12.7 | 12.2 |
| 79° | 16.3 | 18.3 | 20.6 | 21.9 | 20.3 | 20.1 | 17.8 | 14.7 | 12.7 | 11.7 | 11.4 |
| 79.5° | 15.0 | 17.0 | 19.3 | 20.6 | 19.3 | 19.1 | 16.5 | 13.7 | 11.9 | 10.7 | 10.4 |
| 80° | 14.0 | 16.0 | 18.0 | 19.3 | 18.0 | 17.8 | 15.5 | 12.7 | 10.9 | 9.7 | 9.4 |
| 80.5° | 13.0 | 14.7 | 17.0 | 18.3 | 17.0 | 16.5 | 14.5 | 11.7 | 9.9 | 8.9 | 8.6 |
| 81° | 11.9 | 13.7 | 15.8 | 17.0 | 16.0 | 15.8 | 13.5 | 10.7 | 9.2 | 7.9 | 7.6 |
| 81.5° | 10.9 | 12.7 | 14.7 | 16.0 | 14.7 | 14.5 | 12.5 | 9.7 | 8.1 | 7.1 | 6.9 |
| 82° | 10.2 | 11.7 | 13.7 | 15.0 | 13.7 | 13.5 | 11.7 | 8.9 | 7.4 | 6.4 | 6.1 |
| 82.5° | 9.2 | 10.7 | 12.7 | 14.0 | 13.0 | 12.7 | 10.7 | 7.9 | 6.6 | 5.6 | 5.3 |
| 83° | 8.4 | 9.9 | 11.7 | 13.0 | 11.9 | 11.7 | 9.7 | 7.1 | 5.8 | 4.8 | 4.6 |
| 83.5° | 7.4 | 8.9 | 10.9 | 11.9 | 10.9 | 10.7 | 8.9 | 6.4 | 5.1 | 4.1 | 4.1 |
| 84° | 6.6 | 8.1 | 9.9 | 11.2 | 10.2 | 9.9 | 8.1 | 5.6 | 4.3 | 3.3 | 3.3 |
| 84.5° | 5.8 | 7.1 | 9.2 | 10.2 | 9.2 | 8.9 | 7.4 | 4.8 | 3.6 | 2.5 | 2.8 |
| 85° | 5.1 | 6.4 | 8.1 | 9.4 | 8.4 | 8.1 | 6.4 | 4.1 | 3.1 | 2.0 | 2.0 |
| 85.5° | 4.3 | 5.6 | 7.4 | 8.6 | 7.6 | 7.4 | 5.6 | 3.3 | 2.3 | 1.5 | 1.5 |
| 86° | 3.6 | 4.8 | 6.4 | 7.6 | 6.9 | 6.6 | 5.1 | 2.8 | 1.8 | 1.3 | 1.0 |
| 86.5° | 2.8 | 4.1 | 5.6 | 6.9 | 6.1 | 5.8 | 4.3 | 2.3 | 1.3 | 0.8 | 0.5 |
| 87° | 2.3 | 3.3 | 5.1 | 6.1 | 5.3 | 5.1 | 3.6 | 1.8 | 1.0 | 0.5 | 0.0 |
| 87.5° | 1.8 | 2.5 | 4.3 | 5.3 | 4.6 | 4.3 | 3.1 | 1.3 | 0.5 | 0.3 | 0.0 |
| 88° | 1.3 | 2.0 | 3.6 | 4.6 | 3.8 | 3.8 | 2.5 | 1.0 | 0.3 | 0.0 | 0.0 |
| 88.5° | 0.8 | 1.5 | 3.1 | 3.8 | 3.3 | 3.1 | 1.8 | 0.5 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBL51525CSD-HCD8TRMW-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 | 1.3 | 2.0 | 1.3 | 1.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBLS1525CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 | 1673.9 |
| 0.5° | 1671.9 | 1673.2 | 1673.4 | 1674.4 | 1674.2 | 1673.2 |
| 1° | 1670.9 | 1671.9 | 1672.1 | 1673.4 | 1673.4 | 1672.9 |
| 1.5° | 1669.6 | 1670.4 | 1670.9 | 1672.1 | 1672.4 | 1672.4 |
| 2° | 1668.3 | 1669.1 | 1669.3 | 1670.9 | 1671.6 | 1671.9 |
| 2.5° | 1666.8 | 1667.6 | 1667.8 | 1669.6 | 1670.6 | 1671.4 |
| 3° | 1665.5 | 1666.0 | 1666.3 | 1668.1 | 1669.3 | 1670.6 |
| 3.5° | 1663.8 | 1664.3 | 1664.5 | 1666.8 | 1668.3 | 1669.6 |
| 4° | 1662.2 | 1662.5 | 1663.0 | 1665.3 | 1667.3 | 1668.8 |
| 4.5° | 1660.5 | 1660.7 | 1661.0 | 1663.8 | 1666.0 | 1668.1 |
| 5° | 1658.4 | 1658.7 | 1658.9 | 1662.0 | 1664.8 | 1666.8 |
| 5.5° | 1656.4 | 1656.6 | 1656.9 | 1660.5 | 1663.2 | 1665.8 |
| 6° | 1654.1 | 1654.1 | 1654.6 | 1658.4 | 1661.7 | 1664.5 |
| 6.5° | 1651.8 | 1652.1 | 1652.3 | 1656.4 | 1659.9 | 1663.2 |
| 7° | 1649.3 | 1649.5 | 1650.0 | 1654.3 | 1658.4 | 1662.0 |
| 7.5° | 1646.7 | 1647.0 | 1647.2 | 1652.3 | 1656.6 | 1660.5 |
| 8° | 1644.2 | 1643.9 | 1644.7 | 1649.8 | 1654.6 | 1658.7 |
| 8.5° | 1641.1 | 1641.1 | 1641.9 | 1647.5 | 1652.6 | 1656.9 |
| 9° | 1638.3 | 1638.1 | 1638.8 | 1644.9 | 1650.5 | 1655.1 |
| 9.5° | 1635.0 | 1635.3 | 1635.5 | 1641.9 | 1648.2 | 1653.1 |
| 10° | 1631.7 | 1631.7 | 1632.5 | 1639.1 | 1645.7 | 1650.8 |
| 10.5° | 1628.4 | 1628.2 | 1628.9 | 1636.0 | 1643.2 | 1648.5 |
| 11° | 1624.6 | 1624.6 | 1625.4 | 1633.0 | 1640.4 | 1646.2 |
| 11.5° | 1620.8 | 1620.8 | 1621.3 | 1629.7 | 1637.6 | 1643.4 |
| 12° | 1616.7 | 1616.7 | 1617.5 | 1626.1 | 1634.5 | 1640.6 |
| 12.5° | 1612.7 | 1612.4 | 1613.2 | 1622.3 | 1631.0 | 1637.8 |
| 13° | 1608.3 | 1608.1 | 1608.6 | 1618.3 | 1627.7 | 1634.5 |
| 13.5° | 1603.8 | 1603.5 | 1604.3 | 1614.2 | 1624.1 | 1631.5 |
| 14° | 1598.9 | 1598.7 | 1599.4 | 1609.9 | 1620.3 | 1628.2 |
| 14.5° | 1593.8 | 1593.8 | 1594.4 | 1605.3 | 1616.2 | 1624.6 |
| 15° | 1588.8 | 1588.5 | 1589.3 | 1600.5 | 1611.9 | 1620.8 |
| 15.5° | 1583.4 | 1582.9 | 1583.7 | 1595.1 | 1607.6 | 1616.7 |
| 16° | 1577.6 | 1577.6 | 1577.8 | 1589.8 | 1602.7 | 1612.4 |
| 16.5° | 1571.7 | 1571.7 | 1572.0 | 1584.2 | 1597.9 | 1608.1 |
| 17° | 1565.4 | 1565.6 | 1565.9 | 1578.3 | 1592.6 | 1603.3 |
| 17.5° | 1559.3 | 1559.3 | 1559.3 | 1572.5 | 1587.2 | 1598.7 |
| 18° | 1552.4 | 1552.9 | 1552.7 | 1565.9 | 1581.4 | 1593.6 |
| 18.5° | 1545.6 | 1545.8 | 1545.6 | 1559.3 | 1575.5 | 1588.3 |
| 19° | 1538.4 | 1538.7 | 1538.4 | 1552.2 | 1569.2 | 1582.4 |
| 19.5° | 1530.8 | 1531.8 | 1531.1 | 1545.3 | 1562.6 | 1576.6 |
| 20° | 1523.2 | 1524.2 | 1522.9 | 1537.4 | 1555.7 | 1570.7 |
| 20.5° | 1515.3 | 1516.1 | 1515.0 | 1530.0 | 1548.9 | 1564.4 |
| 21° | 1506.9 | 1507.9 | 1506.7 | 1521.9 | 1541.7 | 1557.8 |

TEST NUMBER: P776198

CATALOG NUMBER: HCDJBL51525CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1480.5 | 1481.5 | 1480.0 | 1496.0 | 1518.1 | 1536.4 |
| 23° | 1470.8 | 1472.3 | 1470.3 | 1487.1 | 1509.5 | 1528.8 |
| 23.5° | 1460.9 | 1462.7 | 1460.9 | 1477.4 | 1500.8 | 1520.6 |
| 24° | 1450.7 | 1452.8 | 1450.7 | 1467.8 | 1491.7 | 1512.5 |
| 24.5° | 1440.6 | 1442.6 | 1440.3 | 1458.1 | 1482.5 | 1503.9 |
| 25° | 1429.6 | 1431.9 | 1429.6 | 1447.4 | 1472.8 | 1495.2 |
| 25.5° | 1418.7 | 1421.2 | 1418.7 | 1437.0 | 1463.2 | 1486.1 |
| 26° | 1407.0 | 1410.1 | 1407.8 | 1426.1 | 1453.0 | 1476.4 |
| 26.5° | 1395.8 | 1398.9 | 1396.1 | 1415.1 | 1442.9 | 1466.7 |
| 27° | 1383.6 | 1386.9 | 1384.1 | 1403.7 | 1431.9 | 1456.8 |
| 27.5° | 1371.4 | 1374.7 | 1372.2 | 1392.0 | 1421.0 | 1446.7 |
| 28° | 1358.7 | 1362.3 | 1359.5 | 1379.8 | 1409.8 | 1436.2 |
| 28.5° | 1345.2 | 1349.8 | 1347.0 | 1367.6 | 1398.4 | 1425.1 |
| 29° | 1330.5 | 1336.3 | 1333.8 | 1355.2 | 1386.4 | 1413.9 |
| 29.5° | 1315.2 | 1322.6 | 1320.1 | 1342.4 | 1374.0 | 1402.2 |
| 30° | 1299.7 | 1308.1 | 1305.3 | 1329.5 | 1361.8 | 1390.5 |
| 30.5° | 1283.2 | 1292.4 | 1289.8 | 1315.8 | 1349.1 | 1377.8 |
| 31° | 1265.9 | 1276.1 | 1273.0 | 1301.0 | 1336.1 | 1365.3 |
| 31.5° | 1247.6 | 1258.3 | 1256.3 | 1285.8 | 1322.6 | 1352.6 |
| 32° | 1227.8 | 1239.5 | 1238.5 | 1269.2 | 1307.9 | 1339.4 |
| 32.5° | 1207.0 | 1219.4 | 1219.9 | 1252.2 | 1292.9 | 1325.4 |
| 33° | 1184.3 | 1197.5 | 1200.1 | 1233.9 | 1276.9 | 1310.9 |
| 33.5° | 1157.9 | 1174.4 | 1178.0 | 1214.8 | 1260.1 | 1295.2 |
| 34° | 1127.9 | 1147.5 | 1153.3 | 1194.0 | 1242.5 | 1279.4 |
| 34.5° | 1094.3 | 1116.5 | 1123.1 | 1170.9 | 1223.5 | 1262.1 |
| 35° | 1059.5 | 1081.4 | 1088.5 | 1144.2 | 1203.4 | 1243.8 |
| 35.5° | 1023.4 | 1045.0 | 1051.4 | 1113.9 | 1181.0 | 1223.2 |
| 36° | 986.3 | 1010.2 | 1012.0 | 1081.1 | 1154.8 | 1202.1 |
| 36.5° | 950.7 | 976.6 | 972.1 | 1045.5 | 1125.4 | 1178.0 |
| 37° | 915.1 | 941.6 | 932.9 | 1008.9 | 1092.3 | 1150.0 |
| 37.5° | 879.0 | 902.9 | 895.3 | 969.3 | 1056.0 | 1117.0 |
| 38° | 841.9 | 862.8 | 858.7 | 928.3 | 1018.3 | 1081.4 |
| 38.5° | 801.8 | 822.1 | 819.8 | 887.9 | 979.7 | 1044.3 |
| 39° | 762.1 | 783.2 | 781.4 | 847.3 | 940.8 | 1007.2 |
| 39.5° | 721.4 | 746.3 | 742.5 | 807.1 | 900.1 | 970.5 |
| 40° | 682.3 | 710.2 | 704.6 | 765.1 | 860.5 | 933.9 |
| 40.5° | 642.4 | 674.7 | 666.8 | 724.2 | 820.6 | 895.6 |
| 41° | 603.7 | 637.5 | 630.9 | 684.1 | 781.7 | 857.4 |
| 41.5° | 566.1 | 600.2 | 595.3 | 647.5 | 744.1 | 819.0 |
| 42° | 528.5 | 563.1 | 559.5 | 610.1 | 705.9 | 780.7 |
| 42.5° | 491.1 | 527.7 | 525.2 | 574.8 | 666.0 | 742.5 |
| 43° | 455.3 | 494.2 | 492.1 | 540.7 | 628.6 | 705.7 |
| 43.5° | 422.5 | 460.4 | 459.6 | 508.2 | 592.3 | 669.1 |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBLS1525CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 337.3 | 364.5 | 373.2 | 419.7 | 489.6 | 559.5 |
| 45.5° | 313.4 | 335.8 | 347.7 | 393.5 | 458.6 | 524.4 |
| 46° | 291.6 | 310.1 | 324.1 | 368.8 | 428.8 | 489.8 |
| 46.5° | 272.5 | 288.3 | 302.2 | 345.7 | 401.6 | 456.5 |
| 47° | 255.7 | 269.5 | 282.2 | 323.9 | 374.9 | 424.0 |
| 47.5° | 240.2 | 252.9 | 264.1 | 303.0 | 350.5 | 391.5 |
| 48° | 228.3 | 238.7 | 247.8 | 283.7 | 327.4 | 362.7 |
| 48.5° | 216.6 | 226.0 | 233.4 | 266.1 | 306.6 | 335.3 |
| 49° | 204.6 | 214.3 | 219.6 | 249.6 | 286.7 | 310.4 |
| 49.5° | 192.7 | 202.6 | 207.2 | 234.4 | 268.2 | 287.8 |
| 50° | 181.0 | 191.7 | 195.5 | 219.6 | 251.4 | 269.5 |
| 50.5° | 173.1 | 182.0 | 185.1 | 206.4 | 235.9 | 252.9 |
| 51° | 165.5 | 173.9 | 176.2 | 194.2 | 221.7 | 237.9 |
| 51.5° | 158.1 | 166.5 | 168.5 | 183.3 | 208.2 | 224.2 |
| 52° | 150.7 | 159.1 | 161.2 | 174.6 | 196.0 | 212.3 |
| 52.5° | 143.6 | 151.8 | 153.8 | 167.3 | 185.3 | 200.8 |
| 53° | 136.8 | 144.4 | 146.4 | 159.6 | 176.4 | 189.9 |
| 53.5° | 130.2 | 137.8 | 139.3 | 152.0 | 168.8 | 180.0 |
| 54° | 124.3 | 131.2 | 132.7 | 144.6 | 160.9 | 172.3 |
| 54.5° | 118.7 | 125.1 | 126.8 | 137.8 | 153.3 | 164.7 |
| 55° | 113.4 | 119.5 | 121.0 | 131.2 | 145.9 | 156.8 |
| 55.5° | 108.5 | 114.1 | 115.7 | 125.3 | 139.0 | 149.5 |
| 56° | 103.7 | 109.1 | 110.3 | 119.5 | 132.4 | 142.4 |
| 56.5° | 99.4 | 104.5 | 105.7 | 114.1 | 126.3 | 135.5 |
| 57° | 95.3 | 99.9 | 101.2 | 109.3 | 120.5 | 128.9 |
| 57.5° | 91.5 | 95.8 | 96.9 | 104.5 | 115.2 | 123.0 |
| 58° | 87.4 | 91.8 | 93.0 | 100.2 | 110.1 | 117.2 |
| 58.5° | 84.1 | 88.2 | 89.7 | 95.8 | 105.2 | 112.1 |
| 59° | 80.6 | 84.9 | 86.2 | 91.8 | 100.7 | 107.0 |
| 59.5° | 77.5 | 81.6 | 82.9 | 88.5 | 96.6 | 102.7 |
| 60° | 74.5 | 78.3 | 79.6 | 85.2 | 92.5 | 98.1 |
| 60.5° | 71.4 | 75.2 | 76.0 | 81.9 | 89.2 | 93.8 |
| 61° | 68.6 | 72.2 | 73.0 | 78.5 | 85.9 | 90.2 |
| 61.5° | 66.1 | 69.4 | 70.2 | 75.2 | 82.4 | 86.7 |
| 62° | 63.6 | 66.9 | 67.6 | 72.4 | 79.1 | 83.1 |
| 62.5° | 61.0 | 64.1 | 64.8 | 69.7 | 75.8 | 79.6 |
| 63° | 58.5 | 61.5 | 62.3 | 66.9 | 72.7 | 76.0 |
| 63.5° | 56.2 | 59.2 | 60.0 | 64.1 | 69.9 | 73.0 |
| 64° | 54.1 | 56.9 | 57.4 | 61.8 | 66.9 | 69.9 |
| 64.5° | 51.9 | 54.7 | 55.4 | 59.2 | 64.3 | 67.1 |
| 65° | 49.8 | 52.6 | 53.1 | 56.9 | 61.8 | 64.3 |
| 65.5° | 47.8 | 50.3 | 51.1 | 54.7 | 59.2 | 61.5 |
| 66° | 46.0 | 48.3 | 48.8 | 52.6 | 56.9 | 59.2 |



TEST NUMBER: P776198

CATALOG NUMBER: HCDJBLS1525CSD-HCD8TRMW-2500lm-4000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 40.4 | 42.7 | 43.2 | 46.5 | 50.1 | 52.1 |
| 68° | 38.9 | 40.9 | 41.4 | 44.5 | 48.0 | 49.8 |
| 68.5° | 37.1 | 39.1 | 39.7 | 42.7 | 46.0 | 47.8 |
| 69° | 35.6 | 37.6 | 38.1 | 40.9 | 44.0 | 45.8 |
| 69.5° | 34.1 | 35.8 | 36.4 | 39.1 | 42.2 | 44.0 |
| 70° | 32.5 | 34.3 | 34.8 | 37.6 | 40.4 | 41.9 |
| 70.5° | 31.0 | 32.8 | 33.3 | 35.8 | 38.6 | 40.2 |
| 71° | 29.5 | 31.3 | 31.8 | 34.3 | 36.9 | 38.4 |
| 71.5° | 28.2 | 30.0 | 30.3 | 32.8 | 35.3 | 36.6 |
| 72° | 26.9 | 28.5 | 28.7 | 31.3 | 33.6 | 35.1 |
| 72.5° | 25.4 | 27.2 | 27.5 | 29.7 | 32.0 | 33.6 |
| 73° | 24.1 | 25.7 | 26.2 | 28.5 | 30.5 | 32.0 |
| 73.5° | 23.1 | 24.4 | 24.7 | 26.9 | 29.0 | 30.5 |
| 74° | 21.6 | 23.1 | 23.4 | 25.7 | 27.7 | 29.0 |
| 74.5° | 20.6 | 21.9 | 22.1 | 24.1 | 26.2 | 27.5 |
| 75° | 19.3 | 20.6 | 21.1 | 22.9 | 24.9 | 26.2 |
| 75.5° | 18.3 | 19.6 | 19.8 | 21.6 | 23.4 | 24.7 |
| 76° | 17.0 | 18.3 | 18.6 | 20.6 | 22.4 | 23.4 |
| 76.5° | 16.0 | 17.3 | 17.5 | 19.3 | 21.1 | 22.1 |
| 77° | 15.0 | 16.0 | 16.3 | 18.0 | 19.8 | 20.8 |
| 77.5° | 13.7 | 15.0 | 15.3 | 17.0 | 18.6 | 19.6 |
| 78° | 13.0 | 14.0 | 14.2 | 15.8 | 17.3 | 18.6 |
| 78.5° | 11.9 | 13.0 | 13.2 | 14.7 | 16.3 | 17.3 |
| 79° | 10.9 | 11.9 | 12.2 | 13.7 | 15.0 | 16.3 |
| 79.5° | 10.2 | 11.2 | 11.2 | 12.7 | 14.0 | 15.0 |
| 80° | 9.2 | 10.2 | 10.4 | 11.7 | 13.0 | 14.0 |
| 80.5° | 8.4 | 9.4 | 9.4 | 10.7 | 11.9 | 13.0 |
| 81° | 7.4 | 8.4 | 8.6 | 9.9 | 10.9 | 11.9 |
| 81.5° | 6.6 | 7.6 | 7.9 | 8.9 | 9.9 | 10.9 |
| 82° | 5.8 | 6.9 | 7.1 | 8.1 | 9.2 | 10.2 |
| 82.5° | 5.1 | 6.1 | 6.4 | 7.4 | 8.1 | 9.2 |
| 83° | 4.3 | 5.3 | 5.3 | 6.4 | 7.4 | 8.4 |
| 83.5° | 3.8 | 4.6 | 4.6 | 5.6 | 6.4 | 7.4 |
| 84° | 3.1 | 3.8 | 4.1 | 4.8 | 5.6 | 6.6 |
| 84.5° | 2.3 | 3.1 | 3.3 | 4.3 | 4.8 | 5.8 |
| 85° | 1.8 | 2.5 | 2.5 | 3.6 | 4.1 | 5.1 |
| 85.5° | 1.0 | 1.8 | 2.0 | 2.8 | 3.3 | 4.3 |
| 86° | 0.5 | 1.3 | 1.3 | 2.3 | 2.8 | 3.6 |
| 86.5° | 0.0 | 0.5 | 0.5 | 1.5 | 2.3 | 2.8 |
| 87° | 0.0 | 0.0 | 0.0 | 1.0 | 1.8 | 2.3 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.5 | 1.3 | 1.8 |
| 88° | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 1.3 |
| 88.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.8 |



TEST NUMBER: P776198
CATALOG NUMBER: HCDJBL51525CSD-HCD8TRMW-2500lm-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 |

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

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

Scaled Data Report





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

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

Scaled Data Report



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

Scaled Data Report





| | | | | | | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 21.5° | 1550.9 | 1571.2 | 1591.8 | 1608.8 | 1610.6 | 1613.9 | 1602.5 | 1580.6 | 1559.8 | 1537.4 | 1516.1 |
| 22° | 1543.5 | 1564.9 | 1585.7 | 1603.3 | 1604.8 | 1608.3 | 1596.1 | 1573.3 | 1552.4 | 1529.0 | 1507.7 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44° | 632.5 | 710.5 | 781.4 | 833.3 | 814.2 | 818.3 | 749.6 | 646.7 | 573.2 | 494.7 | 429.6 |
| 44.5° | 595.3 | 672.1 | 740.7 | 792.6 | 773.5 | 779.9 | 707.7 | 607.8 | 536.9 | 461.1 | 399.9 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 66.5° | 56.7 | 60.8 | 64.3 | 66.1 | 63.0 | 62.0 | 57.7 | 52.4 | 48.8 | 46.8 | 45.5 |
| 67° | 54.4 | 58.2 | 61.5 | 63.6 | 60.5 | 59.7 | 55.4 | 50.3 | 46.8 | 44.7 | 43.5 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89° | 0.3 | 1.3 | 2.3 | 3.3 | 2.5 | 2.5 | 1.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.8 | 1.8 | 2.5 | 2.0 | 1.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|
| 21.5° | 1498.5 | 1499.3 | 1498.0 | 1513.3 | 1534.1 | 1550.9 |
| 22° | 1489.4 | 1490.6 | 1489.1 | 1505.1 | 1526.0 | 1543.5 |



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 44° | 392.5 | 427.6 | 429.1 | 476.6 | 556.2 | 632.5 |
| 44.5° | 363.8 | 395.0 | 399.6 | 447.9 | 522.1 | 595.3 |



| | | | | | | |
|-------|------|------|------|------|------|------|
| 66.5° | 44.0 | 46.5 | 47.0 | 50.3 | 54.4 | 56.7 |
| 67° | 42.2 | 44.5 | 45.0 | 48.6 | 52.4 | 54.4 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)