

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P198775

Luminaire Tested: **XNV2-AF-02-LED-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198775
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV2-AF-02-LED-U-T3
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12339.9 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 111
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: 28.75 FT

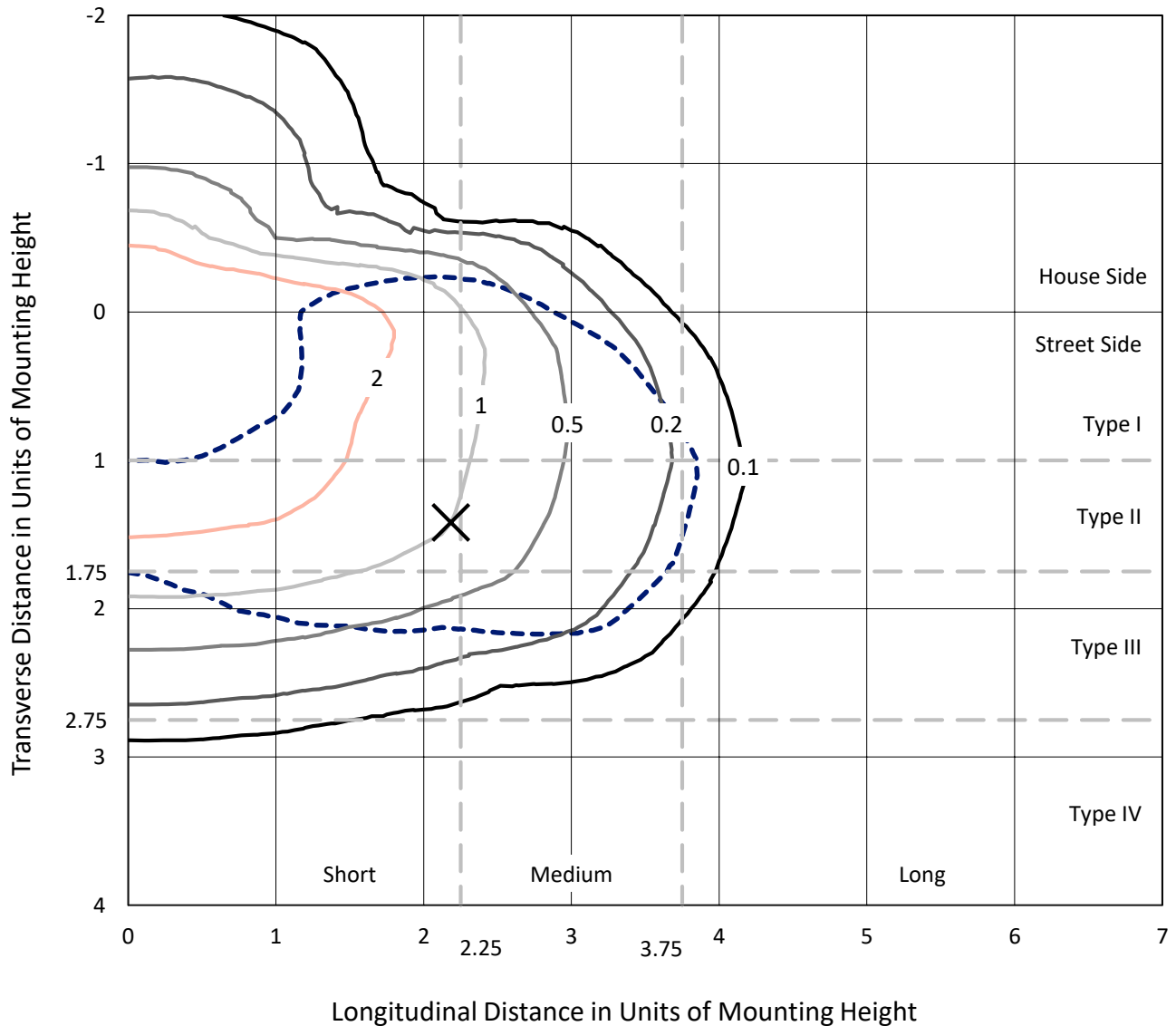


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

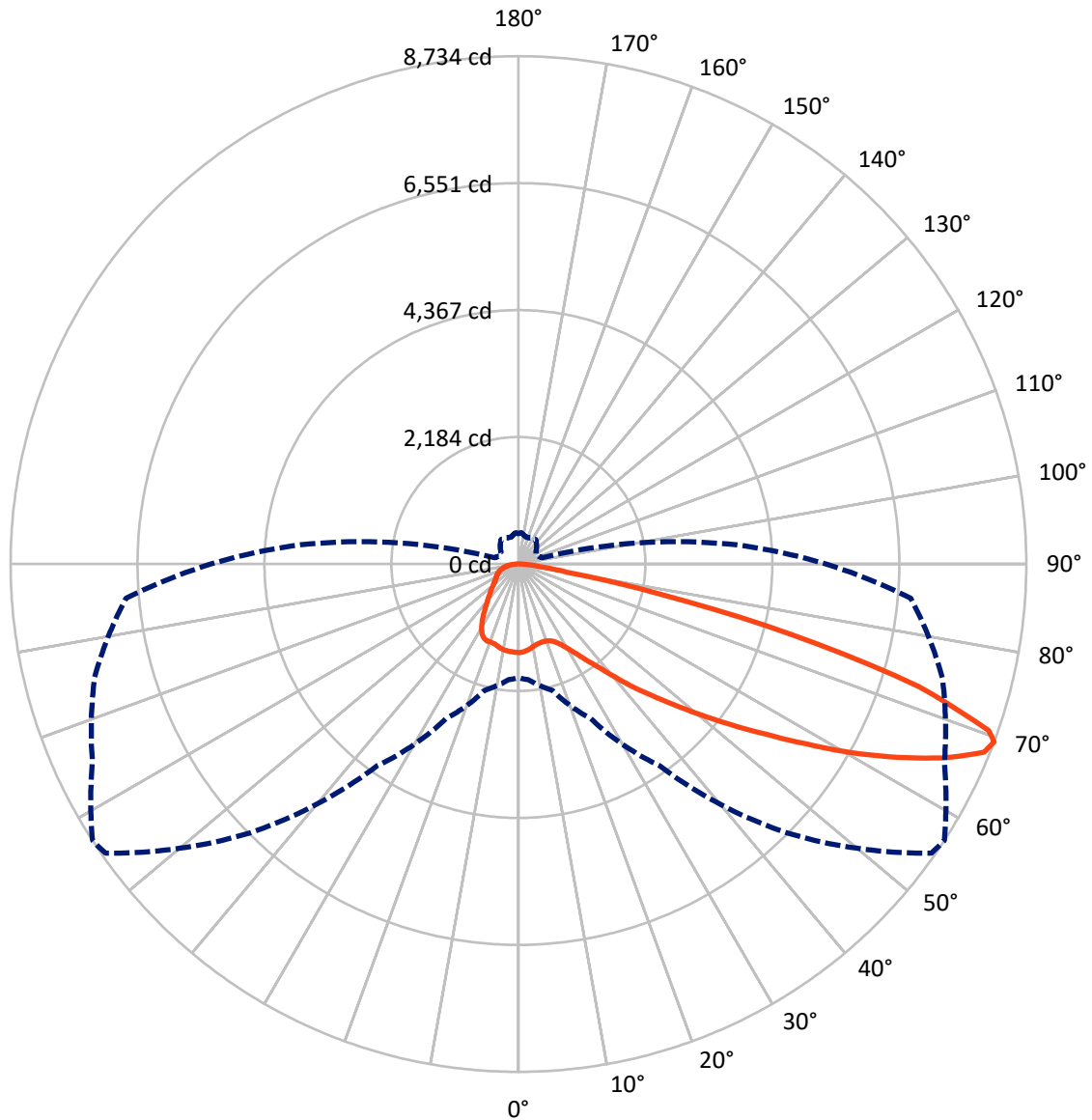


Based on 20 foot mounting height. Maximum calculated value = 3.9 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2723.0 | 0.0 | 2723.0 |
| | % Fixture | 22.1 | 0.0 | 22.1 |
| Street Side | Lumens | 9616.9 | 0.0 | 9616.9 |
| | % Fixture | 77.9 | 0.0 | 77.9 |
| Total | Lumens | 12339.9 | 0.0 | 12339.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 142.7 | 1.2 |
| 10°-20° | 405.9 | 3.3 |
| 20°-30° | 675.1 | 5.5 |
| 30°-40° | 1102.5 | 8.9 |
| 40°-50° | 1860.7 | 15.1 |
| 50°-60° | 2894.5 | 23.5 |
| 60°-70° | 3447.9 | 27.9 |
| 70°-80° | 1606.3 | 13.0 |
| 80°-90° | 204.3 | 1.7 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 12339.9 | 100.0 |
| 0°-180° | 12339.9 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P198775

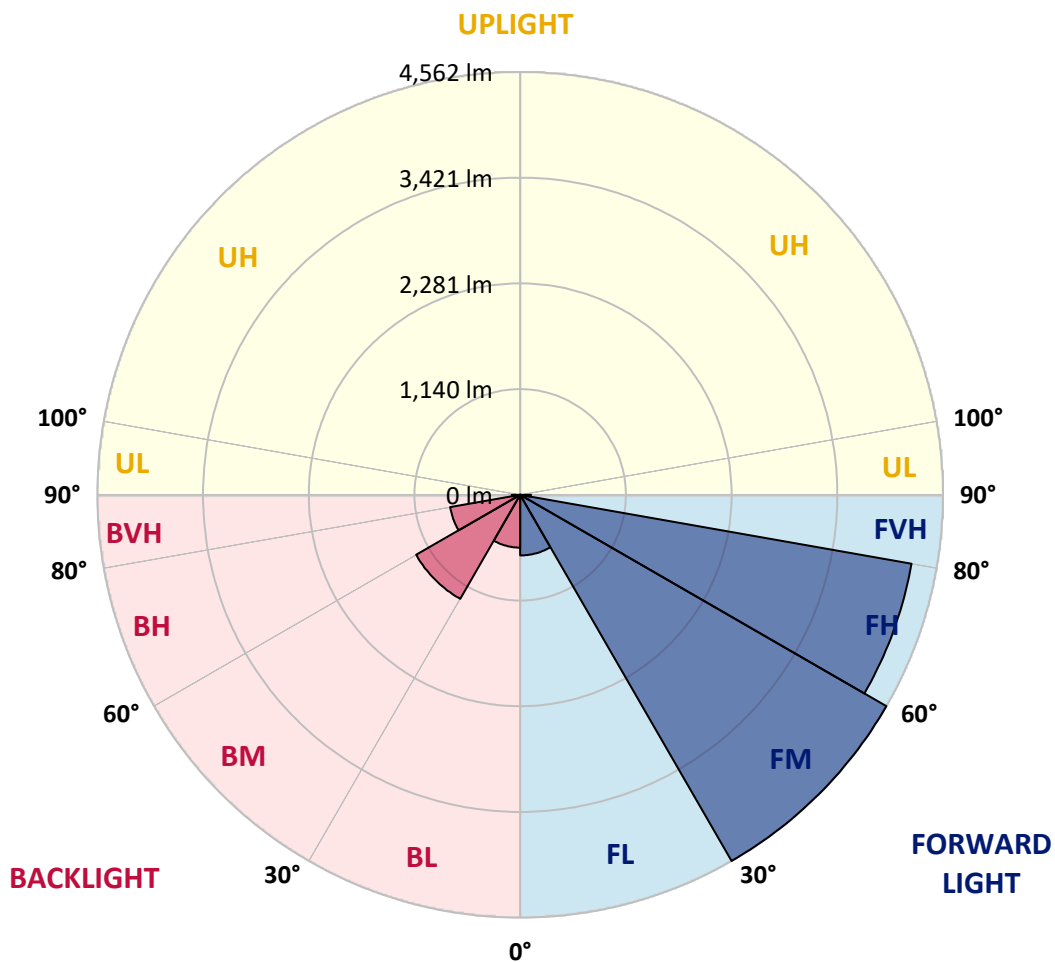
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 653.5 | 5.3 | | | |
| FM | (30°-60°) | 4561.7 | 37.0 | | | |
| FH | (60°-80°) | 4286.9 | 34.7 | | | G2/5000 |
| FVH | (80°-90°) | 114.8 | 0.9 | | | G2/225 |
| BL | (0°-30°) | 570.2 | 4.6 | B2/1000 | | |
| BM | (30°-60°) | 1296.0 | 10.5 | B2/2500 | | |
| BH | (60°-80°) | 767.3 | 6.2 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 89.5 | 0.7 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type III Short





REPORT NUMBER: P198775

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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 |
| 2.5° | 1516.0 | 1516.0 | 1520.0 | 1520.0 | 1520.0 | 1518.4 | 1513.7 | 1515.2 | 1512.0 | 1509.7 | 1505.8 |
| 5° | 1485.2 | 1486.8 | 1491.6 | 1493.1 | 1495.5 | 1496.3 | 1496.3 | 1495.5 | 1496.3 | 1496.3 | 1493.9 |
| 7.5° | 1442.6 | 1444.1 | 1449.6 | 1452.8 | 1460.0 | 1466.3 | 1469.4 | 1469.4 | 1473.4 | 1476.5 | 1477.3 |
| 10° | 1416.5 | 1416.5 | 1419.7 | 1419.7 | 1425.2 | 1428.3 | 1438.6 | 1437.9 | 1448.9 | 1459.1 | 1463.8 |
| 12.5° | 1413.3 | 1413.3 | 1411.8 | 1406.3 | 1403.1 | 1402.3 | 1412.5 | 1414.1 | 1430.7 | 1448.9 | 1457.6 |
| 15° | 1423.5 | 1423.5 | 1418.8 | 1407.8 | 1395.9 | 1390.4 | 1400.7 | 1403.8 | 1422.0 | 1443.4 | 1456.8 |
| 17.5° | 1456.8 | 1456.0 | 1445.7 | 1423.5 | 1403.1 | 1394.4 | 1397.6 | 1400.7 | 1417.3 | 1441.7 | 1458.3 |
| 20° | 1530.2 | 1530.2 | 1508.1 | 1467.8 | 1432.2 | 1411.8 | 1407.0 | 1409.3 | 1421.2 | 1444.1 | 1465.5 |
| 22.5° | 1659.0 | 1661.4 | 1621.9 | 1555.5 | 1494.7 | 1451.3 | 1432.2 | 1434.7 | 1440.2 | 1462.3 | 1486.0 |
| 25° | 1848.6 | 1842.3 | 1786.2 | 1692.2 | 1597.4 | 1523.2 | 1484.4 | 1486.8 | 1486.8 | 1507.3 | 1531.9 |
| 27.5° | 2049.3 | 2050.8 | 1970.3 | 1869.1 | 1744.3 | 1633.8 | 1572.1 | 1571.4 | 1570.5 | 1590.3 | 1616.4 |
| 30° | 2276.0 | 2276.8 | 2183.6 | 2066.7 | 1923.7 | 1782.3 | 1689.8 | 1689.0 | 1681.9 | 1706.4 | 1740.3 |
| 32.5° | 2524.0 | 2523.3 | 2415.1 | 2283.1 | 2124.4 | 1964.0 | 1843.9 | 1843.1 | 1837.5 | 1870.8 | 1911.8 |
| 35° | 2799.0 | 2799.0 | 2691.6 | 2528.8 | 2357.4 | 2178.8 | 2039.8 | 2039.0 | 2042.1 | 2087.2 | 2125.9 |
| 37.5° | 3130.0 | 3137.1 | 3007.6 | 2810.0 | 2622.8 | 2432.5 | 2270.4 | 2265.7 | 2242.0 | 2317.9 | 2381.8 |
| 40° | 3475.3 | 3495.0 | 3360.7 | 3130.0 | 2927.8 | 2731.1 | 2552.5 | 2549.3 | 2528.8 | 2609.3 | 2712.9 |
| 42.5° | 3849.0 | 3894.0 | 3744.6 | 3509.2 | 3288.8 | 3076.3 | 2897.0 | 2888.3 | 2809.2 | 2934.8 | 3096.8 |
| 45° | 4338.7 | 4367.9 | 4151.4 | 3938.2 | 3730.4 | 3487.9 | 3274.6 | 3227.9 | 3148.9 | 3310.2 | 3520.3 |
| 47.5° | 4672.1 | 4657.9 | 4522.8 | 4379.8 | 4246.3 | 4014.1 | 3686.2 | 3626.9 | 3530.5 | 3743.8 | 3975.3 |
| 50° | 4879.1 | 4889.3 | 4813.5 | 4806.4 | 4799.3 | 4637.3 | 4150.7 | 4079.6 | 3968.2 | 4221.0 | 4491.2 |
| 52.5° | 5015.7 | 4969.1 | 4982.6 | 5143.7 | 5338.9 | 5261.4 | 4676.0 | 4597.0 | 4482.5 | 4735.2 | 5040.2 |
| 55° | 4958.9 | 4897.3 | 5021.3 | 5338.9 | 5797.9 | 5815.3 | 5252.8 | 5171.3 | 5073.4 | 5282.0 | 5700.7 |
| 57.5° | 4723.5 | 4754.3 | 4950.2 | 5391.8 | 6111.5 | 6311.3 | 5915.5 | 5832.6 | 5639.8 | 5851.6 | 6328.0 |
| 60° | 4392.4 | 4454.8 | 4754.3 | 5308.1 | 6331.1 | 6697.7 | 6643.1 | 6587.8 | 6256.1 | 6406.1 | 6986.8 |
| 62.5° | 4037.0 | 4098.6 | 4466.7 | 5165.1 | 6232.3 | 7039.7 | 7357.3 | 7323.3 | 6936.2 | 6940.2 | 7404.7 |
| 65° | 3511.6 | 3536.9 | 3912.9 | 4774.8 | 5958.2 | 7348.7 | 8072.3 | 8042.2 | 7586.4 | 7396.0 | 7521.7 |
| 67.5° | 2652.0 | 2683.6 | 2992.5 | 3769.2 | 5124.0 | 7181.1 | 8643.4 | 8638.7 | 7977.5 | 7565.1 | 7243.5 |
| 69° | 1958.4 | 1997.1 | 2249.2 | 2926.2 | 4236.8 | 6542.8 | 8670.3 | 8734.3 | 8083.4 | 7547.7 | 6773.5 |
| 70° | 1433.1 | 1477.3 | 1710.4 | 2322.6 | 3529.0 | 5838.2 | 8440.4 | 8577.9 | 8043.1 | 7437.9 | 6406.9 |
| 72.5° | 609.1 | 624.1 | 738.7 | 1048.3 | 1790.2 | 3520.3 | 6913.3 | 7202.5 | 7264.1 | 6664.5 | 5005.5 |
| 75° | 381.6 | 386.3 | 431.4 | 538.0 | 796.4 | 1456.0 | 4476.9 | 4871.2 | 5423.4 | 5170.6 | 3351.2 |
| 77.5° | 287.6 | 291.5 | 317.6 | 370.5 | 494.5 | 543.5 | 2076.9 | 2476.7 | 3106.3 | 3041.5 | 1667.7 |
| 80° | 220.4 | 222.8 | 240.2 | 269.3 | 348.4 | 340.5 | 673.9 | 846.9 | 1296.4 | 1144.0 | 590.1 |
| 82.5° | 173.0 | 173.8 | 188.8 | 194.4 | 243.4 | 229.1 | 338.1 | 376.9 | 523.8 | 435.3 | 288.4 |
| 85° | 153.2 | 155.6 | 170.6 | 142.2 | 155.6 | 138.2 | 185.7 | 201.4 | 278.0 | 262.3 | 109.0 |
| 87.5° | 78.3 | 82.1 | 143.0 | 121.6 | 78.3 | 65.6 | 81.3 | 87.7 | 112.9 | 122.4 | 52.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P198775

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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 | 1524.7 |
| 2.5° | 1506.5 | 1507.3 | 1509.7 | 1513.7 | 1520.0 | 1527.9 | 1537.4 | 1546.8 | 1552.3 | 1556.3 | 1554.7 |
| 5° | 1493.9 | 1494.7 | 1499.4 | 1506.5 | 1514.5 | 1526.2 | 1542.1 | 1554.0 | 1562.7 | 1568.2 | 1567.4 |
| 7.5° | 1478.1 | 1480.5 | 1489.9 | 1497.8 | 1509.0 | 1518.4 | 1531.1 | 1542.1 | 1550.8 | 1556.3 | 1555.5 |
| 10° | 1466.3 | 1468.7 | 1480.5 | 1490.7 | 1500.3 | 1501.8 | 1499.4 | 1496.3 | 1495.5 | 1499.4 | 1497.8 |
| 12.5° | 1460.7 | 1465.5 | 1476.5 | 1483.6 | 1479.7 | 1464.7 | 1447.3 | 1440.2 | 1437.9 | 1445.7 | 1446.5 |
| 15° | 1462.3 | 1466.3 | 1475.7 | 1471.0 | 1449.6 | 1424.4 | 1414.9 | 1420.5 | 1425.2 | 1429.9 | 1430.7 |
| 17.5° | 1466.3 | 1468.7 | 1471.0 | 1453.6 | 1423.5 | 1407.0 | 1403.8 | 1398.3 | 1384.1 | 1376.2 | 1375.4 |
| 20° | 1473.4 | 1476.5 | 1472.5 | 1444.9 | 1418.0 | 1395.9 | 1358.1 | 1324.0 | 1291.7 | 1274.3 | 1267.1 |
| 22.5° | 1497.8 | 1500.3 | 1488.4 | 1461.5 | 1420.5 | 1348.6 | 1271.9 | 1213.4 | 1163.7 | 1136.8 | 1126.6 |
| 25° | 1546.1 | 1550.0 | 1533.4 | 1499.4 | 1392.0 | 1266.4 | 1158.2 | 1079.1 | 1016.7 | 984.4 | 975.7 |
| 27.5° | 1630.6 | 1634.5 | 1616.4 | 1527.9 | 1325.6 | 1156.5 | 1025.4 | 947.3 | 893.4 | 865.8 | 861.9 |
| 30° | 1757.0 | 1762.5 | 1745.9 | 1527.1 | 1224.5 | 1016.7 | 895.9 | 850.1 | 819.3 | 800.3 | 799.4 |
| 32.5° | 1932.4 | 1952.9 | 1885.0 | 1500.3 | 1099.7 | 875.3 | 797.9 | 782.1 | 767.1 | 754.4 | 754.4 |
| 35° | 2155.2 | 2203.3 | 2022.4 | 1444.1 | 962.2 | 779.0 | 743.4 | 728.3 | 709.4 | 696.0 | 694.4 |
| 37.5° | 2421.3 | 2496.4 | 2120.4 | 1344.6 | 843.7 | 732.3 | 710.2 | 685.7 | 655.7 | 629.6 | 623.3 |
| 40° | 2787.1 | 2804.5 | 2168.6 | 1182.6 | 755.2 | 707.1 | 679.4 | 648.6 | 610.7 | 581.4 | 578.3 |
| 42.5° | 3154.5 | 3097.6 | 2159.0 | 1008.8 | 704.7 | 684.1 | 647.8 | 613.9 | 579.9 | 555.4 | 555.4 |
| 45° | 3572.5 | 3353.5 | 2087.2 | 834.2 | 658.9 | 658.1 | 618.6 | 586.2 | 560.1 | 542.0 | 538.0 |
| 47.5° | 3972.1 | 3583.5 | 1963.1 | 705.4 | 611.4 | 632.0 | 599.7 | 573.6 | 549.8 | 532.4 | 529.3 |
| 50° | 4457.2 | 3849.7 | 1831.2 | 615.4 | 565.7 | 609.1 | 591.7 | 578.3 | 555.4 | 525.4 | 522.2 |
| 52.5° | 4939.1 | 4161.0 | 1729.3 | 547.5 | 525.4 | 591.0 | 596.5 | 598.0 | 576.7 | 518.2 | 514.3 |
| 55° | 5456.5 | 4493.5 | 1621.9 | 494.5 | 492.1 | 582.3 | 607.5 | 605.9 | 595.7 | 519.9 | 513.5 |
| 57.5° | 5948.8 | 4827.7 | 1461.5 | 457.5 | 466.1 | 573.6 | 609.9 | 584.6 | 566.4 | 527.7 | 517.4 |
| 60° | 6356.4 | 5104.2 | 1226.1 | 431.4 | 444.0 | 556.2 | 594.1 | 556.2 | 525.4 | 526.1 | 516.7 |
| 62.5° | 6554.7 | 5181.7 | 937.7 | 401.3 | 425.9 | 527.7 | 571.2 | 534.8 | 506.4 | 529.3 | 523.8 |
| 65° | 6403.8 | 4961.2 | 668.3 | 373.7 | 403.7 | 494.5 | 557.7 | 516.7 | 496.9 | 545.1 | 538.8 |
| 67.5° | 5861.8 | 4360.8 | 485.1 | 349.1 | 382.4 | 460.5 | 532.4 | 500.1 | 487.4 | 557.0 | 542.8 |
| 69° | 5285.9 | 3765.2 | 420.3 | 334.9 | 367.3 | 442.4 | 515.9 | 491.4 | 480.3 | 540.3 | 519.9 |
| 70° | 4807.2 | 3306.2 | 387.9 | 326.3 | 354.8 | 432.1 | 503.2 | 485.9 | 473.2 | 520.6 | 496.1 |
| 72.5° | 3446.8 | 2136.9 | 326.3 | 300.2 | 321.5 | 409.2 | 475.6 | 465.3 | 446.3 | 470.0 | 454.3 |
| 75° | 2082.4 | 1115.5 | 277.3 | 273.3 | 286.7 | 377.7 | 443.1 | 430.6 | 411.6 | 414.0 | 406.1 |
| 77.5° | 956.7 | 515.1 | 232.3 | 241.7 | 250.4 | 338.1 | 403.7 | 389.4 | 372.0 | 365.8 | 366.5 |
| 80° | 419.5 | 301.0 | 194.4 | 206.2 | 210.9 | 304.1 | 361.0 | 345.2 | 326.3 | 360.3 | 334.2 |
| 82.5° | 226.7 | 174.6 | 151.7 | 159.6 | 173.0 | 264.6 | 313.6 | 293.1 | 275.0 | 320.0 | 258.3 |
| 85° | 91.7 | 89.3 | 102.7 | 110.6 | 120.1 | 190.4 | 262.3 | 240.9 | 218.8 | 195.9 | 191.2 |
| 87.5° | 39.5 | 42.7 | 50.5 | 53.7 | 64.0 | 118.5 | 176.2 | 154.1 | 154.9 | 132.7 | 130.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)