

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: P140365

Luminaire Tested: **CEM-F03-LED-E-U-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P140365
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33686)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CEM-F03-LED-E-U-5MQ
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7562.9 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (A_{in}): 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

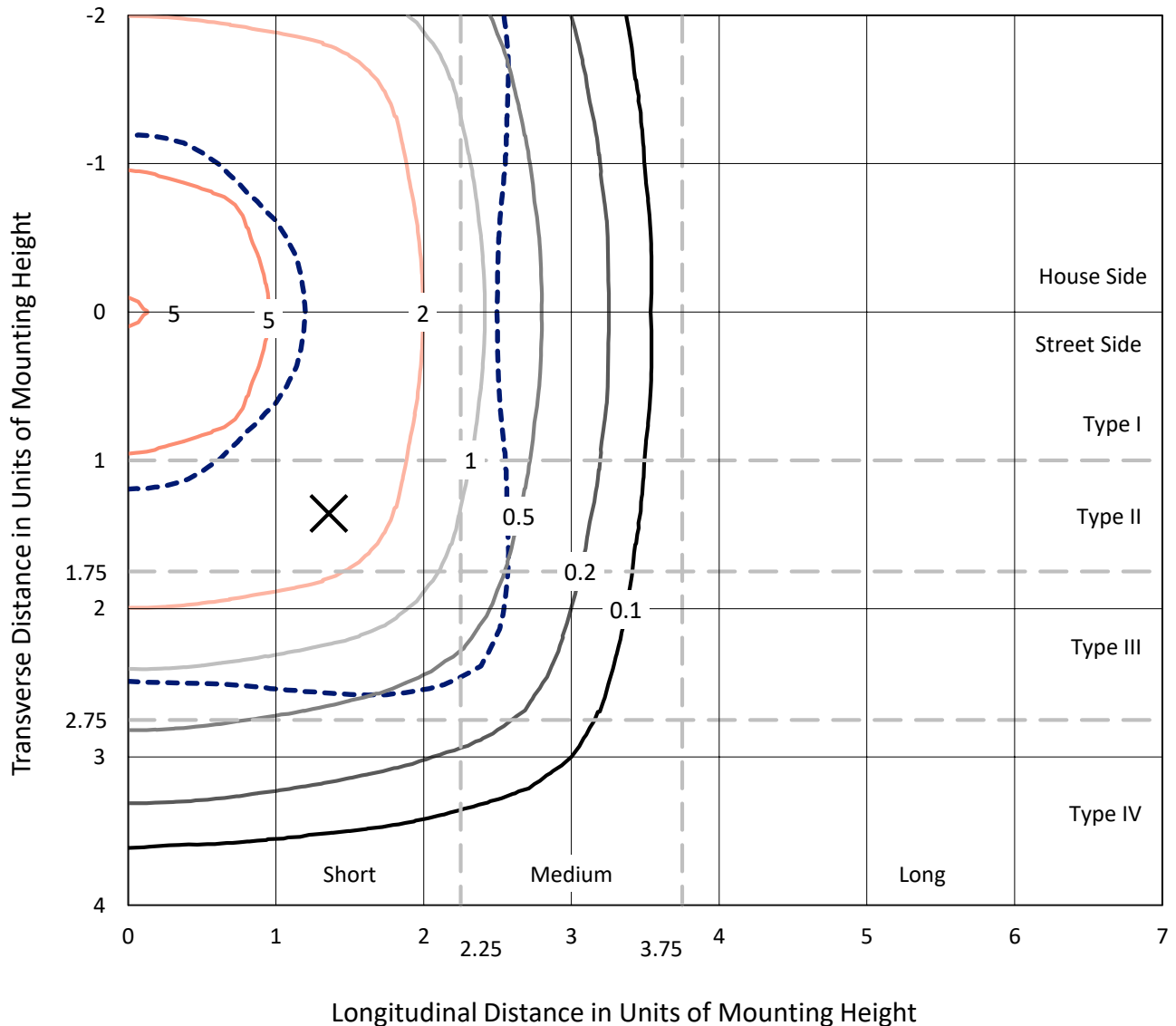


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Iso-Footcandle Lines of Horizontal Illumination

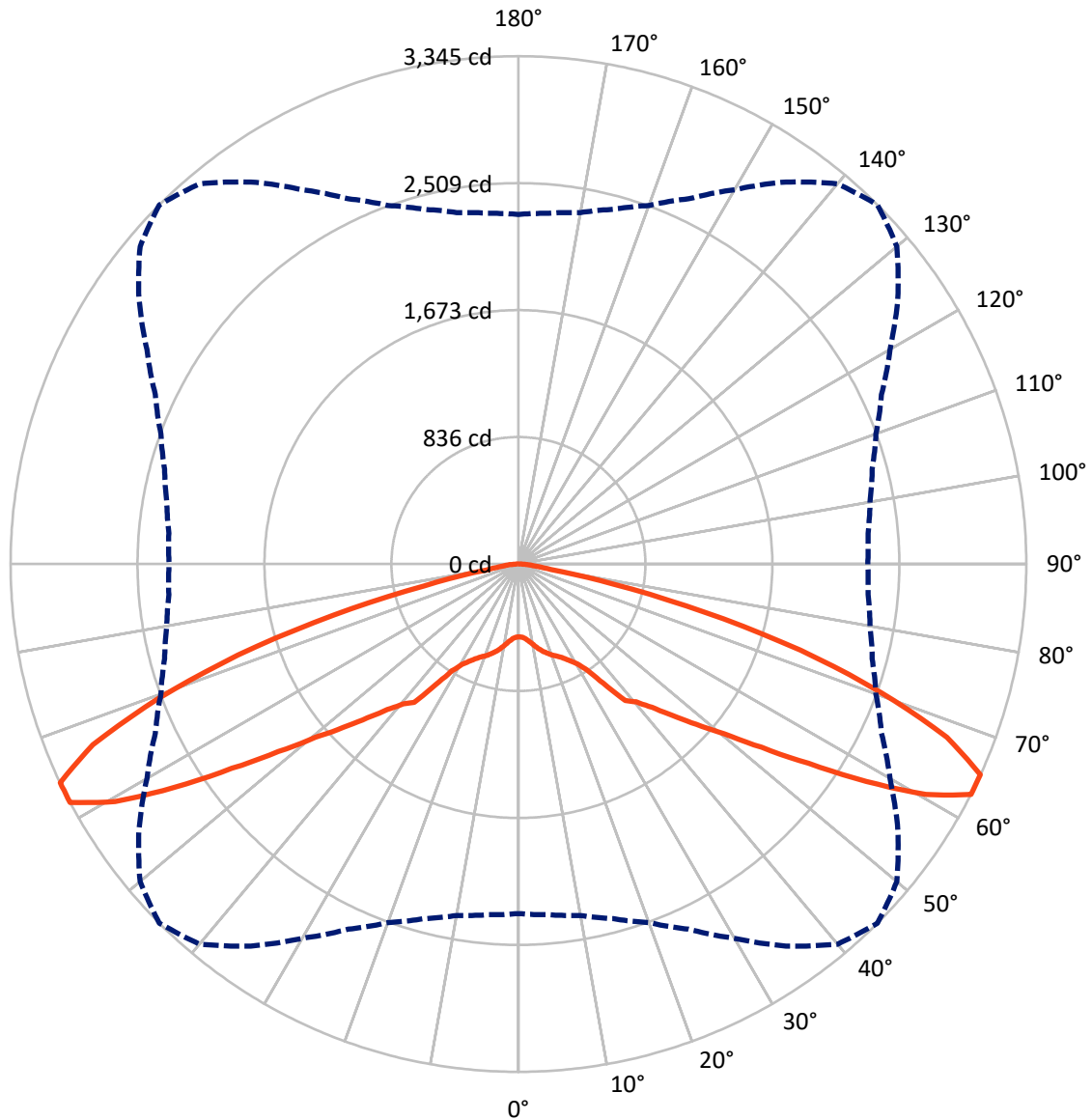
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 3781.4 | 0.0 | 3781.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 3781.4 | 0.0 | 3781.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 7562.9 | 0.0 | 7562.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.8 | 0.6 |
| 10°-20° | 169.9 | 2.2 |
| 20°-30° | 326.4 | 4.3 |
| 30°-40° | 628.0 | 8.3 |
| 40°-50° | 1093.0 | 14.5 |
| 50°-60° | 1963.1 | 26.0 |
| 60°-70° | 2406.5 | 31.8 |
| 70°-80° | 848.7 | 11.2 |
| 80°-90° | 78.5 | 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°-90° | 7562.9 | 100.0 |
| 0°-180° | 7562.9 | 100.0 |



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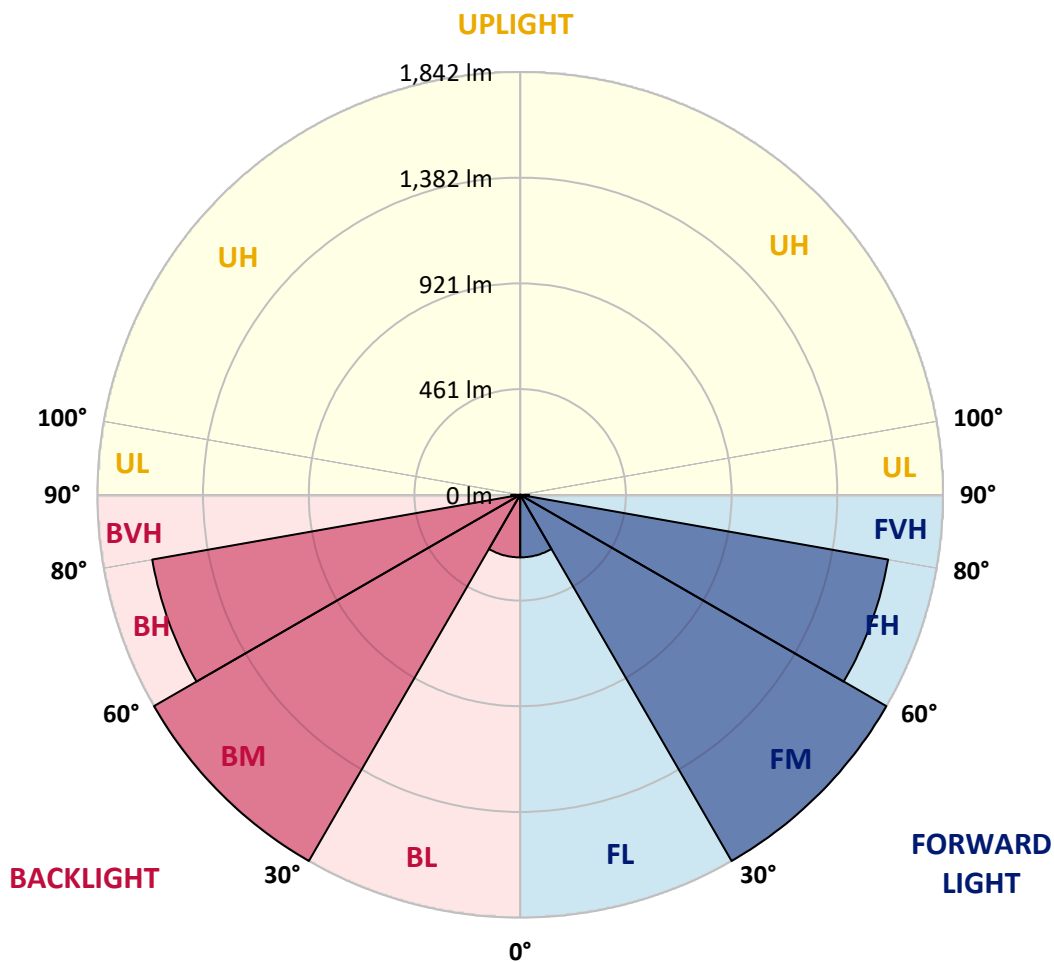
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 272.6 | 3.6 | | | |
| FM (30°-60°) | 1842.0 | 24.4 | | | |
| FH (60°-80°) | 1627.6 | 21.5 | | | G1/1800 |
| FVH (80°-90°) | 39.2 | 0.5 | | | G1/100 |
| BL (0°-30°) | 272.6 | 3.6 | B1/500 | | |
| BM (30°-60°) | 1842.0 | 24.4 | B2/2500 | | |
| BH (60°-80°) | 1627.6 | 21.5 | B3/2500 | | G1/1800 |
| BVH (80°-90°) | 39.2 | 0.5 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 |
| 2.5° | 485.4 | 485.4 | 484.6 | 483.8 | 483.8 | 483.8 | 482.9 | 482.9 | 483.8 | 482.1 | 482.1 |
| 5° | 497.8 | 498.6 | 497.8 | 497.0 | 496.1 | 496.1 | 495.3 | 495.3 | 496.1 | 494.5 | 493.7 |
| 7.5° | 520.9 | 521.7 | 520.1 | 519.3 | 518.4 | 517.6 | 516.8 | 516.0 | 516.8 | 514.3 | 514.3 |
| 10° | 550.6 | 550.6 | 550.6 | 547.3 | 547.3 | 544.8 | 544.0 | 542.4 | 543.2 | 540.7 | 540.7 |
| 12.5° | 580.3 | 580.3 | 579.5 | 577.9 | 577.0 | 575.4 | 573.7 | 573.7 | 572.1 | 568.8 | 567.1 |
| 15° | 606.8 | 607.6 | 606.8 | 604.3 | 603.5 | 601.0 | 601.0 | 599.3 | 596.9 | 595.2 | 593.6 |
| 17.5° | 631.5 | 632.4 | 629.9 | 629.0 | 626.6 | 624.9 | 623.3 | 622.4 | 620.8 | 618.3 | 617.5 |
| 20° | 655.5 | 654.6 | 652.2 | 648.9 | 647.2 | 645.6 | 643.9 | 643.1 | 642.3 | 640.6 | 640.6 |
| 22.5° | 678.6 | 678.6 | 676.1 | 671.2 | 667.8 | 666.2 | 663.7 | 662.1 | 660.4 | 659.6 | 661.2 |
| 25° | 713.3 | 712.4 | 707.5 | 702.5 | 696.7 | 691.8 | 688.5 | 687.7 | 686.0 | 686.0 | 686.8 |
| 27.5° | 757.8 | 756.2 | 748.8 | 742.1 | 735.5 | 728.9 | 724.8 | 721.5 | 720.7 | 719.9 | 719.9 |
| 30° | 814.0 | 811.5 | 804.9 | 796.6 | 789.2 | 780.9 | 772.7 | 770.2 | 766.1 | 762.8 | 768.6 |
| 32.5° | 921.3 | 922.9 | 909.7 | 893.2 | 876.7 | 861.0 | 847.0 | 836.3 | 829.7 | 830.5 | 830.5 |
| 35° | 1039.3 | 1040.2 | 1034.4 | 1027.8 | 1022.8 | 1013.7 | 998.1 | 984.9 | 974.9 | 964.2 | 969.2 |
| 37.5° | 1090.5 | 1091.3 | 1086.4 | 1085.6 | 1088.9 | 1094.6 | 1110.3 | 1121.9 | 1139.2 | 1141.7 | 1136.7 |
| 40° | 1180.5 | 1176.4 | 1169.8 | 1168.1 | 1165.6 | 1173.9 | 1180.5 | 1186.3 | 1188.8 | 1193.7 | 1188.8 |
| 42.5° | 1274.6 | 1273.0 | 1268.0 | 1262.2 | 1262.2 | 1263.9 | 1274.6 | 1283.7 | 1289.5 | 1290.3 | 1289.5 |
| 45° | 1380.3 | 1377.8 | 1373.7 | 1372.8 | 1375.3 | 1382.8 | 1390.2 | 1401.7 | 1419.9 | 1420.7 | 1419.9 |
| 47.5° | 1496.7 | 1498.3 | 1491.7 | 1494.2 | 1498.3 | 1510.7 | 1531.3 | 1550.3 | 1570.1 | 1577.6 | 1568.5 |
| 50° | 1656.0 | 1650.2 | 1650.2 | 1647.7 | 1658.5 | 1676.6 | 1701.4 | 1723.7 | 1751.8 | 1758.4 | 1744.3 |
| 52.5° | 1872.3 | 1859.9 | 1862.4 | 1855.8 | 1861.6 | 1878.1 | 1918.5 | 1953.2 | 1988.7 | 2006.0 | 1978.8 |
| 55° | 2132.3 | 2111.7 | 2114.2 | 2120.8 | 2125.7 | 2153.8 | 2205.0 | 2244.6 | 2311.5 | 2317.2 | 2285.9 |
| 57.5° | 2345.3 | 2339.5 | 2342.8 | 2358.5 | 2389.9 | 2438.6 | 2503.0 | 2598.8 | 2681.3 | 2701.1 | 2667.3 |
| 60° | 2422.9 | 2427.0 | 2450.2 | 2491.4 | 2550.9 | 2637.6 | 2763.0 | 2912.5 | 3043.7 | 3083.3 | 3032.2 |
| 62.5° | 2302.4 | 2318.9 | 2350.3 | 2418.8 | 2512.9 | 2654.1 | 2846.4 | 3071.8 | 3268.3 | 3345.0 | 3253.4 |
| 65° | 2067.1 | 2077.8 | 2129.0 | 2187.6 | 2309.0 | 2470.8 | 2706.9 | 3000.0 | 3241.8 | 3343.4 | 3241.0 |
| 67.5° | 1758.4 | 1779.0 | 1823.6 | 1896.2 | 2001.1 | 2165.4 | 2413.0 | 2712.7 | 2955.4 | 3044.5 | 2954.6 |
| 70° | 1411.6 | 1420.7 | 1448.8 | 1505.8 | 1614.7 | 1760.0 | 1972.2 | 2240.5 | 2476.6 | 2532.7 | 2460.9 |
| 72.5° | 979.1 | 997.2 | 1021.2 | 1073.2 | 1141.7 | 1264.7 | 1439.7 | 1637.0 | 1826.9 | 1943.3 | 1837.6 |
| 75° | 421.8 | 397.9 | 450.7 | 502.7 | 586.9 | 700.9 | 837.9 | 999.7 | 1187.9 | 1265.5 | 1161.5 |
| 77.5° | 126.3 | 125.5 | 133.7 | 148.6 | 178.3 | 236.1 | 331.0 | 440.0 | 585.3 | 635.7 | 545.7 |
| 80° | 103.2 | 106.5 | 109.8 | 113.1 | 116.4 | 120.5 | 128.0 | 149.4 | 183.3 | 216.3 | 175.8 |
| 82.5° | 87.5 | 91.6 | 100.7 | 105.7 | 108.1 | 109.0 | 109.0 | 108.1 | 104.0 | 102.4 | 101.5 |
| 85° | 66.0 | 72.6 | 85.0 | 92.5 | 92.5 | 92.5 | 92.5 | 90.0 | 84.2 | 74.3 | 82.6 |
| 87.5° | 22.3 | 29.7 | 49.5 | 52.8 | 54.5 | 50.4 | 52.8 | 53.7 | 44.6 | 33.8 | 42.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 | 479.6 |
| 2.5° | 482.1 | 482.1 | 482.1 | 482.9 | 482.1 | 482.1 | 482.1 | 482.1 |
| 5° | 494.5 | 493.7 | 494.5 | 493.7 | 494.5 | 494.5 | 493.7 | 494.5 |
| 7.5° | 513.5 | 513.5 | 514.3 | 514.3 | 513.5 | 513.5 | 513.5 | 513.5 |
| 10° | 539.1 | 537.4 | 538.2 | 538.2 | 538.2 | 537.4 | 537.4 | 536.6 |
| 12.5° | 565.5 | 563.8 | 563.8 | 563.8 | 563.8 | 563.0 | 563.8 | 563.8 |
| 15° | 590.3 | 588.6 | 586.9 | 586.9 | 587.8 | 588.6 | 588.6 | 587.8 |
| 17.5° | 614.2 | 612.5 | 610.1 | 610.1 | 609.2 | 610.9 | 612.5 | 611.7 |
| 20° | 638.1 | 637.3 | 633.2 | 633.2 | 633.2 | 634.8 | 635.7 | 638.1 |
| 22.5° | 662.1 | 661.2 | 657.9 | 657.1 | 657.9 | 661.2 | 663.7 | 663.7 |
| 25° | 687.7 | 689.3 | 688.5 | 688.5 | 690.1 | 695.1 | 697.6 | 700.9 |
| 27.5° | 724.0 | 727.3 | 728.1 | 731.4 | 732.2 | 738.0 | 742.1 | 747.1 |
| 30° | 771.0 | 776.8 | 780.1 | 785.9 | 790.0 | 793.3 | 799.1 | 803.2 |
| 32.5° | 836.3 | 850.3 | 866.8 | 885.8 | 894.0 | 908.9 | 915.5 | 917.2 |
| 35° | 986.5 | 1001.4 | 1015.4 | 1023.7 | 1020.3 | 1024.5 | 1024.5 | 1027.8 |
| 37.5° | 1121.9 | 1107.0 | 1094.6 | 1092.2 | 1085.6 | 1083.1 | 1083.9 | 1086.4 |
| 40° | 1184.6 | 1177.2 | 1172.2 | 1174.7 | 1171.4 | 1168.9 | 1170.6 | 1171.4 |
| 42.5° | 1286.2 | 1274.6 | 1270.5 | 1269.7 | 1268.0 | 1269.7 | 1273.8 | 1272.1 |
| 45° | 1405.0 | 1390.2 | 1384.4 | 1383.6 | 1381.1 | 1380.3 | 1381.9 | 1385.2 |
| 47.5° | 1547.9 | 1529.7 | 1511.5 | 1505.8 | 1505.8 | 1500.8 | 1504.1 | 1499.2 |
| 50° | 1722.9 | 1693.2 | 1674.2 | 1663.4 | 1656.8 | 1649.4 | 1656.0 | 1645.3 |
| 52.5° | 1953.2 | 1911.1 | 1890.5 | 1876.4 | 1857.4 | 1858.3 | 1859.9 | 1855.8 |
| 55° | 2243.8 | 2197.5 | 2157.1 | 2129.9 | 2118.3 | 2111.7 | 2110.0 | 2123.3 |
| 57.5° | 2578.1 | 2496.4 | 2432.0 | 2384.1 | 2366.0 | 2341.2 | 2329.6 | 2329.6 |
| 60° | 2895.9 | 2747.3 | 2619.4 | 2539.3 | 2479.9 | 2437.8 | 2409.7 | 2401.5 |
| 62.5° | 3051.1 | 2825.8 | 2638.4 | 2506.3 | 2412.2 | 2351.9 | 2311.5 | 2300.7 |
| 65° | 2984.3 | 2697.8 | 2477.4 | 2328.8 | 2219.8 | 2142.2 | 2095.2 | 2082.0 |
| 67.5° | 2715.2 | 2415.5 | 2183.5 | 2034.1 | 1916.9 | 1832.7 | 1797.2 | 1782.3 |
| 70° | 2254.5 | 1979.6 | 1778.2 | 1632.1 | 1509.9 | 1438.9 | 1390.2 | 1370.4 |
| 72.5° | 1620.5 | 1411.6 | 1226.7 | 1101.3 | 991.5 | 954.3 | 888.3 | 881.7 |
| 75° | 957.6 | 776.0 | 623.3 | 527.5 | 429.3 | 375.6 | 345.1 | 312.0 |
| 77.5° | 389.6 | 278.2 | 208.9 | 157.7 | 135.4 | 123.0 | 117.2 | 115.6 |
| 80° | 132.9 | 118.9 | 112.3 | 109.8 | 106.5 | 104.8 | 100.7 | 97.4 |
| 82.5° | 104.8 | 104.0 | 100.7 | 99.9 | 96.6 | 91.6 | 83.4 | 78.4 |
| 85° | 87.5 | 85.9 | 81.7 | 80.9 | 78.4 | 71.8 | 62.7 | 57.0 |
| 87.5° | 49.5 | 45.4 | 41.3 | 42.1 | 39.6 | 34.7 | 25.6 | 18.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)