

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: McGRAW-EDISON

Report Number: P198187

Luminaire Tested: **TT-C2-LED-E1-T4-PM-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198187
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34703)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-C2-LED-E1-T4-PM-7050
Description: TOPTIER LED AREA/SITE LUMINAIRE
DRIVE LANE DISTRIBUTION
Light Source: (160) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3858.3 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

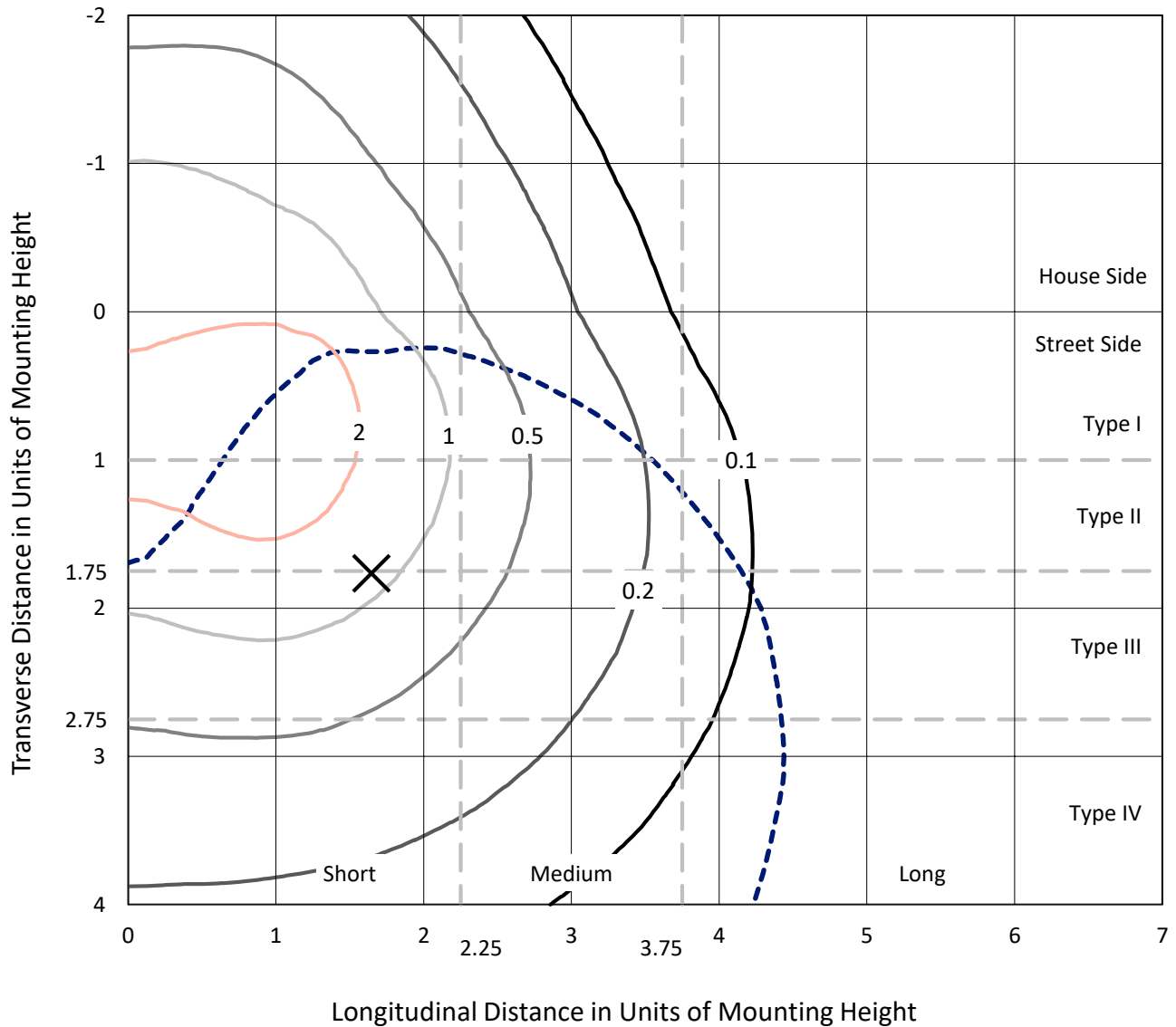
Input Watts (W): 41.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

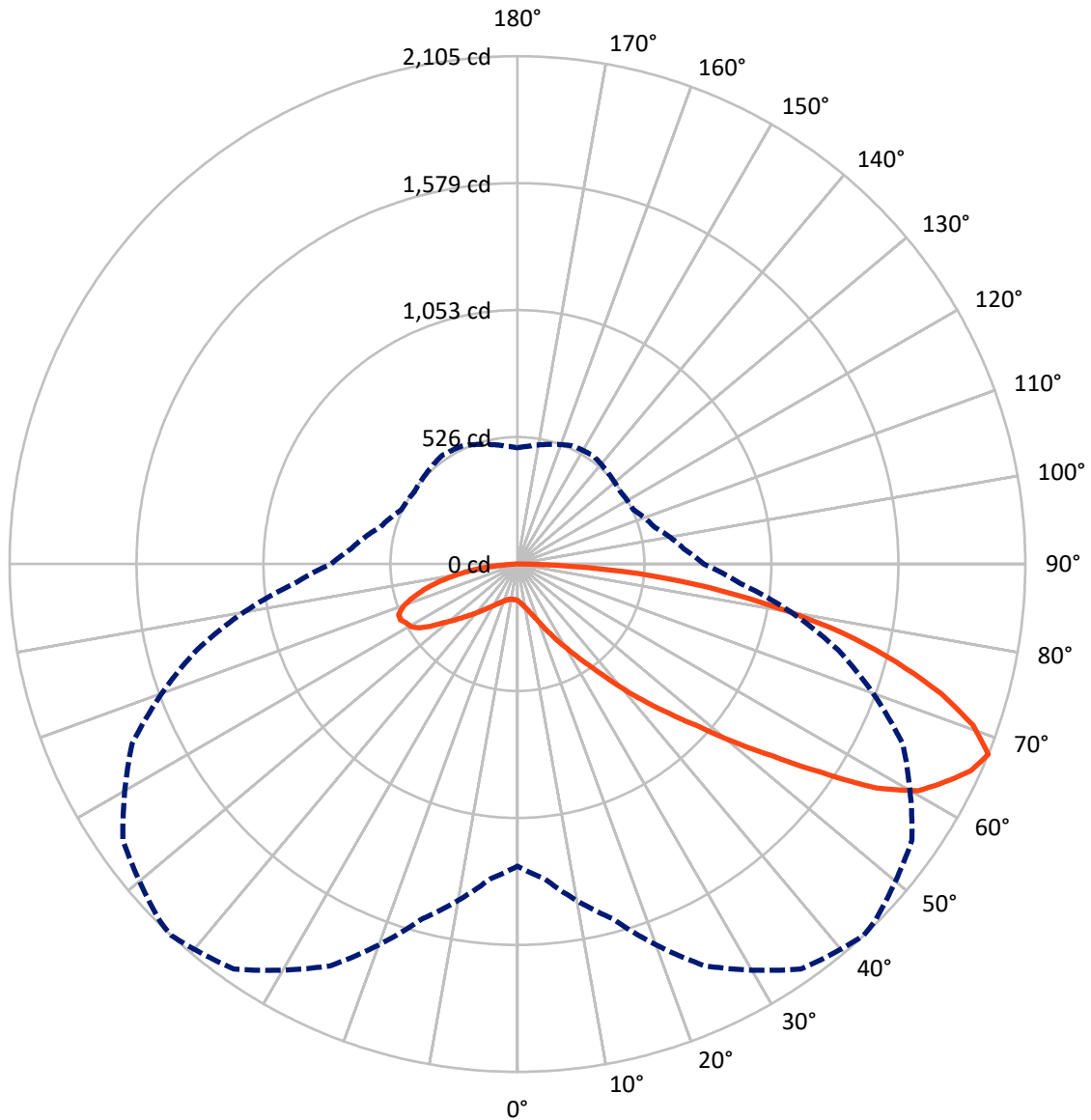
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 43-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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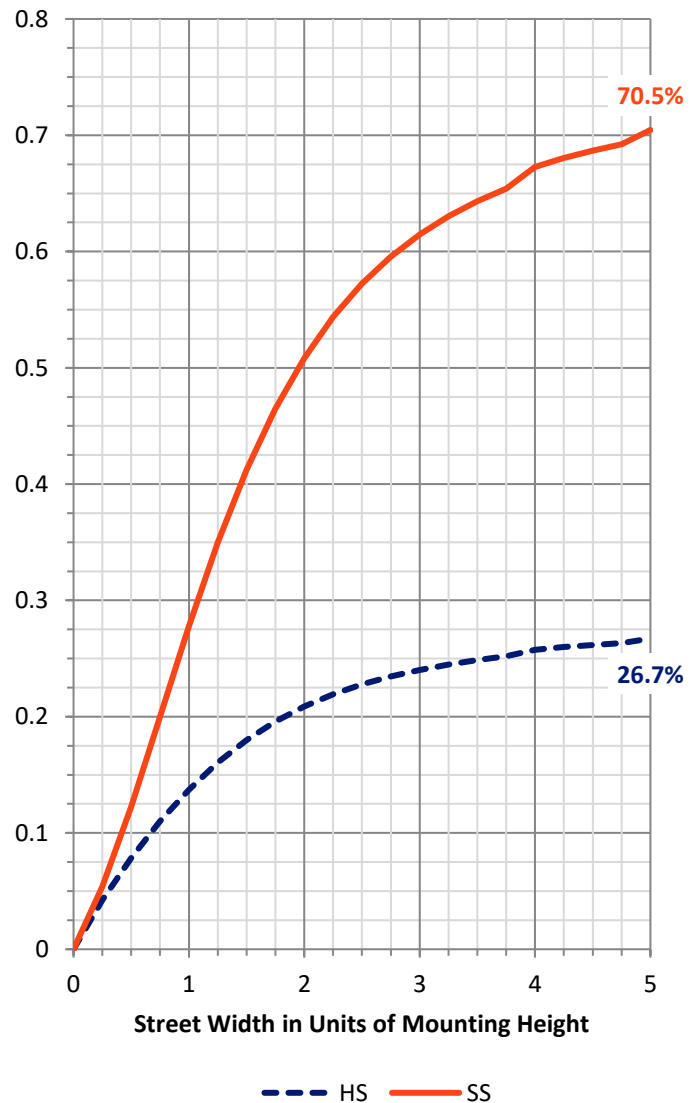
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1053.0 | 0.0 | 1053.0 |
| | % Fixture | 27.3 | 0.0 | 27.3 |
| Street Side | Lumens | 2805.3 | 0.0 | 2805.3 |
| | % Fixture | 72.7 | 0.0 | 72.7 |
| Total | Lumens | 3858.3 | 0.0 | 3858.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 15.2 | 0.4 |
| 10°-20° | 52.7 | 1.4 |
| 20°-30° | 115.1 | 3.0 |
| 30°-40° | 227.9 | 5.9 |
| 40°-50° | 431.5 | 11.2 |
| 50°-60° | 766.1 | 19.9 |
| 60°-70° | 1060.9 | 27.5 |
| 70°-80° | 910.0 | 23.6 |
| 80°-90° | 278.9 | 7.2 |
| 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°-90° | 3858.3 | 100.0 |
| 0°-180° | 3858.3 | 100.0 |



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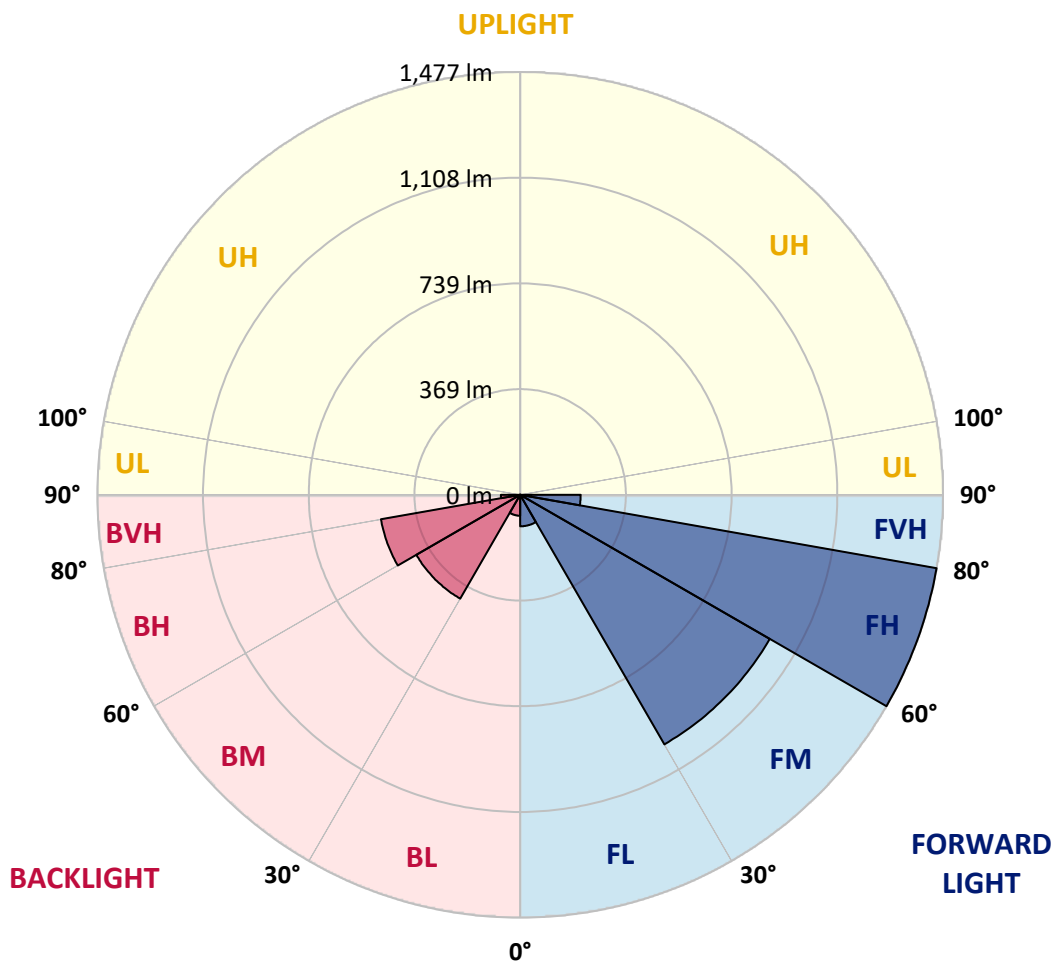
CATALOG NUMBER: TT-C2-LED-E1-T4-PM-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 109.9 | 2.8 | | | |
| FM (30°-60°) | 1006.7 | 26.1 | | | |
| FH (60°-80°) | 1477.1 | 38.3 | | | G1/1800 |
| FVH (80°-90°) | 211.5 | 5.5 | | | G2/225 |
| BL (0°-30°) | 73.0 | 1.9 | B0/110 | | |
| BM (30°-60°) | 418.8 | 10.9 | B1/1000 | | |
| BH (60°-80°) | 493.9 | 12.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 67.3 | 1.7 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 43° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 0° | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 |
| 2.5° | 159.1 | 158.4 | 158.4 | 158.4 | 157.7 | 157.0 | 157.0 | 156.3 | 155.6 | 154.9 | 153.5 |
| 5° | 167.5 | 166.1 | 166.1 | 166.1 | 165.4 | 164.7 | 164.0 | 162.6 | 160.5 | 158.4 | 157.0 |
| 7.5° | 177.3 | 178.0 | 178.0 | 175.9 | 174.5 | 173.1 | 172.4 | 169.6 | 166.8 | 163.3 | 160.5 |
| 10° | 189.2 | 189.9 | 189.9 | 188.5 | 185.7 | 184.3 | 182.9 | 180.1 | 175.2 | 170.3 | 166.1 |
| 12.5° | 202.5 | 203.9 | 204.6 | 202.5 | 199.0 | 196.2 | 196.9 | 192.0 | 185.7 | 179.4 | 173.1 |
| 15° | 222.1 | 221.4 | 223.5 | 219.3 | 215.8 | 212.3 | 211.6 | 204.6 | 198.3 | 189.9 | 182.2 |
| 17.5° | 246.0 | 243.2 | 243.2 | 241.1 | 239.0 | 233.4 | 230.6 | 223.5 | 213.0 | 203.2 | 191.3 |
| 20° | 270.5 | 269.8 | 268.4 | 267.0 | 262.8 | 256.5 | 257.2 | 246.0 | 233.4 | 219.3 | 204.6 |
| 22.5° | 299.2 | 302.0 | 297.8 | 297.8 | 294.3 | 289.4 | 287.3 | 272.6 | 255.8 | 236.2 | 219.3 |
| 25° | 330.1 | 330.8 | 330.8 | 332.2 | 331.5 | 323.1 | 318.9 | 305.5 | 285.9 | 260.0 | 235.5 |
| 27.5° | 361.6 | 364.4 | 363.7 | 367.2 | 369.3 | 363.7 | 360.2 | 344.8 | 316.8 | 288.0 | 257.2 |
| 30° | 396.6 | 398.7 | 402.2 | 410.7 | 412.8 | 407.2 | 404.3 | 386.1 | 358.1 | 317.5 | 278.9 |
| 32.5° | 436.6 | 439.4 | 442.9 | 459.0 | 466.7 | 460.4 | 456.2 | 440.1 | 405.0 | 360.2 | 311.1 |
| 35° | 480.7 | 480.7 | 492.6 | 512.3 | 524.2 | 520.0 | 521.4 | 504.6 | 466.7 | 410.7 | 350.4 |
| 37.5° | 529.8 | 529.8 | 545.2 | 569.7 | 592.9 | 594.3 | 602.0 | 582.3 | 536.1 | 463.9 | 388.9 |
| 40° | 573.2 | 582.3 | 605.5 | 637.0 | 673.4 | 685.4 | 688.9 | 669.2 | 612.5 | 527.0 | 431.7 |
| 42.5° | 623.7 | 634.2 | 662.9 | 709.9 | 756.1 | 782.1 | 783.5 | 764.5 | 705.7 | 606.9 | 493.3 |
| 45° | 674.8 | 688.2 | 723.2 | 782.8 | 853.5 | 884.4 | 885.1 | 885.8 | 831.8 | 702.2 | 565.5 |
| 47.5° | 733.0 | 743.5 | 789.8 | 860.6 | 951.0 | 1001.4 | 1018.2 | 1020.3 | 946.7 | 801.0 | 628.6 |
| 50° | 796.1 | 799.6 | 863.4 | 963.6 | 1085.5 | 1155.6 | 1165.4 | 1172.4 | 1068.7 | 913.1 | 695.2 |
| 52.5° | 861.3 | 866.2 | 940.4 | 1079.2 | 1232.7 | 1319.6 | 1336.4 | 1339.2 | 1255.8 | 1075.7 | 824.1 |
| 55° | 928.5 | 932.7 | 1028.7 | 1217.2 | 1407.9 | 1522.1 | 1552.2 | 1571.1 | 1440.1 | 1180.1 | 876.0 |
| 57.5° | 997.2 | 1007.7 | 1136.0 | 1360.9 | 1601.3 | 1752.6 | 1773.7 | 1744.9 | 1544.5 | 1233.4 | 890.7 |
| 60° | 1065.9 | 1084.8 | 1252.3 | 1521.4 | 1791.9 | 1908.9 | 1914.5 | 1834.6 | 1595.0 | 1262.8 | 896.3 |
| 62.5° | 1130.4 | 1161.9 | 1374.2 | 1670.0 | 1918.7 | 1989.5 | 1989.5 | 1883.7 | 1667.1 | 1358.1 | 960.8 |
| 65° | 1195.5 | 1233.4 | 1466.0 | 1775.8 | 1988.1 | 2065.9 | 2075.0 | 2015.4 | 1791.9 | 1416.3 | 979.7 |
| 67.5° | 1252.3 | 1310.5 | 1522.1 | 1837.4 | 2049.8 | 2105.1 | 2094.6 | 1996.5 | 1761.8 | 1375.6 | 927.1 |
| 70° | 1315.4 | 1355.3 | 1562.0 | 1836.0 | 1994.4 | 2003.5 | 1997.9 | 1892.1 | 1666.4 | 1299.9 | 859.9 |
| 72.5° | 1340.6 | 1372.8 | 1534.7 | 1740.7 | 1836.7 | 1835.3 | 1825.5 | 1732.3 | 1518.6 | 1182.2 | 767.4 |
| 75° | 1314.7 | 1312.6 | 1408.6 | 1546.6 | 1620.9 | 1621.6 | 1613.9 | 1534.7 | 1328.0 | 1015.4 | 649.6 |
| 77.5° | 1173.8 | 1169.6 | 1211.6 | 1295.7 | 1375.6 | 1382.6 | 1369.3 | 1281.0 | 1105.8 | 840.9 | 543.1 |
| 80° | 947.5 | 929.9 | 961.5 | 1030.1 | 1091.8 | 1085.5 | 1096.7 | 1000.0 | 859.2 | 648.9 | 410.7 |
| 82.5° | 641.2 | 646.8 | 686.1 | 727.4 | 794.0 | 799.6 | 787.7 | 734.4 | 621.6 | 470.9 | 288.7 |
| 85° | 331.5 | 339.2 | 388.9 | 453.4 | 476.5 | 503.2 | 500.4 | 463.2 | 375.6 | 273.3 | 171.7 |
| 87.5° | 58.2 | 50.5 | 70.8 | 107.2 | 130.3 | 155.6 | 154.9 | 110.7 | 86.9 | 58.9 | 36.4 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 | 150.7 |
| 2.5° | 153.5 | 152.8 | 152.1 | 150.7 | 149.3 | 148.6 | 147.9 | 147.2 | 147.2 | 146.5 | 146.5 |
| 5° | 156.3 | 154.9 | 153.5 | 151.4 | 150.0 | 148.6 | 147.2 | 146.5 | 145.8 | 145.1 | 145.1 |
| 7.5° | 159.1 | 157.7 | 154.9 | 152.1 | 149.3 | 147.9 | 147.2 | 145.8 | 145.1 | 144.4 | 144.4 |
| 10° | 164.0 | 161.9 | 157.7 | 153.5 | 150.7 | 148.6 | 146.5 | 145.8 | 145.1 | 145.1 | 144.4 |
| 12.5° | 169.6 | 166.1 | 161.2 | 156.3 | 152.1 | 149.3 | 147.9 | 147.2 | 146.5 | 146.5 | 145.8 |
| 15° | 178.0 | 174.5 | 166.8 | 159.8 | 156.3 | 152.8 | 150.7 | 150.0 | 149.3 | 150.0 | 149.3 |
| 17.5° | 186.4 | 182.2 | 172.4 | 165.4 | 159.8 | 157.0 | 154.9 | 154.2 | 153.5 | 154.9 | 154.9 |
| 20° | 197.6 | 191.3 | 180.8 | 171.7 | 165.4 | 161.9 | 161.2 | 159.8 | 160.5 | 161.2 | 161.2 |
| 22.5° | 209.5 | 201.8 | 189.2 | 178.7 | 173.1 | 168.9 | 168.2 | 168.2 | 168.2 | 168.9 | 169.6 |
| 25° | 224.2 | 214.4 | 198.3 | 187.8 | 180.8 | 177.3 | 176.6 | 176.6 | 177.3 | 178.0 | 178.0 |
| 27.5° | 242.5 | 229.9 | 210.2 | 196.9 | 189.2 | 185.7 | 185.0 | 185.7 | 187.1 | 187.8 | 187.8 |
| 30° | 263.5 | 248.8 | 223.5 | 209.5 | 200.4 | 196.2 | 196.2 | 196.9 | 198.3 | 199.7 | 197.6 |
| 32.5° | 288.7 | 269.8 | 241.8 | 222.8 | 213.0 | 208.8 | 208.8 | 210.2 | 209.5 | 210.2 | 212.3 |
| 35° | 321.0 | 298.5 | 263.5 | 241.1 | 228.5 | 223.5 | 223.5 | 224.2 | 224.2 | 225.7 | 226.4 |
| 37.5° | 355.3 | 328.0 | 286.6 | 262.1 | 248.1 | 241.1 | 239.0 | 239.7 | 241.1 | 240.4 | 241.8 |
| 40° | 393.1 | 360.2 | 313.9 | 283.1 | 268.4 | 260.7 | 256.5 | 256.5 | 255.8 | 255.1 | 254.4 |
| 42.5° | 443.6 | 405.0 | 347.6 | 309.7 | 291.5 | 283.1 | 276.1 | 274.0 | 272.6 | 273.3 | 268.4 |
| 45° | 507.4 | 462.5 | 390.3 | 349.0 | 318.9 | 305.5 | 298.5 | 294.3 | 290.8 | 288.0 | 285.2 |
| 47.5° | 561.3 | 504.6 | 429.6 | 382.6 | 351.1 | 335.0 | 323.8 | 316.8 | 309.7 | 306.9 | 306.9 |
| 50° | 619.5 | 562.0 | 475.1 | 414.2 | 386.1 | 366.5 | 354.6 | 342.0 | 332.2 | 325.9 | 329.4 |
| 52.5° | 732.3 | 659.4 | 543.8 | 474.4 | 422.6 | 400.8 | 386.8 | 370.0 | 356.7 | 348.3 | 349.0 |
| 55° | 765.2 | 688.9 | 580.9 | 514.4 | 469.5 | 448.5 | 426.8 | 404.3 | 384.0 | 372.1 | 372.8 |
| 57.5° | 770.2 | 692.4 | 588.0 | 529.8 | 503.9 | 489.8 | 470.9 | 441.5 | 415.6 | 396.6 | 394.5 |
| 60° | 766.6 | 690.3 | 587.3 | 528.4 | 509.5 | 512.3 | 506.7 | 481.4 | 446.4 | 423.3 | 420.5 |
| 62.5° | 817.8 | 728.8 | 617.4 | 540.3 | 515.8 | 520.0 | 527.0 | 512.3 | 477.9 | 446.4 | 441.5 |
| 65° | 822.0 | 735.8 | 621.6 | 555.7 | 536.8 | 536.8 | 541.0 | 529.8 | 501.8 | 469.5 | 461.8 |
| 67.5° | 772.3 | 695.2 | 588.7 | 531.2 | 521.4 | 532.6 | 547.3 | 540.3 | 513.0 | 489.8 | 482.1 |
| 70° | 716.9 | 641.2 | 545.9 | 491.2 | 486.3 | 501.8 | 525.6 | 531.9 | 519.3 | 500.4 | 497.6 |
| 72.5° | 630.0 | 572.5 | 483.5 | 440.8 | 439.4 | 454.8 | 479.3 | 496.9 | 500.4 | 501.1 | 499.7 |
| 75° | 543.1 | 484.2 | 412.1 | 379.8 | 382.6 | 399.4 | 421.2 | 440.1 | 459.0 | 474.4 | 480.7 |
| 77.5° | 445.0 | 401.5 | 344.1 | 313.2 | 318.9 | 337.8 | 355.3 | 374.2 | 393.8 | 420.5 | 424.0 |
| 80° | 341.3 | 311.8 | 260.0 | 246.7 | 246.0 | 261.4 | 282.4 | 293.6 | 321.7 | 343.4 | 341.3 |
| 82.5° | 241.1 | 217.9 | 188.5 | 176.6 | 179.4 | 189.9 | 203.2 | 210.9 | 231.3 | 243.2 | 246.7 |
| 85° | 142.3 | 132.4 | 115.6 | 104.4 | 107.2 | 117.7 | 119.8 | 129.6 | 134.5 | 142.3 | 140.2 |
| 87.5° | 30.1 | 25.9 | 23.1 | 23.8 | 21.0 | 21.7 | 24.5 | 23.8 | 23.8 | 28.0 | 26.6 |
| 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)