

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: P198224

Luminaire Tested: **TT-C2-LED-E1-T4-PM-CG-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198224
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34707)
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-CG-7060
Description: TOPTIER LED AREA/SITE LUMINAIRE
DRIVE LANE DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: (160) 5700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3699.8 lumens
Efficiency: N/A
Efficacy: 89.4 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

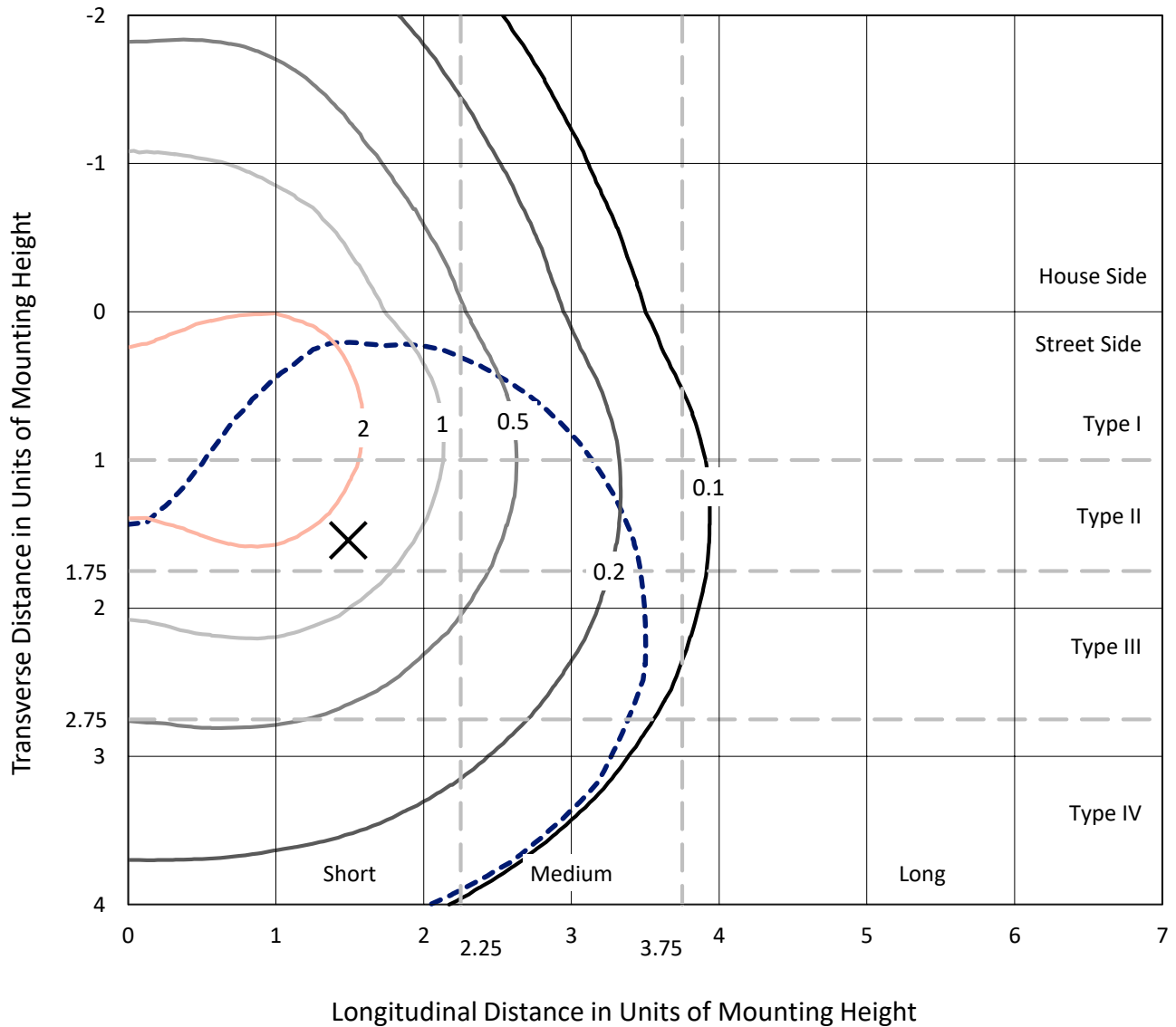


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

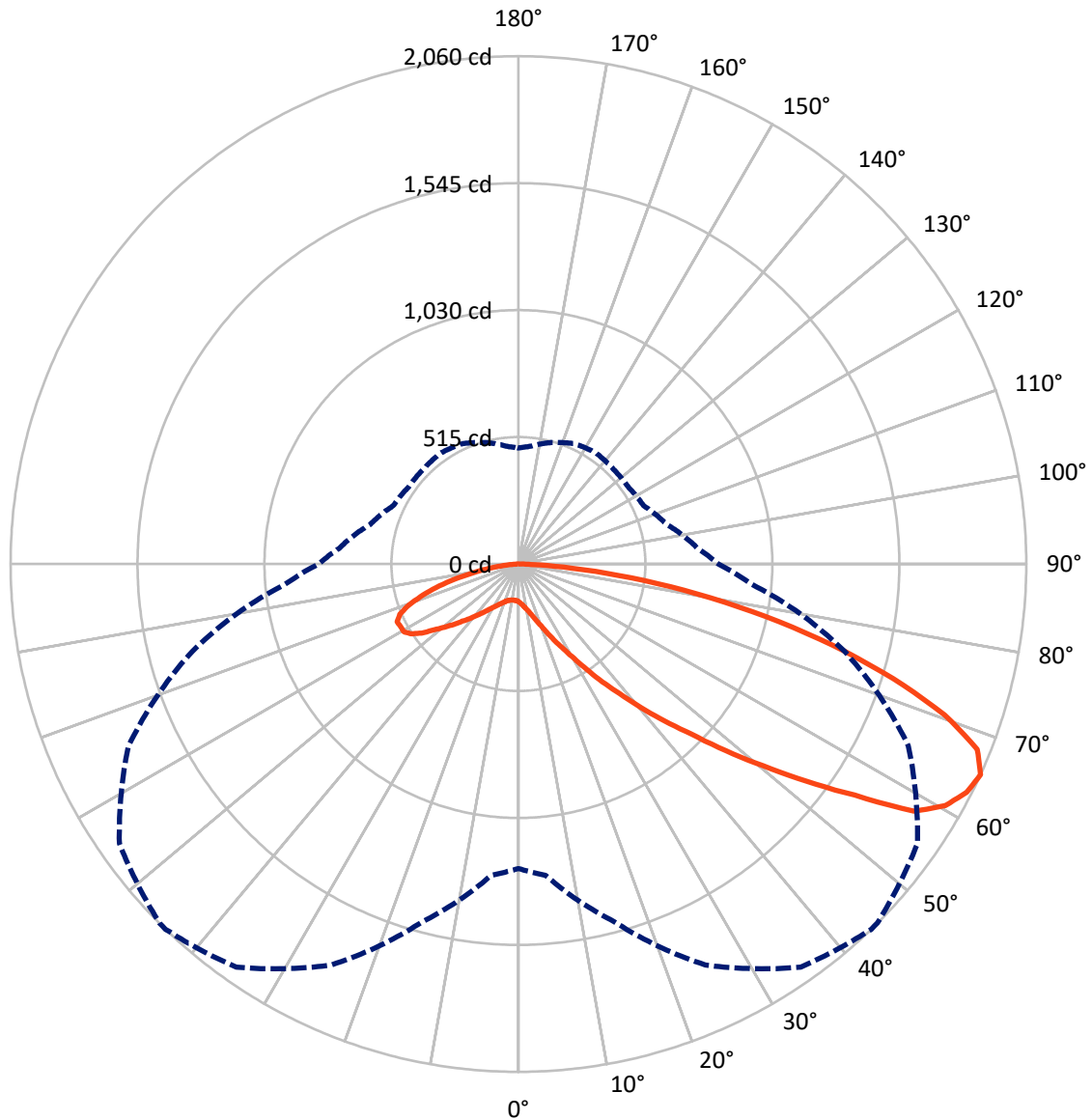


Based on 10 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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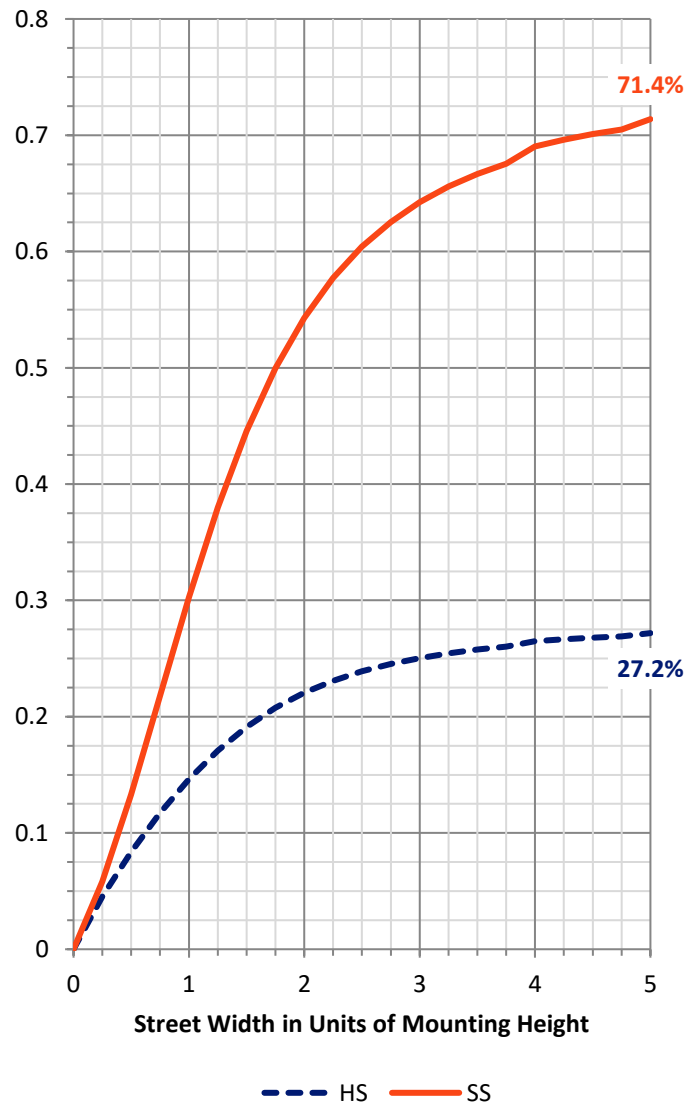
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1014.7 | 0.0 | 1014.7 |
| | % Fixture | 27.4 | 0.0 | 27.4 |
| Street Side | Lumens | 2685.2 | 0.0 | 2685.2 |
| | % Fixture | 72.6 | 0.0 | 72.6 |
| Total | Lumens | 3699.8 | 0.0 | 3699.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 15.3 | 0.4 |
| 10°-20° | 53.9 | 1.5 |
| 20°-30° | 120.8 | 3.3 |
| 30°-40° | 246.3 | 6.7 |
| 40°-50° | 473.6 | 12.8 |
| 50°-60° | 822.8 | 22.2 |
| 60°-70° | 1053.8 | 28.5 |
| 70°-80° | 754.6 | 20.4 |
| 80°-90° | 158.7 | 4.3 |
| 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° | 3699.8 | 100.0 |
| 0°-180° | 3699.8 | 100.0 |



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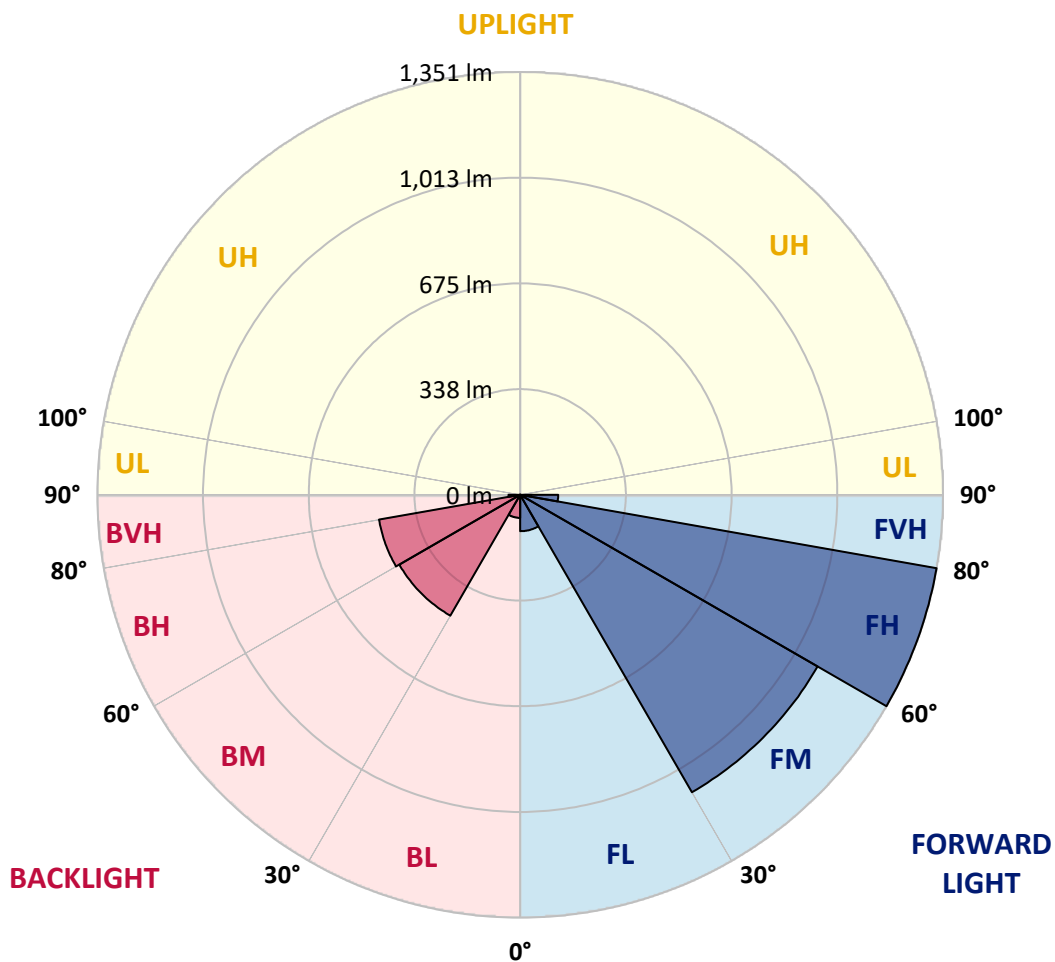
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 116.3 | 3.1 | | | |
| FM | (30°-60°) | 1097.0 | 29.7 | | | |
| FH | (60°-80°) | 1350.6 | 36.5 | | | G1/1800 |
| FVH | (80°-90°) | 121.3 | 3.3 | | | G2/225 |
| BL | (0°-30°) | 73.7 | 2.0 | B0/110 | | |
| BM | (30°-60°) | 445.7 | 12.0 | B1/1000 | | |
| BH | (60°-80°) | 457.8 | 12.4 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 37.4 | 1.0 | | | 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° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 0° | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 |
| 2.5° | 160.7 | 160.7 | 160.7 | 160.0 | 159.3 | 158.6 | 158.6 | 157.9 | 157.2 | 156.5 | 155.1 |
| 5° | 170.4 | 169.7 | 169.7 | 168.3 | 167.6 | 166.2 | 166.2 | 164.8 | 162.7 | 160.7 | 158.6 |
| 7.5° | 180.8 | 181.5 | 180.8 | 179.4 | 177.3 | 176.0 | 175.3 | 172.5 | 169.7 | 166.2 | 162.7 |
| 10° | 193.3 | 194.0 | 194.0 | 192.6 | 190.6 | 187.1 | 187.1 | 182.9 | 178.7 | 174.6 | 168.3 |
| 12.5° | 211.4 | 210.7 | 210.0 | 210.0 | 205.9 | 201.7 | 203.1 | 197.5 | 190.6 | 184.3 | 176.7 |
| 15° | 228.1 | 229.5 | 230.9 | 227.4 | 224.6 | 220.5 | 219.8 | 212.8 | 205.2 | 196.1 | 186.4 |
| 17.5° | 252.5 | 253.9 | 253.2 | 251.8 | 248.3 | 243.4 | 242.0 | 233.7 | 223.3 | 210.7 | 197.5 |
| 20° | 283.8 | 284.5 | 281.7 | 280.3 | 277.5 | 271.2 | 269.2 | 259.4 | 245.5 | 228.1 | 212.1 |
| 22.5° | 318.5 | 316.4 | 315.8 | 314.4 | 313.7 | 306.7 | 306.0 | 291.4 | 271.2 | 251.8 | 228.8 |
| 25° | 348.4 | 350.5 | 351.9 | 354.0 | 353.3 | 346.4 | 346.4 | 329.7 | 305.3 | 278.9 | 249.7 |
| 27.5° | 383.2 | 386.7 | 390.9 | 395.7 | 395.0 | 390.2 | 392.9 | 377.0 | 344.3 | 312.3 | 274.7 |
| 30° | 420.8 | 426.3 | 433.3 | 445.1 | 448.6 | 443.7 | 443.7 | 423.6 | 391.6 | 348.4 | 302.5 |
| 32.5° | 470.8 | 473.6 | 479.9 | 498.7 | 509.1 | 509.1 | 508.4 | 486.1 | 447.2 | 392.9 | 335.9 |
| 35° | 523.0 | 523.7 | 540.4 | 563.3 | 576.6 | 587.0 | 582.1 | 560.6 | 516.7 | 450.0 | 378.3 |
| 37.5° | 576.6 | 577.3 | 600.9 | 628.0 | 657.9 | 666.3 | 670.4 | 651.0 | 594.6 | 513.3 | 424.9 |
| 40° | 630.1 | 639.2 | 667.0 | 704.5 | 749.0 | 765.7 | 763.6 | 746.3 | 678.8 | 582.8 | 475.7 |
| 42.5° | 684.4 | 703.1 | 731.7 | 789.4 | 842.2 | 869.4 | 870.7 | 855.4 | 784.5 | 673.9 | 541.8 |
| 45° | 749.0 | 760.9 | 804.7 | 871.4 | 947.3 | 982.7 | 986.2 | 979.2 | 912.5 | 785.2 | 621.1 |
| 47.5° | 816.5 | 827.6 | 880.5 | 964.6 | 1059.2 | 1130.9 | 1137.1 | 1130.9 | 1048.1 | 879.1 | 692.0 |
| 50° | 890.2 | 894.4 | 957.7 | 1070.4 | 1207.4 | 1286.0 | 1290.1 | 1292.9 | 1180.9 | 1000.1 | 760.9 |
| 52.5° | 959.1 | 960.5 | 1041.8 | 1189.3 | 1364.5 | 1462.6 | 1467.5 | 1461.9 | 1373.6 | 1151.7 | 890.2 |
| 55° | 1027.2 | 1028.6 | 1131.6 | 1325.6 | 1533.5 | 1655.3 | 1685.9 | 1688.6 | 1528.7 | 1249.1 | 925.0 |
| 57.5° | 1090.5 | 1096.8 | 1237.3 | 1461.2 | 1724.1 | 1891.7 | 1889.6 | 1843.0 | 1619.8 | 1286.0 | 932.6 |
| 60° | 1147.6 | 1167.7 | 1338.1 | 1613.5 | 1878.5 | 1989.1 | 2000.2 | 1898.0 | 1651.8 | 1301.9 | 926.4 |
| 62.5° | 1196.2 | 1218.5 | 1433.4 | 1734.5 | 1975.2 | 2040.6 | 2036.4 | 1920.2 | 1697.0 | 1357.6 | 967.4 |
| 65° | 1235.2 | 1267.2 | 1501.6 | 1794.4 | 1996.0 | 2060.0 | 2059.3 | 1975.9 | 1745.0 | 1369.4 | 950.7 |
| 67.5° | 1256.7 | 1306.1 | 1512.0 | 1795.7 | 1980.0 | 2007.2 | 1997.4 | 1893.8 | 1655.3 | 1293.6 | 870.1 |
| 70° | 1268.6 | 1300.6 | 1486.9 | 1716.5 | 1842.3 | 1834.7 | 1836.8 | 1710.9 | 1500.9 | 1167.0 | 773.4 |
| 72.5° | 1225.4 | 1251.9 | 1382.6 | 1545.4 | 1628.1 | 1589.2 | 1607.3 | 1491.8 | 1304.7 | 995.2 | 651.7 |
| 75° | 1118.3 | 1130.9 | 1194.1 | 1297.8 | 1342.3 | 1315.9 | 1315.9 | 1232.4 | 1053.0 | 816.5 | 526.5 |
| 77.5° | 936.1 | 940.3 | 964.6 | 1020.3 | 1032.8 | 1025.1 | 1023.1 | 951.4 | 808.2 | 623.9 | 393.6 |
| 80° | 669.1 | 684.4 | 694.8 | 719.1 | 745.6 | 734.4 | 719.8 | 662.1 | 565.4 | 427.0 | 271.2 |
| 82.5° | 415.2 | 416.6 | 427.0 | 443.0 | 447.2 | 461.8 | 459.7 | 413.8 | 341.5 | 255.2 | 158.6 |
| 85° | 194.0 | 190.6 | 200.3 | 211.4 | 217.7 | 217.0 | 221.9 | 199.6 | 157.9 | 116.8 | 72.3 |
| 87.5° | 30.6 | 43.1 | 45.9 | 45.2 | 50.1 | 50.8 | 52.9 | 48.0 | 32.7 | 23.0 | 17.4 |
| 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° | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 | 152.3 |
| 2.5° | 154.4 | 154.4 | 153.0 | 151.6 | 150.2 | 149.5 | 148.8 | 148.1 | 148.1 | 147.4 | 147.4 |
| 5° | 157.9 | 156.5 | 154.4 | 152.3 | 150.2 | 148.8 | 147.4 | 146.7 | 145.4 | 144.7 | 144.7 |
| 7.5° | 160.7 | 159.3 | 155.8 | 153.0 | 150.2 | 148.1 | 146.1 | 144.7 | 144.0 | 143.3 | 143.3 |
| 10° | 166.2 | 163.4 | 159.3 | 154.4 | 150.9 | 148.1 | 146.1 | 144.7 | 144.0 | 143.3 | 143.3 |
| 12.5° | 173.9 | 169.7 | 162.7 | 157.9 | 153.0 | 149.5 | 147.4 | 146.1 | 144.7 | 144.7 | 144.0 |
| 15° | 182.2 | 177.3 | 169.0 | 161.4 | 155.8 | 152.3 | 149.5 | 148.8 | 147.4 | 147.4 | 147.4 |
| 17.5° | 192.0 | 186.4 | 176.0 | 166.9 | 160.7 | 156.5 | 153.7 | 152.3 | 151.6 | 152.3 | 153.0 |
| 20° | 204.5 | 196.8 | 183.6 | 173.9 | 166.2 | 162.0 | 160.0 | 157.9 | 157.9 | 159.3 | 159.3 |
| 22.5° | 219.1 | 210.0 | 194.0 | 182.2 | 174.6 | 169.0 | 167.6 | 166.2 | 165.5 | 166.9 | 166.9 |
| 25° | 234.4 | 223.9 | 205.2 | 192.0 | 182.9 | 178.0 | 176.7 | 175.3 | 176.0 | 176.7 | 174.6 |
| 27.5° | 258.0 | 243.4 | 219.1 | 203.8 | 193.3 | 188.5 | 186.4 | 185.7 | 186.4 | 187.1 | 185.7 |
| 30° | 280.3 | 262.9 | 235.8 | 217.7 | 204.5 | 199.6 | 197.5 | 197.5 | 198.2 | 198.2 | 198.2 |
| 32.5° | 310.9 | 289.3 | 254.5 | 233.0 | 219.8 | 213.5 | 212.8 | 212.8 | 211.4 | 212.1 | 211.4 |
| 35° | 347.0 | 321.3 | 280.3 | 253.9 | 238.6 | 231.6 | 229.5 | 228.1 | 228.1 | 228.1 | 228.1 |
| 37.5° | 386.0 | 354.7 | 306.7 | 277.5 | 260.1 | 251.8 | 247.6 | 245.5 | 246.2 | 246.2 | 244.8 |
| 40° | 429.8 | 393.6 | 338.0 | 301.8 | 285.8 | 273.3 | 268.5 | 266.4 | 265.7 | 264.3 | 260.8 |
| 42.5° | 488.2 | 442.3 | 376.3 | 333.1 | 309.5 | 300.4 | 291.4 | 287.2 | 283.8 | 283.1 | 277.5 |
| 45° | 557.1 | 507.7 | 425.6 | 377.6 | 346.4 | 326.2 | 317.1 | 310.2 | 303.9 | 301.8 | 297.7 |
| 47.5° | 614.1 | 554.3 | 469.5 | 415.9 | 381.1 | 360.3 | 345.7 | 335.2 | 326.9 | 322.0 | 323.4 |
| 50° | 678.1 | 611.3 | 519.5 | 452.1 | 418.0 | 395.7 | 381.8 | 364.4 | 351.9 | 344.3 | 347.0 |
| 52.5° | 783.1 | 708.7 | 589.1 | 514.7 | 456.2 | 434.0 | 415.9 | 395.7 | 379.0 | 368.6 | 374.2 |
| 55° | 812.3 | 734.4 | 622.5 | 554.3 | 509.1 | 484.8 | 457.6 | 432.6 | 408.9 | 395.0 | 395.0 |
| 57.5° | 810.9 | 732.3 | 625.2 | 565.4 | 539.0 | 521.6 | 501.4 | 470.1 | 439.5 | 419.4 | 418.0 |
| 60° | 800.5 | 721.9 | 618.3 | 557.8 | 537.6 | 541.1 | 532.7 | 506.3 | 470.1 | 442.3 | 438.2 |
| 62.5° | 827.6 | 747.6 | 636.4 | 565.4 | 536.2 | 539.7 | 546.7 | 531.4 | 495.9 | 461.1 | 456.9 |
| 65° | 810.2 | 729.6 | 621.8 | 559.9 | 543.9 | 544.6 | 549.4 | 538.3 | 509.8 | 477.8 | 470.8 |
| 67.5° | 739.3 | 668.4 | 572.4 | 518.8 | 508.4 | 520.9 | 536.2 | 532.7 | 508.4 | 486.8 | 478.5 |
| 70° | 649.6 | 587.0 | 504.9 | 460.4 | 452.8 | 470.8 | 496.6 | 501.4 | 494.5 | 480.6 | 477.8 |
| 72.5° | 550.1 | 495.2 | 425.6 | 392.3 | 389.5 | 403.4 | 429.1 | 445.8 | 450.7 | 456.9 | 456.9 |
| 75° | 441.6 | 398.5 | 338.7 | 315.8 | 315.8 | 331.1 | 351.9 | 373.5 | 386.7 | 403.4 | 408.2 |
| 77.5° | 335.2 | 297.7 | 255.2 | 235.8 | 235.8 | 249.7 | 265.7 | 283.1 | 305.3 | 328.3 | 324.8 |
| 80° | 229.5 | 205.2 | 174.6 | 164.8 | 162.7 | 170.4 | 184.3 | 196.1 | 215.6 | 230.9 | 239.9 |
| 82.5° | 131.4 | 123.1 | 105.0 | 96.7 | 96.0 | 105.7 | 115.5 | 116.8 | 130.1 | 139.1 | 141.9 |
| 85° | 62.6 | 54.9 | 51.5 | 45.9 | 46.6 | 48.7 | 52.2 | 54.9 | 58.4 | 61.9 | 61.9 |
| 87.5° | 13.9 | 13.2 | 11.8 | 12.5 | 12.5 | 11.1 | 12.5 | 11.8 | 13.2 | 13.9 | 12.5 |
| 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)