

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: P198470

Luminaire Tested: **TT-C4-LED-E1-WQ-LWR-LW-8030-UPL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198470  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: TT-C4-LED-E1-WQ-LWR-LW-8030-UPL  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
WIDE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR  
Light Source: (160) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5545.8 lumens  
Efficiency: N/A  
Efficacy: 73.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U4 - G2

Input Watts (W): 75.4  
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



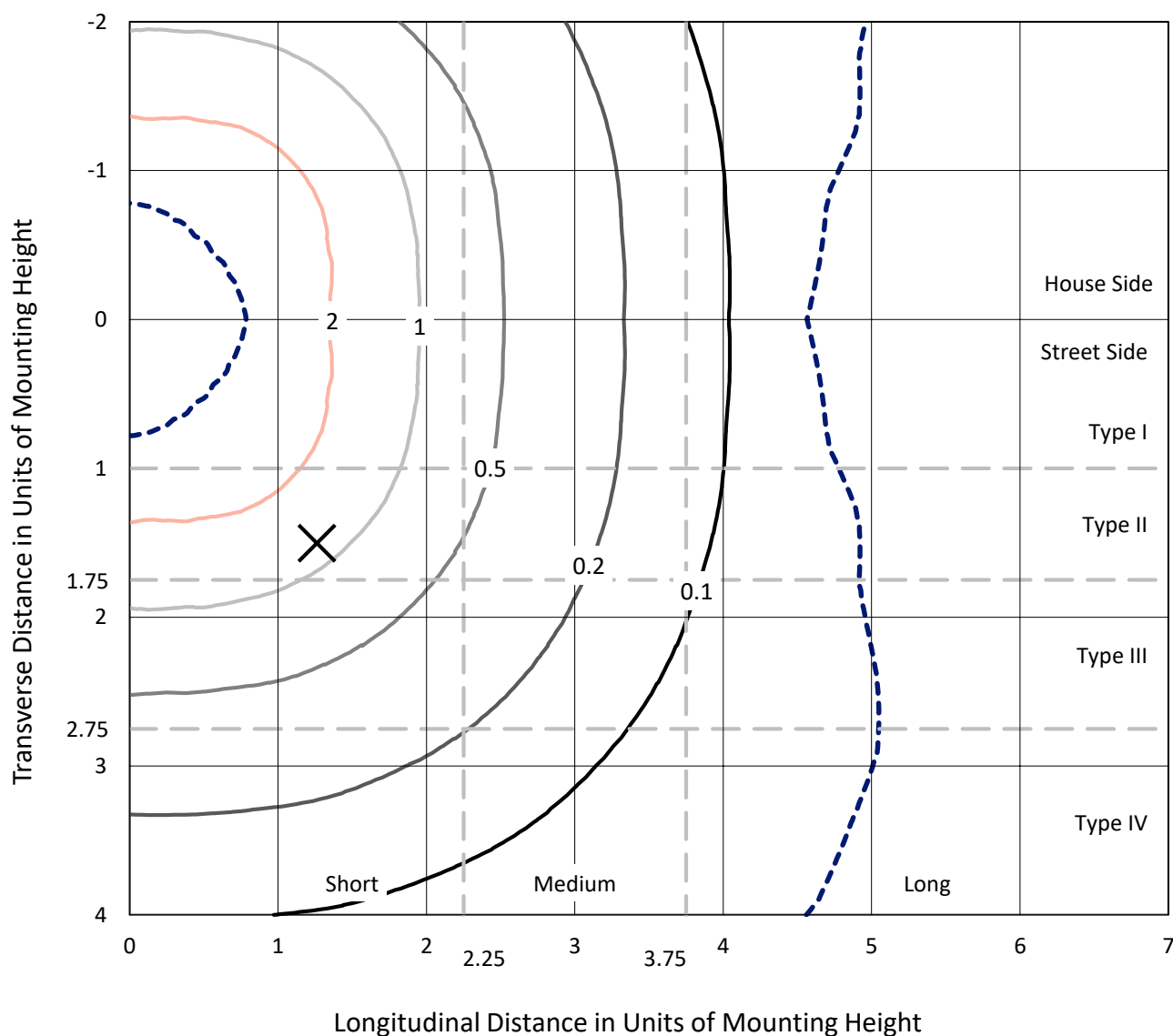
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

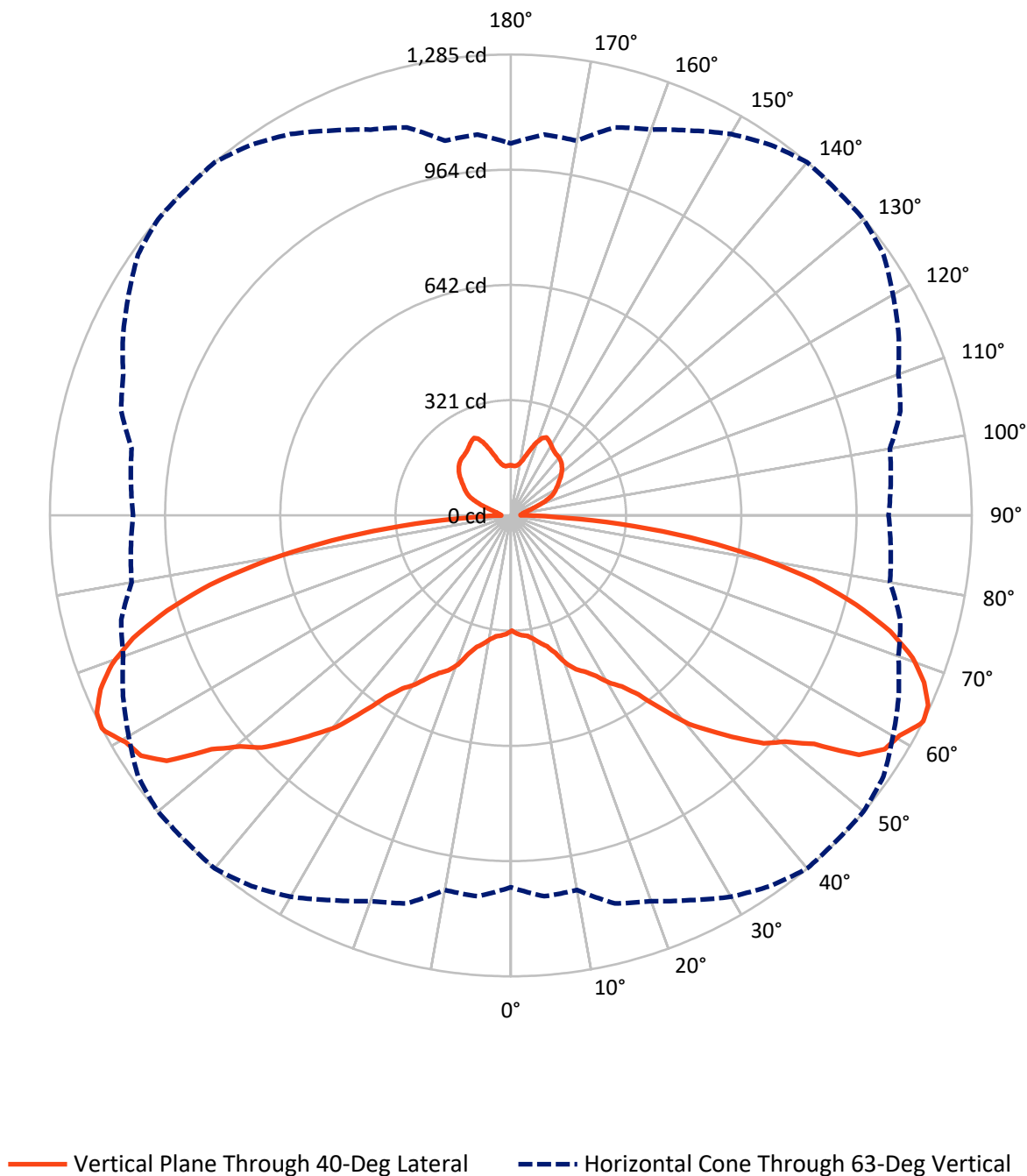


Based on 10 foot mounting height. Maximum calculated value = 3.6 fc  
 Type V - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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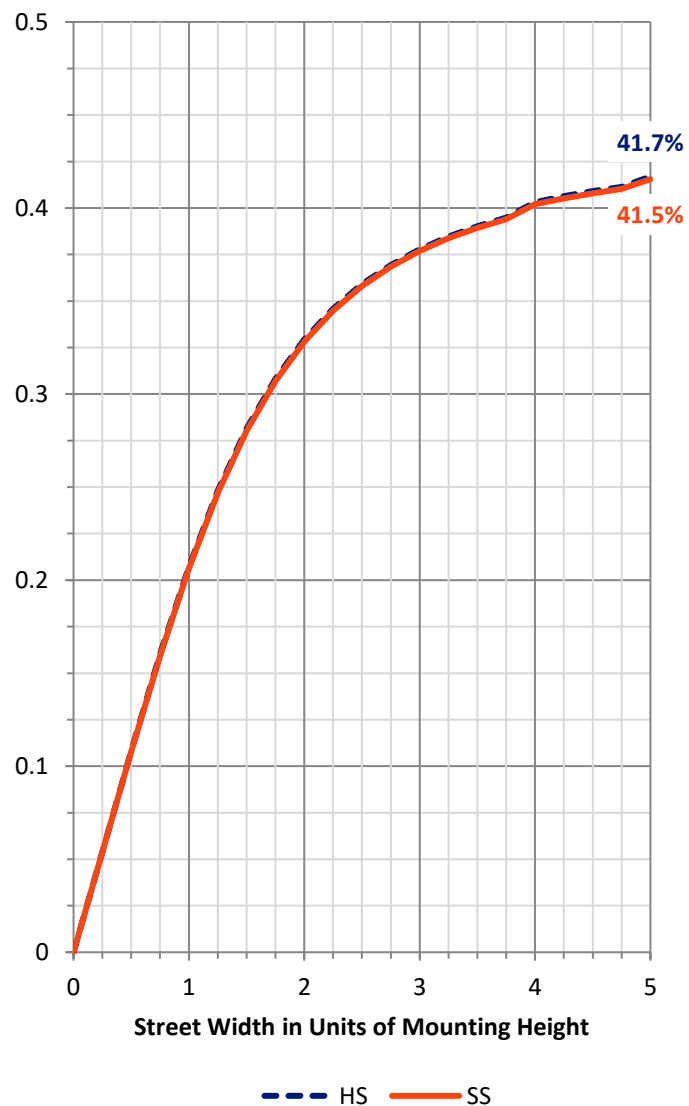
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2360.9   | 412.0  | 2772.9 |
|                    | % Fixture | 42.6     | 7.4    | 50.0   |
| <b>Street Side</b> | Lumens    | 2360.9   | 412.0  | 2772.9 |
|                    | % Fixture | 42.6     | 7.4    | 50.0   |
| <b>Total</b>       | Lumens    | 4721.8   | 824.0  | 5545.8 |
|                    | % Fixture | 85.1     | 14.9   | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 32.4   | 0.6       |
| 10°-20°   | 110.2  | 2.0       |
| 20°-30°   | 224.1  | 4.0       |
| 30°-40°   | 386.2  | 7.0       |
| 40°-50°   | 650.5  | 11.7      |
| 50°-60°   | 957.9  | 17.3      |
| 60°-70°   | 1139.1 | 20.5      |
| 70°-80°   | 922.1  | 16.6      |
| 80°-90°   | 299.4  | 5.4       |
| 90°-100°  | 38.3   | 0.7       |
| 100°-110° | 59.4   | 1.1       |
| 110°-120° | 119.3  | 2.2       |
| 120°-130° | 148.7  | 2.7       |
| 130°-140° | 153.2  | 2.8       |
| 140°-150° | 136.0  | 2.5       |
| 150°-160° | 103.7  | 1.9       |
| 160°-170° | 51.8   | 0.9       |
| 170°-180° | 13.6   | 0.2       |
| 0°-90°    | 4721.8 | 85.1      |
| 0°-180°   | 5545.8 | 100.0     |

**Coefficient of Utilization**



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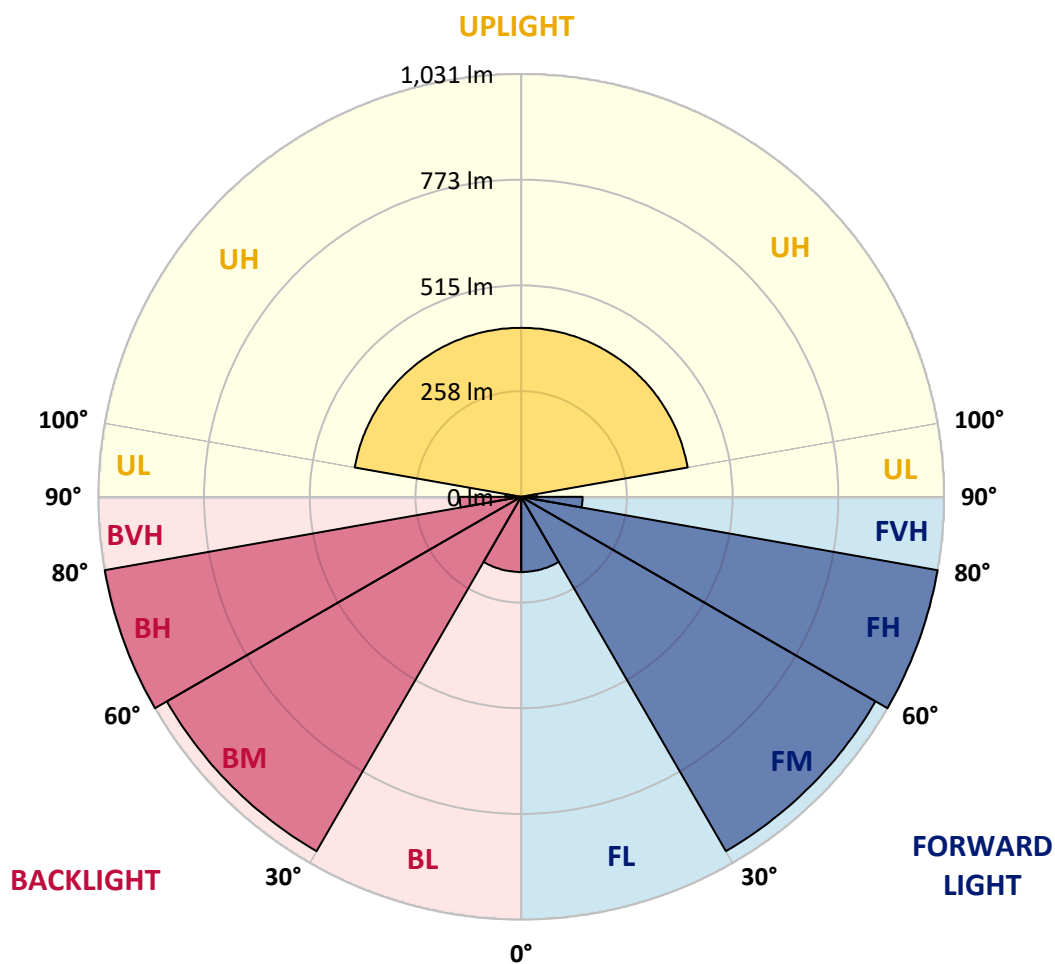
CATALOG NUMBER: TT-C4-LED-E1-WQ-LWR-LW-8030-UPL

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |        |         |
|------|-------------|--------|-----------|-------------------------|--------|---------|
|      |             |        |           | B                       | U      | G       |
| FL   | (0°-30°)    | 183.3  | 3.3       |                         |        |         |
| FM   | (30°-60°)   | 997.3  | 18.0      |                         |        |         |
| FH   | (60°-80°)   | 1030.6 | 18.6      |                         |        | G1/1800 |
| FVH  | (80°-90°)   | 149.7  | 2.7       |                         |        | G2/225  |
| BL   | (0°-30°)    | 183.3  | 3.3       | B1/500                  |        |         |
| BM   | (30°-60°)   | 997.3  | 18.0      | B1/1000                 |        |         |
| BH   | (60°-80°)   | 1030.6 | 18.6      | B3/2500                 |        | G1/1800 |
| BVH  | (80°-90°)   | 149.7  | 2.7       |                         |        | G2/225  |
| UL   | (90°-100°)  | 38.3   | 0.7       |                         | U2/50  |         |
| UH   | (100°-180°) | 412.0  | 7.4       |                         | U3/500 |         |

**BUG Rating: B3-U4-G2**

Type V Short



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  |
| 2.5°   | 331.3  | 331.3  | 331.3  | 331.3  | 331.3  | 331.3  | 330.3  | 331.3  | 330.3  | 330.3  | 330.3  |
| 5°     | 337.7  | 337.7  | 337.7  | 337.7  | 336.7  | 336.7  | 335.8  | 335.8  | 335.8  | 334.9  | 335.8  |
| 7.5°   | 340.4  | 340.4  | 340.4  | 340.4  | 339.5  | 339.5  | 339.5  | 339.5  | 339.5  | 339.5  | 339.5  |
| 10°    | 346.7  | 346.7  | 347.6  | 348.5  | 350.3  | 350.3  | 350.3  | 351.3  | 350.3  | 350.3  | 350.3  |
| 12.5°  | 360.4  | 359.5  | 361.3  | 363.1  | 365.0  | 365.9  | 365.9  | 365.9  | 365.0  | 365.0  | 365.9  |
| 15°    | 379.6  | 377.7  | 378.7  | 379.6  | 380.5  | 381.4  | 381.4  | 380.5  | 378.7  | 378.7  | 378.7  |
| 17.5°  | 404.2  | 401.5  | 400.6  | 399.7  | 399.7  | 401.5  | 403.3  | 402.4  | 403.3  | 402.4  | 403.3  |
| 20°    | 433.5  | 431.6  | 431.6  | 431.6  | 432.5  | 436.2  | 439.9  | 441.7  | 440.8  | 438.9  | 441.7  |
| 22.5°  | 452.5  | 453.5  | 458.0  | 457.1  | 456.2  | 459.9  | 464.4  | 468.1  | 466.2  | 463.5  | 465.3  |
| 25°    | 473.6  | 473.6  | 479.9  | 482.7  | 479.9  | 479.9  | 481.8  | 484.5  | 482.7  | 480.9  | 482.7  |
| 27.5°  | 497.3  | 497.3  | 500.0  | 502.8  | 501.0  | 501.0  | 503.7  | 508.3  | 507.3  | 506.4  | 507.3  |
| 30°    | 525.6  | 522.0  | 519.2  | 523.8  | 528.4  | 529.3  | 532.0  | 539.3  | 541.1  | 540.2  | 542.1  |
| 32.5°  | 552.0  | 546.5  | 548.4  | 551.1  | 561.1  | 564.8  | 563.9  | 569.4  | 568.4  | 565.7  | 569.4  |
| 35°    | 577.6  | 584.0  | 587.6  | 593.1  | 596.8  | 601.3  | 601.3  | 611.4  | 613.2  | 610.5  | 613.2  |
| 37.5°  | 626.9  | 629.6  | 639.7  | 640.6  | 645.1  | 662.4  | 664.3  | 678.0  | 685.3  | 681.6  | 682.5  |
| 40°    | 694.4  | 693.5  | 700.8  | 711.7  | 720.9  | 742.7  | 749.1  | 758.2  | 764.6  | 761.9  | 765.5  |
| 42.5°  | 749.1  | 741.8  | 747.3  | 771.0  | 781.1  | 797.5  | 805.7  | 810.3  | 822.2  | 818.5  | 823.1  |
| 45°    | 788.4  | 791.1  | 798.4  | 822.2  | 828.6  | 842.2  | 861.3  | 869.6  | 885.1  | 880.5  | 883.3  |
| 47.5°  | 826.7  | 839.4  | 845.8  | 856.8  | 876.9  | 895.1  | 918.9  | 927.1  | 948.9  | 947.1  | 944.4  |
| 50°    | 876.9  | 886.9  | 894.2  | 902.4  | 929.9  | 959.9  | 980.0  | 983.6  | 990.9  | 985.5  | 994.6  |
| 52.5°  | 930.8  | 929.9  | 936.2  | 959.0  | 997.3  | 1009.2 | 1026.6 | 1042.9 | 1058.4 | 1063.9 | 1058.4 |
| 55°    | 1001.9 | 979.1  | 1005.6 | 1038.3 | 1054.8 | 1083.1 | 1125.1 | 1147.9 | 1178.0 | 1182.6 | 1173.4 |
| 57.5°  | 1031.1 | 1031.1 | 1058.4 | 1077.6 | 1107.8 | 1157.9 | 1202.7 | 1213.6 | 1229.1 | 1220.9 | 1230.1 |
| 60°    | 1027.5 | 1062.1 | 1062.1 | 1095.9 | 1145.1 | 1189.9 | 1206.3 | 1224.6 | 1245.5 | 1244.6 | 1244.6 |
| 62.5°  | 1032.1 | 1065.7 | 1056.6 | 1115.1 | 1145.1 | 1181.6 | 1218.2 | 1251.9 | 1281.1 | 1280.2 | 1279.3 |
| 63°    | 1036.6 | 1065.7 | 1060.3 | 1119.6 | 1144.2 | 1183.5 | 1227.3 | 1261.0 | 1284.8 | 1282.9 | 1283.8 |
| 65°    | 1050.2 | 1042.0 | 1074.9 | 1112.3 | 1140.5 | 1199.0 | 1235.4 | 1261.9 | 1278.4 | 1277.5 | 1277.5 |
| 67.5°  | 1024.7 | 1005.6 | 1052.0 | 1066.7 | 1120.6 | 1172.5 | 1200.8 | 1231.0 | 1242.7 | 1242.7 | 1240.9 |
| 70°    | 946.2  | 954.4  | 986.4  | 1010.1 | 1064.8 | 1111.4 | 1135.2 | 1173.4 | 1188.0 | 1188.0 | 1187.1 |
| 72.5°  | 866.8  | 880.5  | 902.4  | 936.2  | 988.2  | 1024.7 | 1053.0 | 1087.7 | 1106.8 | 1105.9 | 1105.9 |
| 75°    | 765.5  | 778.3  | 803.9  | 835.9  | 881.4  | 917.1  | 939.8  | 972.7  | 994.6  | 1002.8 | 993.7  |
| 77.5°  | 651.5  | 655.1  | 678.9  | 711.7  | 751.8  | 776.5  | 811.2  | 843.1  | 861.3  | 860.4  | 857.7  |
| 80°    | 512.8  | 517.4  | 537.5  | 574.8  | 596.8  | 626.0  | 657.9  | 675.2  | 690.7  | 690.7  | 688.9  |
| 82.5°  | 354.0  | 364.0  | 384.1  | 408.8  | 431.6  | 457.1  | 474.5  | 491.8  | 504.6  | 503.7  | 501.0  |
| 85°    | 199.8  | 204.4  | 223.6  | 239.1  | 256.4  | 272.8  | 284.7  | 295.6  | 306.6  | 306.6  | 304.8  |
| 87.5°  | 60.2   | 53.8   | 64.8   | 71.1   | 80.3   | 88.5   | 94.0   | 104.9  | 112.2  | 104.0  | 104.0  |
| 90°    | 36.0   | 36.0   | 36.0   | 36.0   | 35.0   | 34.0   | 31.0   | 29.0   | 27.0   | 26.0   | 26.0   |
| 92.5°  | 40.0   | 39.0   | 39.0   | 38.0   | 36.0   | 34.0   | 32.0   | 29.0   | 27.0   | 27.0   | 27.0   |
| 95°    | 44.0   | 43.0   | 42.0   | 41.0   | 38.0   | 36.0   | 34.0   | 32.0   | 31.0   | 30.0   | 30.0   |
| 97.5°  | 42.0   | 42.0   | 41.0   | 40.0   | 38.0   | 37.0   | 36.0   | 35.0   | 34.0   | 33.0   | 32.0   |
| 100°   | 45.0   | 45.0   | 45.0   | 44.0   | 42.0   | 40.0   | 39.0   | 38.0   | 36.0   | 36.0   | 35.0   |
| 102.5° | 51.0   | 51.0   | 50.0   | 49.0   | 47.0   | 46.0   | 45.0   | 44.0   | 42.0   | 42.0   | 42.0   |
| 105°   | 60.0   | 60.0   | 59.0   | 57.0   | 55.0   | 54.0   | 53.0   | 53.0   | 51.0   | 52.0   | 52.0   |
| 107.5° | 72.0   | 72.0   | 72.0   | 70.0   | 68.0   | 67.0   | 66.0   | 66.0   | 66.0   | 68.0   | 68.0   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 86.0  | 86.0  | 87.0  | 89.0  | 86.0  | 85.0  | 85.0  | 86.0  | 86.0  | 87.0  | 86.0  |
| 112.5° | 101.0 | 102.0 | 104.0 | 108.0 | 106.0 | 107.0 | 107.0 | 110.0 | 108.0 | 107.0 | 103.0 |
| 115°   | 121.0 | 122.0 | 123.0 | 128.0 | 126.0 | 128.0 | 127.0 | 129.0 | 126.0 | 124.0 | 120.0 |
| 117.5° | 140.0 | 141.0 | 141.0 | 144.0 | 141.0 | 141.0 | 140.0 | 141.0 | 138.0 | 136.0 | 135.0 |
| 120°   | 152.0 | 153.0 | 154.0 | 155.0 | 151.0 | 149.0 | 147.0 | 149.0 | 147.0 | 147.0 | 148.0 |
| 122.5° | 161.0 | 162.0 | 163.0 | 164.0 | 159.0 | 154.0 | 153.0 | 155.0 | 156.0 | 158.0 | 158.0 |
| 125°   | 169.0 | 169.0 | 170.0 | 172.0 | 168.0 | 163.0 | 160.0 | 165.0 | 166.0 | 168.0 | 167.0 |
| 127.5° | 177.0 | 177.0 | 179.0 | 181.0 | 177.0 | 171.0 | 170.0 | 176.0 | 177.0 | 178.0 | 175.0 |
| 130°   | 187.0 | 188.0 | 190.0 | 191.0 | 185.0 | 179.0 | 179.0 | 186.0 | 187.0 | 186.0 | 183.0 |
| 132.5° | 198.0 | 199.0 | 200.0 | 201.0 | 193.0 | 186.0 | 187.0 | 193.0 | 195.0 | 195.0 | 191.0 |
| 135°   | 210.0 | 210.0 | 211.0 | 209.0 | 199.0 | 192.0 | 193.0 | 199.0 | 202.0 | 201.0 | 197.0 |
| 137.5° | 221.0 | 219.0 | 217.0 | 213.0 | 203.0 | 197.0 | 198.0 | 205.0 | 207.0 | 208.0 | 203.0 |
| 140°   | 229.0 | 226.0 | 222.0 | 216.0 | 205.0 | 200.0 | 201.0 | 207.0 | 210.0 | 213.0 | 212.0 |
| 142.5° | 235.0 | 231.0 | 225.0 | 218.0 | 206.0 | 201.0 | 202.0 | 208.0 | 212.0 | 218.0 | 218.0 |
| 145°   | 235.0 | 230.0 | 225.0 | 218.0 | 207.0 | 202.0 | 204.0 | 211.0 | 215.0 | 223.0 | 225.0 |
| 147.5° | 230.0 | 227.0 | 223.0 | 219.0 | 210.0 | 207.0 | 209.0 | 216.0 | 220.0 | 229.0 | 233.0 |
| 150°   | 224.0 | 221.0 | 219.0 | 220.0 | 215.0 | 214.0 | 216.0 | 222.0 | 227.0 | 235.0 | 239.0 |
| 152.5° | 216.0 | 214.0 | 216.0 | 221.0 | 220.0 | 220.0 | 224.0 | 230.0 | 234.0 | 241.0 | 241.0 |
| 155°   | 208.0 | 207.0 | 211.0 | 219.0 | 222.0 | 224.0 | 229.0 | 237.0 | 239.0 | 243.0 | 239.0 |
| 157.5° | 203.0 | 203.0 | 207.0 | 216.0 | 220.0 | 224.0 | 229.0 | 234.0 | 232.0 | 235.0 | 230.0 |
| 160°   | 199.0 | 198.0 | 203.0 | 210.0 | 212.0 | 213.0 | 216.0 | 219.0 | 216.0 | 219.0 | 216.0 |
| 162.5° | 185.0 | 184.0 | 188.0 | 193.0 | 194.0 | 193.0 | 196.0 | 198.0 | 195.0 | 198.0 | 196.0 |
| 165°   | 169.0 | 167.0 | 169.0 | 173.0 | 173.0 | 173.0 | 175.0 | 176.0 | 174.0 | 177.0 | 175.0 |
| 167.5° | 154.0 | 152.0 | 153.0 | 156.0 | 156.0 | 155.0 | 157.0 | 159.0 | 157.0 | 159.0 | 158.0 |
| 170°   | 142.0 | 141.0 | 142.0 | 145.0 | 144.0 | 144.0 | 146.0 | 147.0 | 146.0 | 147.0 | 147.0 |
| 172.5° | 137.0 | 135.0 | 136.0 | 139.0 | 139.0 | 138.0 | 140.0 | 141.0 | 140.0 | 141.0 | 140.0 |
| 175°   | 136.0 | 134.0 | 135.0 | 137.0 | 137.0 | 137.0 | 138.0 | 139.0 | 138.0 | 139.0 | 138.0 |
| 177.5° | 137.0 | 136.0 | 136.0 | 139.0 | 138.0 | 138.0 | 139.0 | 140.0 | 139.0 | 139.0 | 138.0 |
| 180°   | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  | 321.2  |
| 2.5°   | 331.3  | 331.3  | 331.3  | 331.3  | 331.3  | 331.3  | 331.3  | 331.3  |
| 5°     | 335.8  | 336.7  | 336.7  | 337.7  | 337.7  | 337.7  | 337.7  | 337.7  |
| 7.5°   | 339.5  | 339.5  | 339.5  | 339.5  | 340.4  | 340.4  | 340.4  | 340.4  |
| 10°    | 350.3  | 351.3  | 350.3  | 350.3  | 348.5  | 347.6  | 347.6  | 347.6  |
| 12.5°  | 365.9  | 366.8  | 366.8  | 365.0  | 363.1  | 361.3  | 360.4  | 359.5  |
| 15°    | 380.5  | 383.2  | 381.4  | 380.5  | 378.7  | 379.6  | 379.6  | 380.5  |
| 17.5°  | 403.3  | 404.2  | 401.5  | 399.7  | 398.8  | 400.6  | 402.4  | 403.3  |
| 20°    | 442.6  | 440.8  | 435.3  | 433.5  | 431.6  | 431.6  | 433.5  | 433.5  |
| 22.5°  | 467.2  | 462.6  | 458.9  | 457.1  | 457.1  | 457.1  | 454.4  | 450.7  |
| 25°    | 484.5  | 481.8  | 479.0  | 480.9  | 482.7  | 479.9  | 473.6  | 472.6  |
| 27.5°  | 508.3  | 502.8  | 501.9  | 501.0  | 501.9  | 500.0  | 499.1  | 495.5  |
| 30°    | 539.3  | 532.0  | 530.2  | 528.4  | 522.9  | 521.0  | 522.9  | 525.6  |
| 32.5°  | 568.4  | 563.9  | 565.7  | 562.1  | 552.0  | 548.4  | 550.2  | 549.3  |
| 35°    | 610.5  | 602.2  | 602.2  | 594.9  | 592.2  | 591.3  | 584.0  | 577.6  |
| 37.5°  | 677.0  | 666.1  | 663.3  | 646.9  | 639.7  | 641.5  | 631.5  | 624.2  |
| 40°    | 758.2  | 750.0  | 742.7  | 724.5  | 714.5  | 701.7  | 695.3  | 695.3  |
| 42.5°  | 812.1  | 806.6  | 796.6  | 783.8  | 772.8  | 750.9  | 742.7  | 747.3  |
| 45°    | 871.4  | 864.1  | 843.1  | 830.4  | 820.3  | 804.8  | 795.7  | 786.5  |
| 47.5°  | 931.7  | 921.6  | 897.0  | 880.5  | 856.8  | 852.2  | 842.2  | 829.5  |
| 50°    | 984.6  | 980.9  | 963.5  | 936.2  | 906.1  | 898.8  | 889.7  | 877.8  |
| 52.5°  | 1049.3 | 1027.5 | 1012.9 | 1001.0 | 967.2  | 943.5  | 930.8  | 936.2  |
| 55°    | 1155.2 | 1127.9 | 1090.4 | 1053.0 | 1045.7 | 1017.4 | 985.5  | 1002.8 |
| 57.5°  | 1216.4 | 1200.8 | 1172.5 | 1113.2 | 1084.0 | 1064.8 | 1043.8 | 1028.4 |
| 60°    | 1231.0 | 1202.7 | 1196.3 | 1151.5 | 1105.0 | 1064.8 | 1073.1 | 1036.6 |
| 62.5°  | 1259.2 | 1220.9 | 1185.3 | 1149.7 | 1121.5 | 1066.7 | 1064.8 | 1045.7 |
| 63°    | 1268.3 | 1230.1 | 1192.6 | 1149.7 | 1124.2 | 1073.1 | 1063.0 | 1053.0 |
| 65°    | 1266.5 | 1233.7 | 1205.4 | 1149.7 | 1111.4 | 1091.3 | 1042.0 | 1064.8 |
| 67.5°  | 1231.9 | 1204.5 | 1171.6 | 1133.3 | 1069.4 | 1053.9 | 1019.3 | 1023.8 |
| 70°    | 1176.2 | 1140.5 | 1109.6 | 1074.0 | 1022.9 | 987.3  | 966.3  | 948.9  |
| 72.5°  | 1089.5 | 1057.5 | 1024.7 | 991.9  | 946.2  | 903.4  | 888.7  | 869.6  |
| 75°    | 974.5  | 943.5  | 913.4  | 882.4  | 839.4  | 801.2  | 785.6  | 771.9  |
| 77.5°  | 843.1  | 816.7  | 773.8  | 744.5  | 720.0  | 678.9  | 664.3  | 649.6  |
| 80°    | 672.5  | 659.7  | 628.7  | 590.4  | 577.6  | 537.5  | 526.5  | 507.3  |
| 82.5°  | 489.1  | 476.3  | 451.6  | 425.2  | 409.7  | 388.7  | 370.4  | 357.7  |
| 85°    | 298.4  | 284.7  | 271.9  | 248.1  | 239.1  | 223.6  | 209.0  | 201.7  |
| 87.5°  | 107.7  | 96.7   | 86.7   | 75.7   | 70.2   | 59.3   | 57.4   | 52.0   |
| 90°    | 28.0   | 30.0   | 32.0   | 33.0   | 34.0   | 34.0   | 34.0   | 34.0   |
| 92.5°  | 28.0   | 30.0   | 32.0   | 33.0   | 35.0   | 36.0   | 36.0   | 36.0   |
| 95°    | 30.0   | 32.0   | 34.0   | 35.0   | 37.0   | 38.0   | 39.0   | 38.0   |
| 97.5°  | 33.0   | 34.0   | 34.0   | 35.0   | 36.0   | 36.0   | 36.0   | 36.0   |
| 100°   | 36.0   | 37.0   | 38.0   | 38.0   | 38.0   | 38.0   | 37.0   | 37.0   |
| 102.5° | 43.0   | 44.0   | 44.0   | 42.0   | 42.0   | 41.0   | 41.0   | 41.0   |
| 105°   | 54.0   | 54.0   | 53.0   | 51.0   | 49.0   | 48.0   | 48.0   | 49.0   |
| 107.5° | 68.0   | 68.0   | 66.0   | 63.0   | 60.0   | 59.0   | 59.0   | 60.0   |

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**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 84.0  | 83.0  | 84.0  | 81.0  | 78.0  | 76.0  | 74.0  | 75.0  |
| 112.5° | 102.0 | 102.0 | 105.0 | 103.0 | 100.0 | 98.0  | 95.0  | 94.0  |
| 115°   | 121.0 | 123.0 | 125.0 | 124.0 | 123.0 | 121.0 | 116.0 | 113.0 |
| 117.5° | 138.0 | 140.0 | 141.0 | 139.0 | 139.0 | 139.0 | 133.0 | 129.0 |
| 120°   | 150.0 | 151.0 | 153.0 | 148.0 | 148.0 | 148.0 | 145.0 | 142.0 |
| 122.5° | 159.0 | 160.0 | 162.0 | 156.0 | 155.0 | 156.0 | 153.0 | 150.0 |
| 125°   | 167.0 | 167.0 | 168.0 | 164.0 | 163.0 | 164.0 | 160.0 | 158.0 |
| 127.5° | 176.0 | 175.0 | 175.0 | 173.0 | 173.0 | 173.0 | 166.0 | 163.0 |
| 130°   | 183.0 | 182.0 | 183.0 | 181.0 | 184.0 | 181.0 | 171.0 | 169.0 |
| 132.5° | 190.0 | 189.0 | 192.0 | 189.0 | 192.0 | 190.0 | 179.0 | 176.0 |
| 135°   | 196.0 | 197.0 | 201.0 | 199.0 | 199.0 | 195.0 | 185.0 | 184.0 |
| 137.5° | 203.0 | 205.0 | 210.0 | 207.0 | 204.0 | 198.0 | 191.0 | 190.0 |
| 140°   | 212.0 | 214.0 | 217.0 | 214.0 | 209.0 | 202.0 | 195.0 | 195.0 |
| 142.5° | 220.0 | 222.0 | 223.0 | 217.0 | 211.0 | 204.0 | 198.0 | 198.0 |
| 145°   | 230.0 | 230.0 | 227.0 | 217.0 | 211.0 | 205.0 | 201.0 | 202.0 |
| 147.5° | 239.0 | 236.0 | 229.0 | 218.0 | 212.0 | 207.0 | 204.0 | 206.0 |
| 150°   | 242.0 | 240.0 | 232.0 | 220.0 | 214.0 | 211.0 | 210.0 | 211.0 |
| 152.5° | 242.0 | 241.0 | 235.0 | 223.0 | 219.0 | 217.0 | 215.0 | 216.0 |
| 155°   | 238.0 | 237.0 | 234.0 | 227.0 | 224.0 | 223.0 | 220.0 | 219.0 |
| 157.5° | 228.0 | 229.0 | 229.0 | 226.0 | 226.0 | 225.0 | 222.0 | 219.0 |
| 160°   | 215.0 | 217.0 | 219.0 | 219.0 | 221.0 | 222.0 | 218.0 | 215.0 |
| 162.5° | 196.0 | 199.0 | 200.0 | 201.0 | 204.0 | 208.0 | 207.0 | 207.0 |
| 165°   | 176.0 | 179.0 | 181.0 | 181.0 | 185.0 | 189.0 | 190.0 | 192.0 |
| 167.5° | 160.0 | 163.0 | 165.0 | 164.0 | 168.0 | 171.0 | 172.0 | 174.0 |
| 170°   | 148.0 | 150.0 | 152.0 | 152.0 | 155.0 | 158.0 | 159.0 | 160.0 |
| 172.5° | 141.0 | 144.0 | 145.0 | 144.0 | 146.0 | 149.0 | 149.0 | 151.0 |
| 175°   | 138.0 | 140.0 | 141.0 | 140.0 | 141.0 | 143.0 | 143.0 | 144.0 |
| 177.5° | 138.0 | 140.0 | 140.0 | 138.0 | 140.0 | 141.0 | 141.0 | 141.0 |
| 180°   | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 |

(END OF REPORT)