

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: P256846

Luminaire Tested: **ULA-A7-D-U-SYM-VMx-7030-HSS-BK**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256846  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-729-17)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ULA-A7-D-U-SYM-VMx-7030-HSS-BK  
Description: UTILITY LIGHT ACORN SYMMETRIC W/ HSS  
Light Source: (90) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5379.6 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 2.17')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G3

Input Watts (W): 54.8  
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



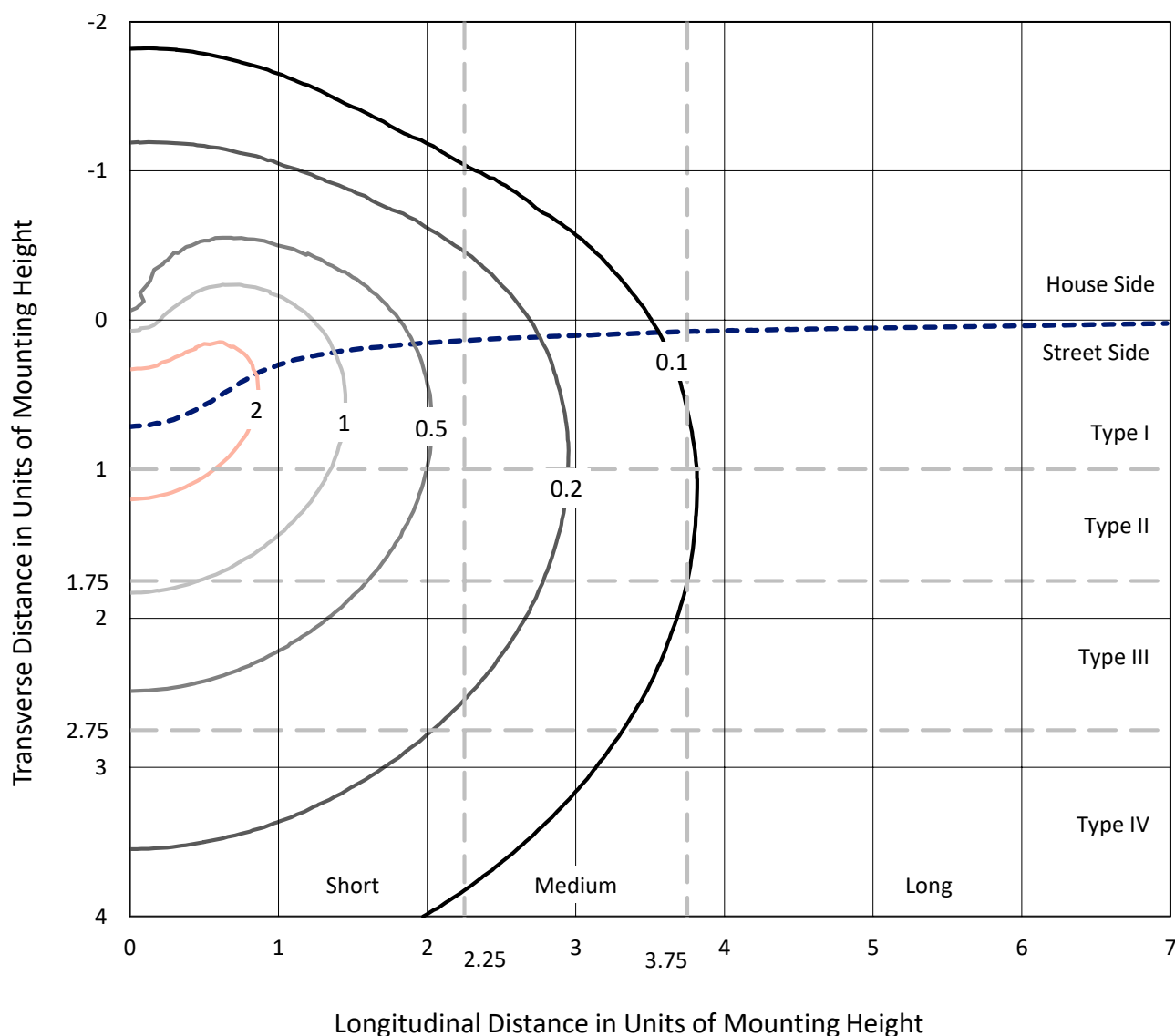
REPORT NUMBER: P256846

CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

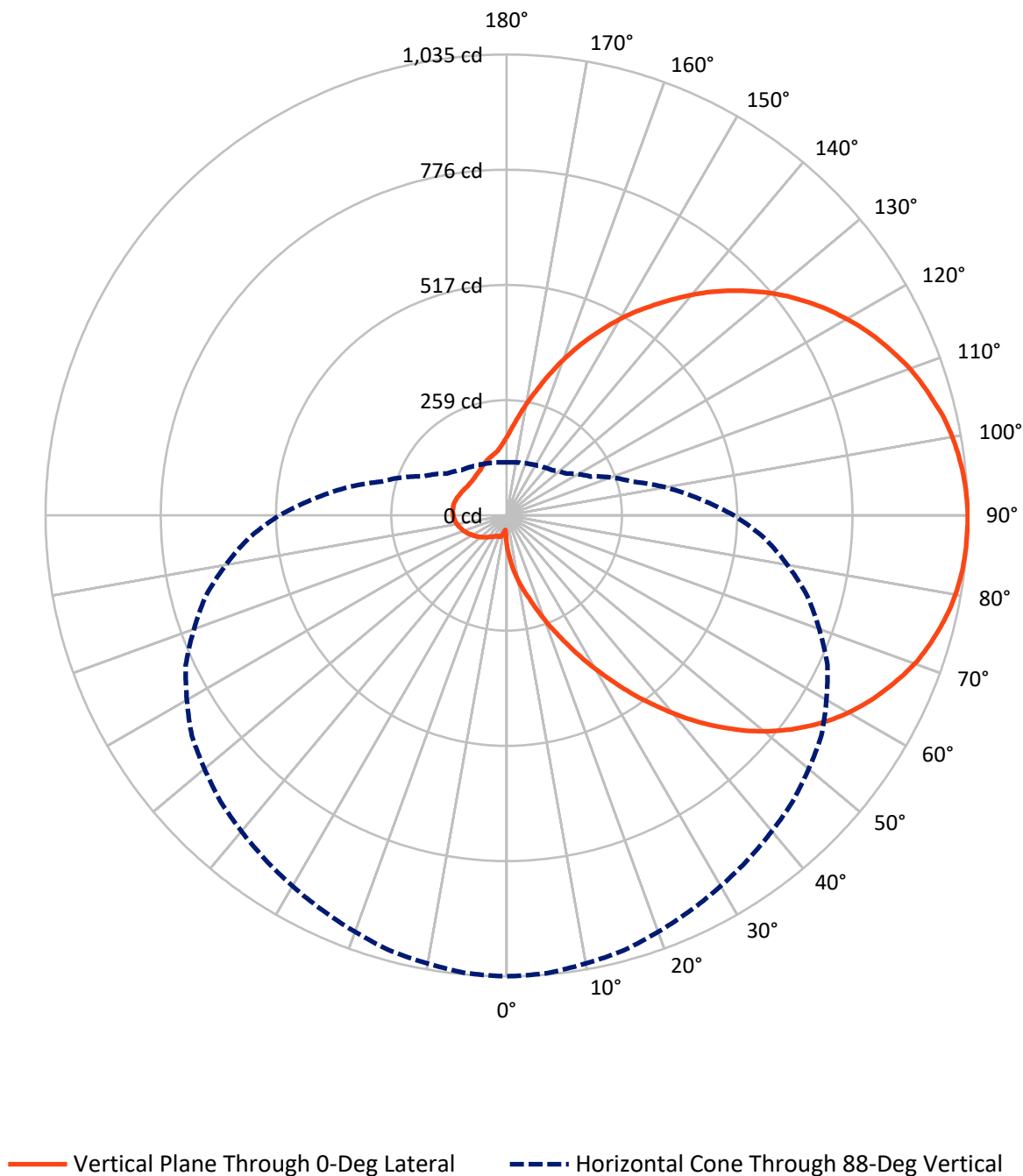


Based on 10 foot mounting height. Maximum calculated value = 2.7 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P256846

CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

## Luminous Intensity Polar Plot



REPORT NUMBER: P256846

CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

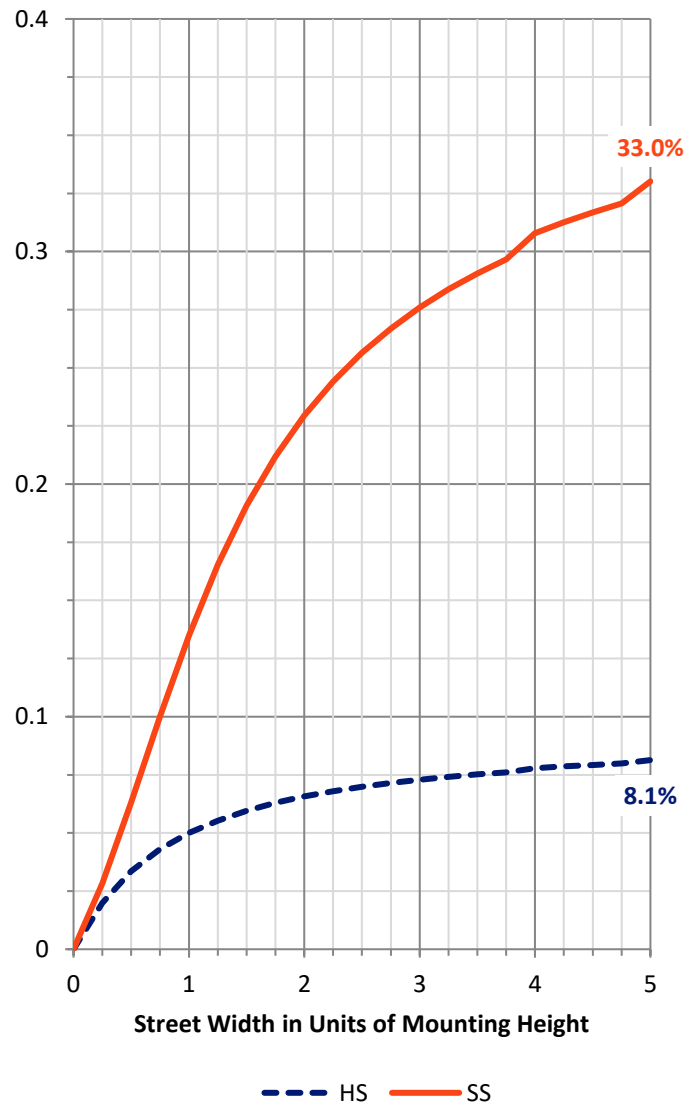
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 486.4    | 638.5  | 1124.9 |
|                    | % Fixture | 9.0      | 11.9   | 20.9   |
| <b>Street Side</b> | Lumens    | 2083.0   | 2171.7 | 4254.7 |
|                    | % Fixture | 38.7     | 40.4   | 79.1   |
| <b>Total</b>       | Lumens    | 2569.5   | 2810.2 | 5379.6 |
|                    | % Fixture | 47.8     | 52.2   | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 7.6    | 0.1       |
| 10°-20°   | 36.4   | 0.7       |
| 20°-30°   | 91.4   | 1.7       |
| 30°-40°   | 178.0  | 3.3       |
| 40°-50°   | 282.7  | 5.3       |
| 50°-60°   | 385.2  | 7.2       |
| 60°-70°   | 473.1  | 8.8       |
| 70°-80°   | 539.3  | 10.0      |
| 80°-90°   | 575.6  | 10.7      |
| 90°-100°  | 579.1  | 10.8      |
| 100°-110° | 549.4  | 10.2      |
| 110°-120° | 493.2  | 9.2       |
| 120°-130° | 417.6  | 7.8       |
| 130°-140° | 325.3  | 6.0       |
| 140°-150° | 226.5  | 4.2       |
| 150°-160° | 136.4  | 2.5       |
| 160°-170° | 65.1   | 1.2       |
| 170°-180° | 17.7   | 0.3       |
| 0°-90°    | 2569.5 | 47.8      |
| 0°-180°   | 5379.6 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P256846

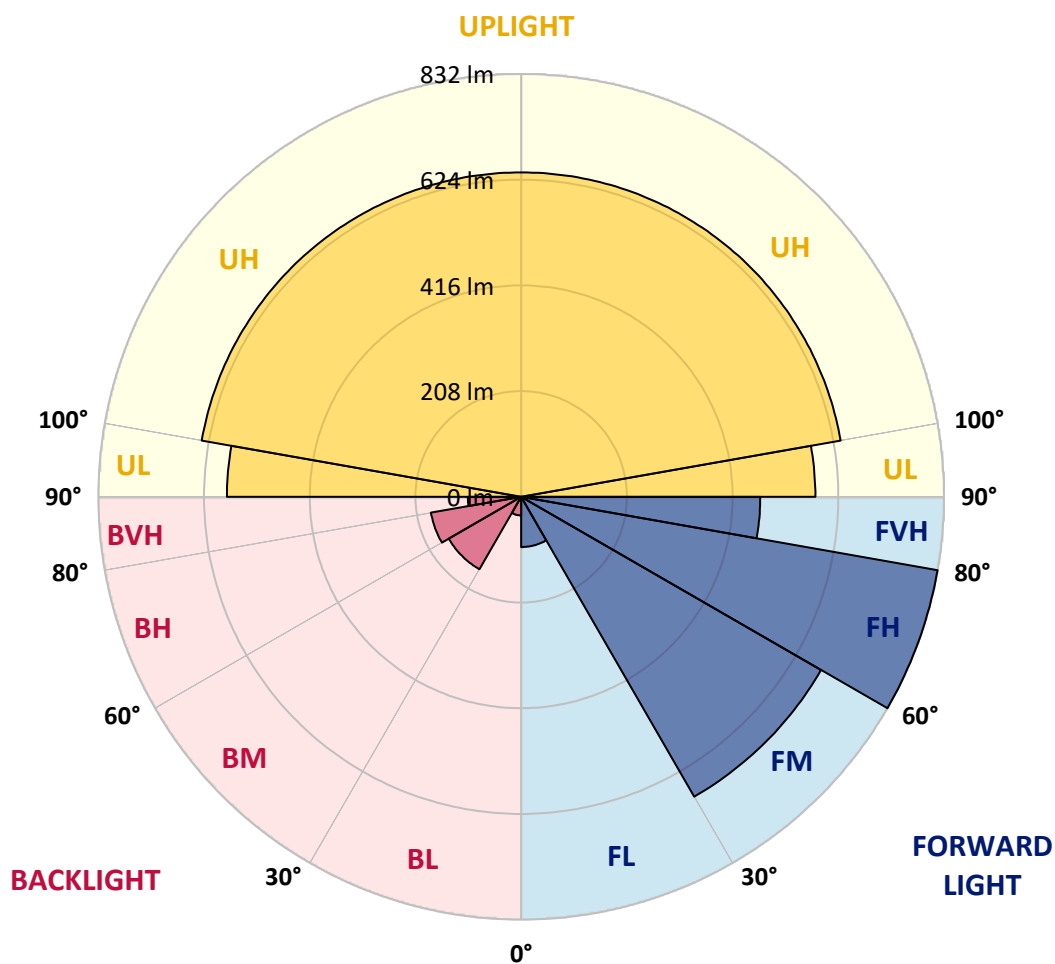
CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |         |         |
|------|-------------|--------|-----------|-------------------------|---------|---------|
|      |             |        |           | B                       | U       | G       |
| FL   | (0°-30°)    | 98.8   | 1.8       |                         |         |         |
| FM   | (30°-60°)   | 681.4  | 12.7      |                         |         |         |
| FH   | (60°-80°)   | 832.2  | 15.5      |                         |         | G1/1800 |
| FVH  | (80°-90°)   | 470.5  | 8.7       |                         |         | G3/500  |
| BL   | (0°-30°)    | 36.6   | 0.7       | B0/110                  |         |         |
| BM   | (30°-60°)   | 164.5  | 3.1       | B0/220                  |         |         |
| BH   | (60°-80°)   | 180.2  | 3.3       | B1/500                  |         | G1/500  |
| BVH  | (80°-90°)   | 105.1  | 2.0       |                         |         | G2/225  |
| UL   | (90°-100°)  | 579.1  | 10.8      |                         | U4/1000 |         |
| UH   | (100°-180°) | 638.5  | 11.9      |                         | U4/1000 |         |

**BUG Rating: B1-U5-G3**

Type IV Short





REPORT NUMBER: P256846

CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 15°    | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 66.2   | 66.2   | 66.2   | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  |
| 2.5°   | 85.4   | 85.4   | 83.8   | 84.6  | 82.2  | 80.6  | 77.4  | 74.2  | 71.8  | 68.6  | 67.0  |
| 5°     | 108.5  | 106.9  | 105.3  | 103.7 | 99.7  | 95.7  | 91.8  | 86.2  | 80.6  | 75.0  | 71.8  |
| 7.5°   | 130.0  | 129.2  | 126.1  | 123.7 | 118.9 | 114.1 | 108.5 | 101.3 | 94.9  | 87.8  | 83.8  |
| 10°    | 151.6  | 150.8  | 147.6  | 145.2 | 139.6 | 134.8 | 127.7 | 119.7 | 111.7 | 102.1 | 97.3  |
| 12.5°  | 173.1  | 172.3  | 169.1  | 167.5 | 162.8 | 157.2 | 149.2 | 138.8 | 129.2 | 118.1 | 112.5 |
| 15°    | 195.5  | 195.5  | 194.7  | 191.5 | 185.9 | 180.3 | 172.3 | 160.4 | 148.4 | 134.8 | 128.5 |
| 17.5°  | 225.0  | 223.4  | 221.0  | 218.6 | 213.8 | 207.4 | 195.5 | 184.3 | 169.1 | 153.2 | 143.6 |
| 20°    | 255.3  | 253.7  | 252.1  | 248.9 | 242.5 | 236.2 | 224.2 | 210.6 | 191.5 | 172.3 | 160.4 |
| 22.5°  | 288.0  | 286.4  | 284.8  | 281.6 | 275.3 | 268.1 | 255.3 | 239.3 | 219.4 | 194.7 | 179.5 |
| 25°    | 323.9  | 323.9  | 321.5  | 318.3 | 311.2 | 304.0 | 288.8 | 271.3 | 248.1 | 218.6 | 201.9 |
| 27.5°  | 364.6  | 362.2  | 361.4  | 357.4 | 351.0 | 342.3 | 326.3 | 305.6 | 278.4 | 244.1 | 225.8 |
| 30°    | 405.3  | 404.5  | 403.7  | 398.9 | 391.7 | 382.2 | 363.8 | 342.3 | 309.6 | 269.7 | 248.1 |
| 32.5°  | 449.2  | 450.0  | 446.8  | 441.2 | 433.2 | 422.8 | 402.9 | 377.4 | 342.3 | 295.2 | 270.5 |
| 35°    | 496.2  | 495.5  | 490.7  | 486.7 | 476.3 | 463.5 | 441.2 | 412.5 | 372.6 | 319.9 | 292.0 |
| 37.5°  | 541.7  | 542.5  | 537.7  | 531.4 | 519.4 | 505.0 | 480.3 | 447.6 | 401.3 | 343.9 | 312.7 |
| 40°    | 588.8  | 589.6  | 584.0  | 574.4 | 561.7 | 544.9 | 517.8 | 481.9 | 430.8 | 367.0 | 331.1 |
| 42.5°  | 635.1  | 635.1  | 629.5  | 619.9 | 602.4 | 583.2 | 553.7 | 514.6 | 458.0 | 387.7 | 349.4 |
| 45°    | 679.0  | 679.0  | 671.8  | 659.8 | 640.7 | 619.1 | 587.2 | 544.1 | 482.7 | 406.9 | 365.4 |
| 47.5°  | 722.0  | 721.2  | 713.3  | 697.3 | 679.0 | 654.2 | 620.7 | 571.2 | 506.6 | 425.2 | 379.8 |
| 50°    | 761.9  | 761.9  | 750.8  | 733.2 | 710.1 | 685.3 | 649.4 | 597.6 | 529.0 | 442.0 | 393.3 |
| 52.5°  | 798.6  | 797.8  | 785.9  | 766.7 | 741.2 | 714.9 | 676.6 | 621.5 | 548.1 | 457.2 | 406.1 |
| 55°    | 832.1  | 831.3  | 817.8  | 796.2 | 769.9 | 741.2 | 701.3 | 643.8 | 567.3 | 471.5 | 417.3 |
| 57.5°  | 863.2  | 862.5  | 846.5  | 822.6 | 796.2 | 765.9 | 724.4 | 664.6 | 584.8 | 485.1 | 428.4 |
| 60°    | 891.2  | 889.6  | 873.6  | 847.3 | 819.4 | 788.3 | 746.8 | 684.5 | 600.8 | 497.0 | 438.8 |
| 62.5°  | 915.9  | 914.3  | 896.8  | 869.6 | 840.1 | 808.2 | 764.3 | 701.3 | 615.1 | 509.0 | 447.6 |
| 65°    | 938.2  | 936.6  | 919.1  | 889.6 | 859.3 | 826.5 | 781.9 | 717.2 | 628.7 | 519.4 | 457.2 |
| 67.5°  | 959.0  | 957.4  | 937.4  | 907.1 | 876.8 | 843.3 | 798.6 | 732.4 | 641.5 | 529.8 | 465.9 |
| 70°    | 978.1  | 974.9  | 954.2  | 923.9 | 891.2 | 856.9 | 813.0 | 746.0 | 653.4 | 539.3 | 473.9 |
| 72.5°  | 992.5  | 990.1  | 969.4  | 937.4 | 904.7 | 871.2 | 825.8 | 757.1 | 664.6 | 548.1 | 481.1 |
| 75°    | 1005.3 | 1003.7 | 982.1  | 949.4 | 915.9 | 881.6 | 836.9 | 766.7 | 673.4 | 556.9 | 488.3 |
| 77.5°  | 1016.4 | 1013.2 | 992.5  | 959.8 | 925.5 | 890.4 | 845.7 | 776.3 | 681.3 | 563.3 | 493.9 |
| 80°    | 1024.4 | 1022.0 | 1000.5 | 967.0 | 932.7 | 897.6 | 852.9 | 783.5 | 687.7 | 568.9 | 498.6 |
| 82.5°  | 1030.0 | 1026.8 | 1006.1 | 972.6 | 938.2 | 902.3 | 857.7 | 787.5 | 692.5 | 573.6 | 503.4 |
| 85°    | 1033.2 | 1030.8 | 1009.3 | 976.5 | 941.4 | 905.5 | 860.9 | 791.4 | 696.5 | 577.6 | 506.6 |
| 87.5°  | 1034.0 | 1032.4 | 1011.6 | 978.1 | 943.0 | 907.9 | 862.5 | 793.8 | 698.9 | 580.0 | 509.0 |
| 88°    | 1034.8 | 1031.6 | 1011.6 | 978.1 | 943.8 | 907.9 | 862.5 | 794.6 | 698.9 | 580.8 | 509.8 |
| 90°    | 1034.8 | 1031.6 | 1011.6 | 978.9 | 943.8 | 907.1 | 863.2 | 795.4 | 699.7 | 581.6 | 511.4 |
| 92.5°  | 1032.4 | 1030.0 | 1010.0 | 978.1 | 943.0 | 906.3 | 862.5 | 794.6 | 700.5 | 583.2 | 513.0 |
| 95°    | 1028.4 | 1026.0 | 1006.9 | 974.9 | 939.8 | 903.9 | 860.1 | 793.0 | 699.7 | 583.2 | 513.0 |
| 97.5°  | 1022.0 | 1019.6 | 1001.3 | 969.4 | 935.1 | 899.2 | 855.3 | 789.8 | 697.3 | 582.4 | 513.0 |
| 100°   | 1014.0 | 1011.6 | 993.3  | 962.2 | 927.9 | 892.8 | 849.7 | 785.9 | 694.1 | 580.8 | 512.2 |
| 102.5° | 1003.7 | 1000.5 | 982.9  | 952.6 | 919.9 | 884.8 | 842.5 | 778.7 | 689.3 | 577.6 | 510.6 |
| 105°   | 989.3  | 987.7  | 971.0  | 941.4 | 907.9 | 874.4 | 832.9 | 771.5 | 683.7 | 573.6 | 507.4 |
| 107.5° | 975.7  | 973.3  | 956.6  | 927.9 | 896.8 | 864.0 | 823.4 | 762.7 | 677.4 | 569.6 | 505.0 |



REPORT NUMBER: P256846

CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 959.8 | 957.4 | 940.6 | 913.5 | 882.4 | 851.3 | 811.4 | 753.1 | 670.2 | 564.9 | 502.6 |
| 112.5° | 940.6 | 939.0 | 922.3 | 896.8 | 867.2 | 837.7 | 799.4 | 742.8 | 662.2 | 560.1 | 499.4 |
| 115°   | 921.5 | 919.1 | 903.1 | 879.2 | 850.5 | 822.6 | 785.9 | 730.8 | 652.6 | 554.5 | 496.2 |
| 117.5° | 900.7 | 898.4 | 882.4 | 859.3 | 832.9 | 805.8 | 770.7 | 718.0 | 643.0 | 548.1 | 492.3 |
| 120°   | 876.8 | 875.2 | 860.1 | 838.5 | 814.6 | 788.3 | 753.9 | 704.5 | 632.7 | 541.7 | 488.3 |
| 122.5° | 852.9 | 850.5 | 836.9 | 817.0 | 794.6 | 769.9 | 737.2 | 690.1 | 620.7 | 533.7 | 483.5 |
| 125°   | 826.5 | 825.0 | 812.2 | 793.8 | 773.1 | 750.0 | 718.8 | 672.6 | 607.9 | 525.8 | 477.9 |
| 127.5° | 799.4 | 797.0 | 785.1 | 768.3 | 750.0 | 727.6 | 698.9 | 655.8 | 594.4 | 515.4 | 471.5 |
| 130°   | 769.9 | 768.3 | 757.1 | 742.0 | 723.6 | 703.7 | 676.6 | 635.9 | 578.4 | 504.2 | 462.7 |
| 132.5° | 738.8 | 737.2 | 727.6 | 714.9 | 696.5 | 678.2 | 652.6 | 613.5 | 560.1 | 491.5 | 453.2 |
| 135°   | 706.9 | 706.1 | 697.3 | 685.3 | 668.6 | 651.8 | 627.1 | 591.2 | 541.7 | 477.9 | 442.0 |
| 137.5° | 674.2 | 673.4 | 665.4 | 653.4 | 640.7 | 623.1 | 600.0 | 566.5 | 521.0 | 461.9 | 428.4 |
| 140°   | 639.1 | 638.3 | 631.9 | 620.7 | 607.1 | 592.8 | 570.4 | 540.1 | 497.8 | 443.6 | 414.1 |
| 142.5° | 604.0 | 603.2 | 597.6 | 589.6 | 576.8 | 561.7 | 540.9 | 512.2 | 474.7 | 425.2 | 398.1 |
| 145°   | 569.6 | 568.9 | 564.1 | 556.1 | 544.1 | 530.6 | 510.6 | 485.9 | 450.8 | 406.1 | 382.2 |
| 147.5° | 536.9 | 535.3 | 531.4 | 525.0 | 513.8 | 500.2 | 481.9 | 458.8 | 426.8 | 386.9 | 365.4 |
| 150°   | 501.8 | 501.0 | 496.2 | 491.5 | 480.3 | 469.1 | 451.6 | 431.6 | 402.1 | 366.2 | 347.1 |
| 152.5° | 466.7 | 465.9 | 462.7 | 457.2 | 447.6 | 437.2 | 421.3 | 402.9 | 377.4 | 345.5 | 328.7 |
| 155°   | 432.4 | 431.6 | 428.4 | 424.4 | 414.9 | 405.3 | 390.9 | 374.2 | 351.0 | 323.9 | 308.8 |
| 157.5° | 398.1 | 398.1 | 396.5 | 391.7 | 383.0 | 374.2 | 359.8 | 347.1 | 326.3 | 302.4 | 290.4 |
| 160°   | 364.6 | 364.6 | 363.8 | 359.0 | 351.8 | 343.9 | 331.1 | 318.3 | 302.4 | 281.6 | 271.3 |
| 162.5° | 331.9 | 330.3 | 331.1 | 327.9 | 320.7 | 314.3 | 303.2 | 292.8 | 277.6 | 260.1 | 251.3 |
| 165°   | 300.8 | 300.0 | 300.8 | 297.6 | 291.2 | 285.6 | 275.3 | 267.3 | 254.5 | 239.3 | 233.0 |
| 167.5° | 272.9 | 272.9 | 272.1 | 269.7 | 264.1 | 259.3 | 251.3 | 244.1 | 233.8 | 221.8 | 216.2 |
| 170°   | 248.1 | 246.5 | 247.3 | 244.9 | 240.9 | 237.0 | 229.8 | 223.4 | 215.4 | 205.8 | 201.9 |
| 172.5° | 225.0 | 223.4 | 224.2 | 221.8 | 219.4 | 216.2 | 211.4 | 205.8 | 199.5 | 190.7 | 188.3 |
| 175°   | 204.2 | 203.4 | 203.4 | 201.9 | 200.3 | 197.9 | 193.1 | 189.9 | 185.9 | 181.1 | 179.5 |
| 177.5° | 185.9 | 184.3 | 185.1 | 184.3 | 183.5 | 182.7 | 181.1 | 179.5 | 177.1 | 174.7 | 173.9 |
| 180°   | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 |





REPORT NUMBER: P256846

CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

**CANDELA DISTRIBUTION (continued):**

|        | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  | 66.2  |
| 2.5°   | 65.4  | 62.2  | 58.2  | 54.3  | 50.3  | 47.1  | 45.5  | 43.1  | 43.1  | 41.5  |
| 5°     | 68.6  | 62.2  | 55.8  | 50.3  | 44.7  | 39.9  | 35.9  | 33.5  | 32.7  | 32.7  |
| 7.5°   | 79.8  | 72.6  | 64.6  | 57.4  | 51.1  | 45.5  | 40.7  | 36.7  | 35.1  | 34.3  |
| 10°    | 92.5  | 83.8  | 73.4  | 65.4  | 58.2  | 51.1  | 45.5  | 41.5  | 39.9  | 39.9  |
| 12.5°  | 106.1 | 94.9  | 83.0  | 72.6  | 63.0  | 55.8  | 50.3  | 47.1  | 45.5  | 44.7  |
| 15°    | 120.5 | 106.1 | 91.8  | 79.0  | 68.6  | 59.8  | 54.3  | 51.1  | 49.5  | 48.7  |
| 17.5°  | 134.8 | 117.3 | 100.5 | 85.4  | 72.6  | 63.8  | 56.6  | 51.9  | 50.3  | 50.3  |
| 20°    | 150.0 | 128.5 | 108.5 | 91.0  | 76.6  | 65.4  | 57.4  | 52.7  | 50.3  | 50.3  |
| 22.5°  | 167.5 | 141.2 | 116.5 | 96.5  | 79.8  | 67.8  | 59.0  | 53.5  | 50.3  | 50.3  |
| 25°    | 185.9 | 154.8 | 126.1 | 102.1 | 83.8  | 70.2  | 60.6  | 54.3  | 51.9  | 51.1  |
| 27.5°  | 206.6 | 168.3 | 135.6 | 107.7 | 87.8  | 72.6  | 62.2  | 55.8  | 52.7  | 52.7  |
| 30°    | 226.6 | 181.1 | 143.6 | 113.3 | 91.0  | 75.0  | 63.8  | 57.4  | 54.3  | 54.3  |
| 32.5°  | 245.7 | 193.9 | 150.8 | 118.1 | 94.1  | 77.4  | 66.2  | 59.0  | 56.6  | 55.8  |
| 35°    | 263.3 | 205.8 | 157.2 | 121.3 | 96.5  | 79.8  | 68.6  | 61.4  | 58.2  | 58.2  |
| 37.5°  | 280.0 | 216.2 | 162.8 | 124.5 | 98.9  | 81.4  | 71.0  | 63.8  | 60.6  | 60.6  |
| 40°    | 295.2 | 225.0 | 166.7 | 126.9 | 100.5 | 83.8  | 73.4  | 66.2  | 63.8  | 63.0  |
| 42.5°  | 309.6 | 232.2 | 169.9 | 128.5 | 102.1 | 86.2  | 75.8  | 69.4  | 66.2  | 66.2  |
| 45°    | 321.5 | 238.6 | 173.1 | 130.0 | 103.7 | 87.8  | 78.2  | 71.8  | 69.4  | 68.6  |
| 47.5°  | 332.7 | 244.1 | 174.7 | 131.6 | 105.3 | 90.2  | 80.6  | 75.0  | 72.6  | 71.8  |
| 50°    | 343.1 | 248.1 | 176.3 | 132.4 | 106.9 | 92.5  | 83.0  | 78.2  | 75.8  | 75.0  |
| 52.5°  | 352.6 | 252.1 | 177.1 | 133.2 | 108.5 | 94.1  | 86.2  | 80.6  | 78.2  | 78.2  |
| 55°    | 360.6 | 256.1 | 178.7 | 134.8 | 110.1 | 97.3  | 88.6  | 84.6  | 82.2  | 81.4  |
| 57.5°  | 369.4 | 259.3 | 180.3 | 135.6 | 112.5 | 99.7  | 91.8  | 87.8  | 85.4  | 84.6  |
| 60°    | 376.6 | 262.5 | 181.9 | 137.2 | 114.1 | 102.1 | 94.9  | 91.0  | 88.6  | 87.8  |
| 62.5°  | 383.8 | 264.9 | 182.7 | 138.8 | 116.5 | 105.3 | 98.1  | 94.1  | 91.8  | 91.0  |
| 65°    | 390.1 | 268.1 | 185.1 | 141.2 | 118.9 | 107.7 | 101.3 | 97.3  | 94.9  | 94.9  |
| 67.5°  | 396.5 | 271.3 | 186.7 | 142.8 | 122.1 | 110.9 | 104.5 | 100.5 | 98.1  | 98.1  |
| 70°    | 402.9 | 273.7 | 188.3 | 145.2 | 124.5 | 114.1 | 107.7 | 103.7 | 101.3 | 101.3 |
| 72.5°  | 408.5 | 276.8 | 190.7 | 148.4 | 127.7 | 117.3 | 110.9 | 106.9 | 104.5 | 104.5 |
| 75°    | 413.3 | 279.2 | 193.1 | 150.8 | 130.0 | 120.5 | 114.1 | 110.1 | 107.7 | 106.9 |
| 77.5°  | 418.9 | 282.4 | 196.3 | 153.2 | 133.2 | 123.7 | 117.3 | 113.3 | 110.1 | 110.1 |
| 80°    | 422.8 | 284.0 | 198.7 | 155.6 | 136.4 | 126.1 | 119.7 | 115.7 | 113.3 | 112.5 |
| 82.5°  | 426.8 | 287.2 | 201.1 | 158.0 | 138.8 | 128.5 | 122.1 | 118.1 | 115.7 | 114.9 |
| 85°    | 429.2 | 288.8 | 202.6 | 160.4 | 141.2 | 130.8 | 124.5 | 119.7 | 117.3 | 116.5 |
| 87.5°  | 431.6 | 291.2 | 205.0 | 162.8 | 143.6 | 133.2 | 126.9 | 122.1 | 118.9 | 118.1 |
| 88°    | 432.4 | 292.0 | 206.6 | 163.6 | 143.6 | 134.0 | 126.9 | 122.1 | 119.7 | 118.9 |
| 90°    | 434.0 | 293.6 | 208.2 | 165.2 | 145.2 | 134.8 | 128.5 | 122.9 | 120.5 | 119.7 |
| 92.5°  | 434.8 | 295.2 | 209.8 | 166.7 | 147.6 | 136.4 | 129.2 | 124.5 | 121.3 | 120.5 |
| 95°    | 436.4 | 296.8 | 212.2 | 169.1 | 149.2 | 138.0 | 130.0 | 125.3 | 122.1 | 121.3 |
| 97.5°  | 436.4 | 298.4 | 214.6 | 170.7 | 150.0 | 138.8 | 130.8 | 125.3 | 122.1 | 121.3 |
| 100°   | 436.4 | 300.0 | 217.0 | 172.3 | 151.6 | 138.8 | 130.8 | 125.3 | 122.1 | 121.3 |
| 102.5° | 435.6 | 302.4 | 219.4 | 174.7 | 152.4 | 139.6 | 130.8 | 124.5 | 121.3 | 121.3 |
| 105°   | 434.8 | 304.0 | 221.8 | 177.1 | 154.0 | 139.6 | 130.0 | 123.7 | 120.5 | 120.5 |
| 107.5° | 434.8 | 307.2 | 225.8 | 179.5 | 154.8 | 139.6 | 129.2 | 122.9 | 119.7 | 118.9 |



REPORT NUMBER: P256846

CATALOG NUMBER: ULA-A7-D-U-SYM-VMx-7030-HSS-BK

**CANDELA DISTRIBUTION (continued):**

|        | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 434.0 | 310.4 | 230.6 | 183.5 | 157.2 | 140.4 | 129.2 | 122.1 | 118.1 | 118.1 |
| 112.5° | 433.2 | 314.3 | 234.6 | 186.7 | 158.8 | 140.4 | 128.5 | 120.5 | 117.3 | 116.5 |
| 115°   | 434.0 | 318.3 | 240.1 | 190.7 | 161.2 | 141.2 | 127.7 | 119.7 | 115.7 | 114.9 |
| 117.5° | 432.4 | 322.3 | 245.7 | 195.5 | 163.6 | 142.0 | 127.7 | 118.9 | 114.1 | 114.1 |
| 120°   | 431.6 | 326.3 | 251.3 | 201.9 | 166.7 | 142.8 | 126.9 | 117.3 | 113.3 | 112.5 |
| 122.5° | 430.0 | 330.3 | 256.9 | 206.6 | 169.9 | 144.4 | 126.9 | 116.5 | 111.7 | 111.7 |
| 125°   | 427.6 | 332.7 | 260.9 | 210.6 | 172.3 | 145.2 | 126.9 | 116.5 | 110.9 | 110.1 |
| 127.5° | 423.6 | 334.3 | 265.7 | 214.6 | 174.7 | 146.8 | 126.9 | 115.7 | 110.1 | 109.3 |
| 130°   | 418.9 | 335.1 | 268.1 | 217.8 | 177.1 | 147.6 | 127.7 | 115.7 | 110.1 | 109.3 |
| 132.5° | 411.7 | 334.3 | 269.7 | 220.2 | 179.5 | 149.2 | 128.5 | 115.7 | 110.1 | 109.3 |
| 135°   | 404.5 | 331.9 | 270.5 | 221.8 | 181.1 | 150.8 | 129.2 | 115.7 | 110.1 | 109.3 |
| 137.5° | 394.1 | 327.9 | 270.5 | 222.6 | 181.9 | 151.6 | 130.0 | 116.5 | 110.9 | 110.1 |
| 140°   | 383.0 | 321.5 | 267.3 | 222.6 | 182.7 | 153.2 | 131.6 | 118.1 | 111.7 | 110.9 |
| 142.5° | 370.2 | 315.1 | 264.9 | 221.0 | 182.7 | 154.0 | 132.4 | 118.9 | 112.5 | 112.5 |
| 145°   | 356.6 | 307.2 | 260.1 | 220.2 | 182.7 | 154.8 | 134.0 | 120.5 | 114.1 | 114.1 |
| 147.5° | 343.1 | 298.4 | 255.3 | 217.8 | 182.7 | 155.6 | 135.6 | 122.9 | 116.5 | 115.7 |
| 150°   | 327.9 | 287.2 | 248.1 | 213.0 | 181.1 | 155.6 | 136.4 | 124.5 | 118.1 | 117.3 |
| 152.5° | 311.2 | 275.3 | 240.9 | 209.0 | 178.7 | 155.6 | 138.0 | 126.1 | 120.5 | 120.5 |
| 155°   | 294.4 | 262.5 | 232.2 | 203.4 | 177.1 | 156.4 | 140.4 | 129.2 | 123.7 | 123.7 |
| 157.5° | 276.8 | 250.5 | 223.4 | 197.9 | 174.7 | 156.4 | 142.0 | 132.4 | 127.7 | 126.9 |
| 160°   | 260.1 | 237.8 | 214.6 | 191.5 | 172.3 | 156.4 | 143.6 | 134.8 | 130.8 | 130.0 |
| 162.5° | 242.5 | 223.4 | 204.2 | 185.1 | 168.3 | 154.8 | 144.4 | 137.2 | 133.2 | 133.2 |
| 165°   | 225.0 | 209.8 | 192.3 | 177.9 | 164.4 | 154.0 | 145.2 | 138.8 | 135.6 | 135.6 |
| 167.5° | 210.6 | 197.1 | 183.5 | 171.5 | 162.0 | 153.2 | 146.0 | 141.2 | 138.8 | 138.8 |
| 170°   | 196.3 | 185.9 | 176.3 | 167.5 | 159.6 | 152.4 | 147.6 | 144.4 | 142.0 | 142.0 |
| 172.5° | 185.1 | 177.9 | 170.7 | 164.4 | 158.8 | 154.0 | 150.0 | 147.6 | 146.0 | 146.0 |
| 175°   | 177.1 | 172.3 | 168.3 | 163.6 | 160.4 | 157.2 | 154.8 | 153.2 | 152.4 | 153.2 |
| 177.5° | 173.1 | 170.7 | 168.3 | 165.9 | 165.2 | 163.6 | 162.0 | 161.2 | 161.2 | 162.0 |
| 180°   | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 | 172.3 |

(END OF REPORT)