

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: P573267

Luminaire Tested: **ARCH-S-PA2-50-827-U-T2U-HSS**

Issue Date: 10/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P573267  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-332-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/13/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA2-50-827-U-T2U-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 520mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II U OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4048 lumens  
Efficiency: N/A  
Efficacy: 75.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

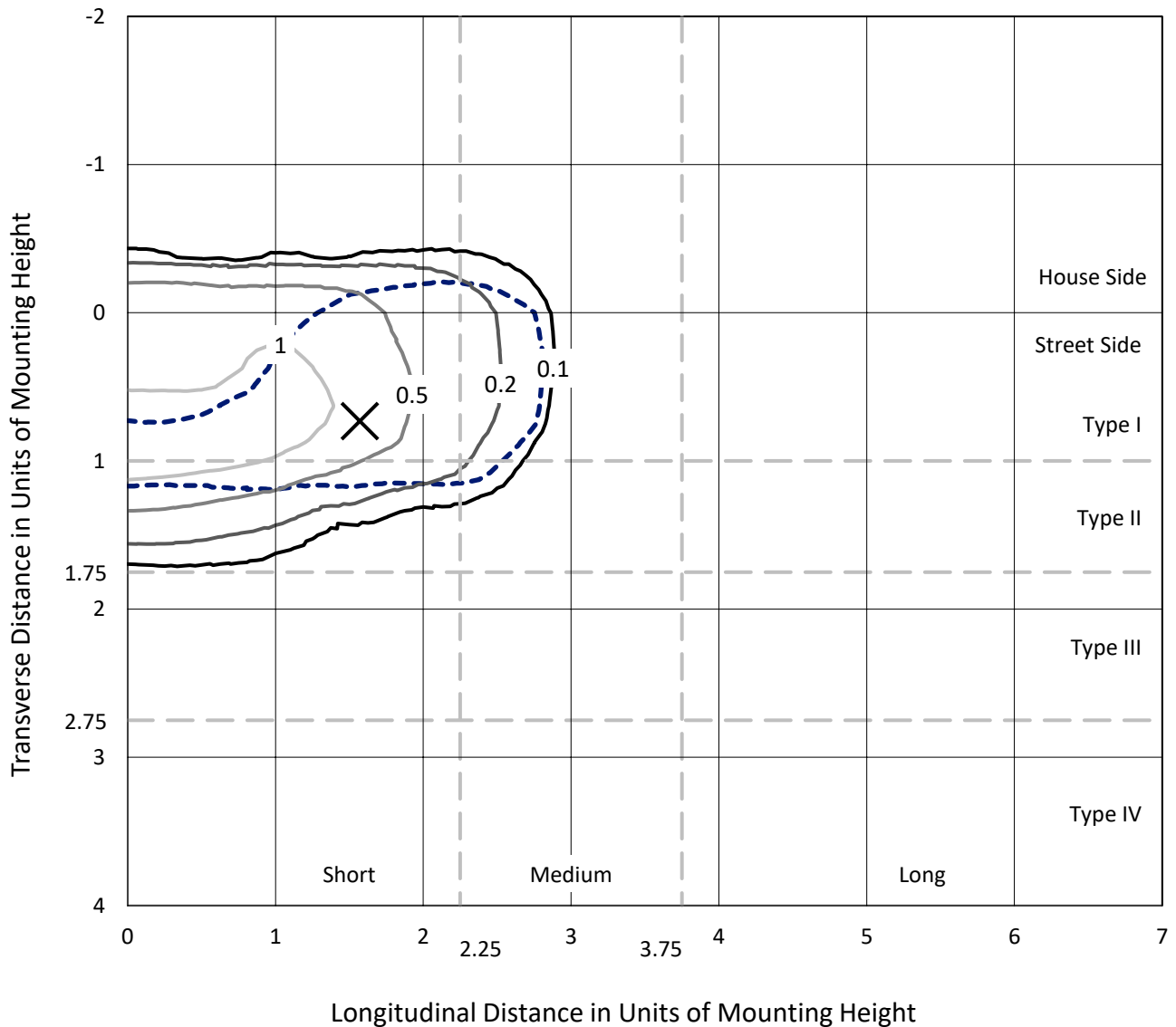
Input Watts (W): 53.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

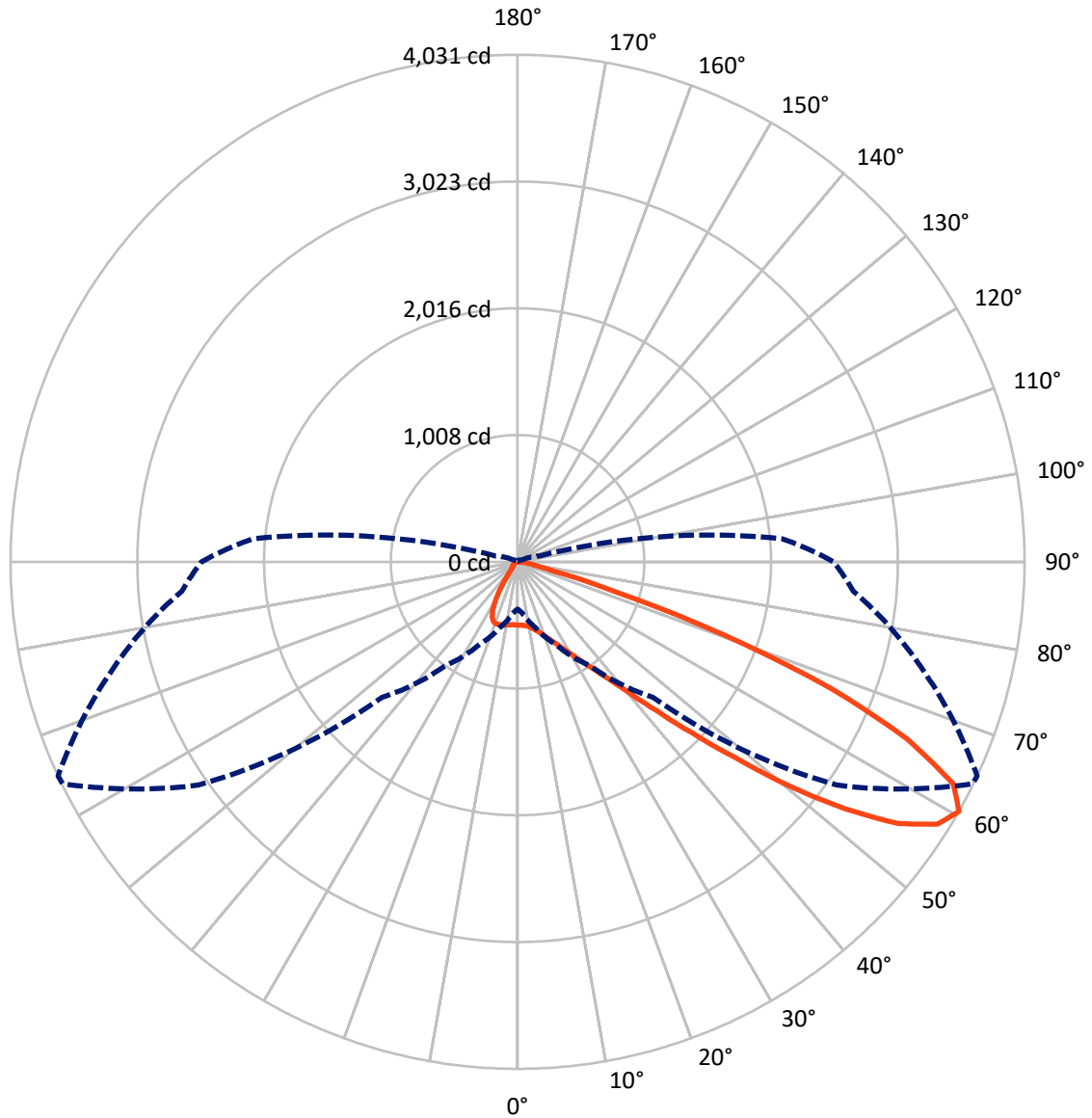
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

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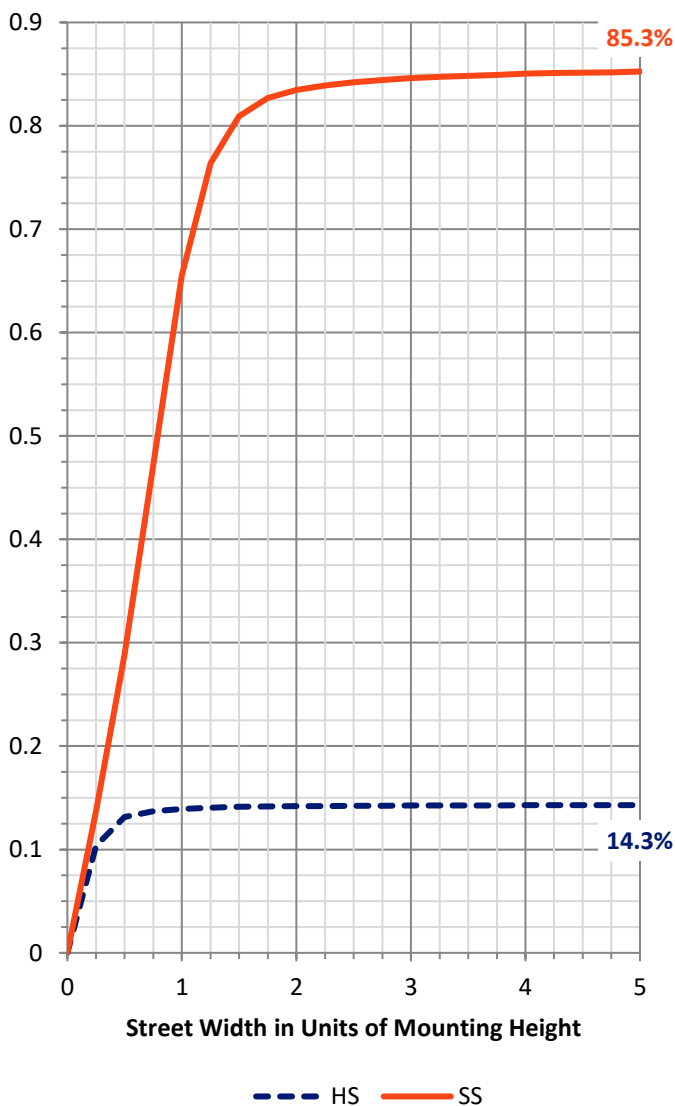
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 586.0    | 0.0    | 586.0  |
|                    | % Fixture | 14.5     | 0.0    | 14.5   |
| <b>Street Side</b> | Lumens    | 3462.0   | 0.0    | 3462.0 |
|                    | % Fixture | 85.5     | 0.0    | 85.5   |
| <b>Total</b>       | Lumens    | 4048.0   | 0.0    | 4048.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 47.7   | 1.2       |
| 10°-20°   | 135.2  | 3.3       |
| 20°-30°   | 229.7  | 5.7       |
| 30°-40°   | 473.9  | 11.7      |
| 40°-50°   | 953.2  | 23.5      |
| 50°-60°   | 1166.4 | 28.8      |
| 60°-70°   | 825.2  | 20.4      |
| 70°-80°   | 198.8  | 4.9       |
| 80°-90°   | 18.0   | 0.4       |
| 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°    | 4048.0 | 100.0     |
| 0°-180°   | 4048.0 | 100.0     |

**Coefficient of Utilization**

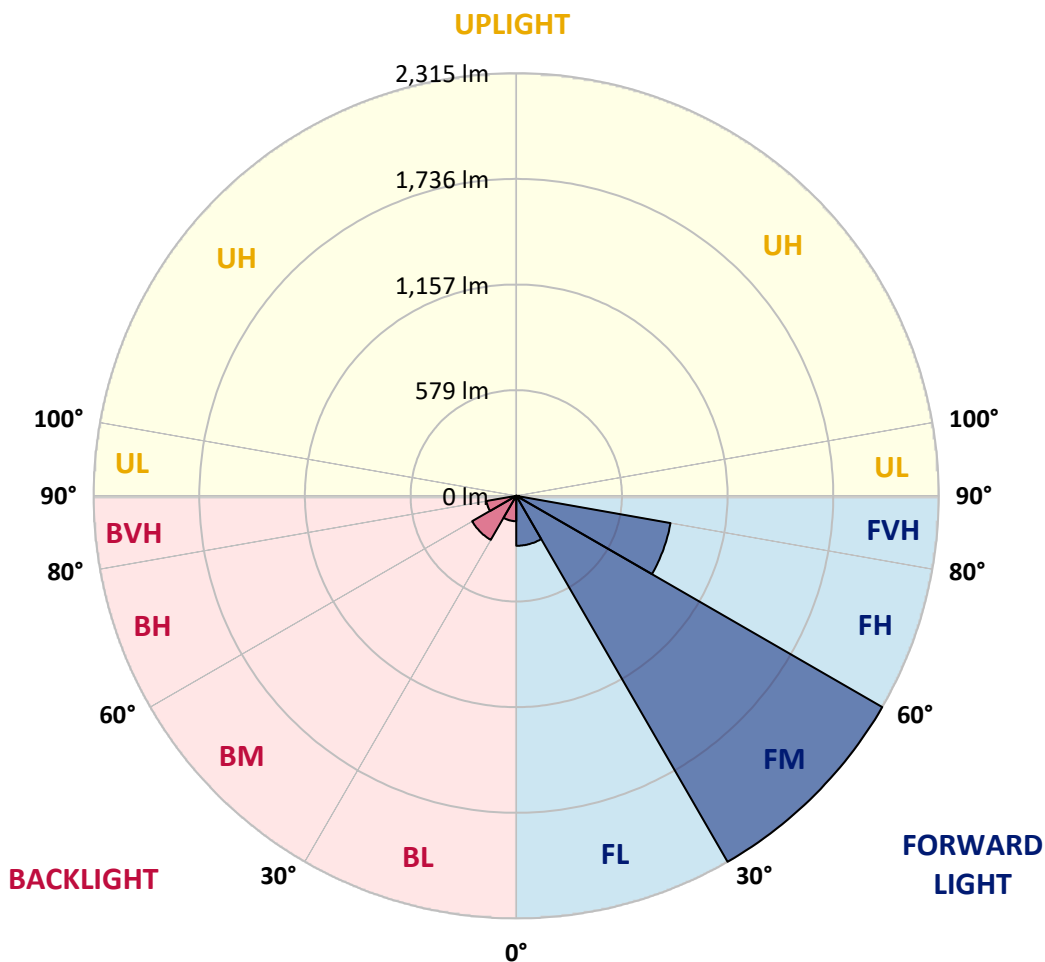


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 273.6  | 6.8       |                         |      |         |
| FM (30°-60°)   | 2314.8 | 57.2      |                         |      |         |
| FH (60°-80°)   | 857.9  | 21.2      |                         |      | G1/1800 |
| FVH (80°-90°)  | 15.6   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 138.9  | 3.4       | B1/500                  |      |         |
| BM (30°-60°)   | 278.6  | 6.9       | B1/1000                 |      |         |
| BH (60°-80°)   | 166.1  | 4.1       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 2.3    | 0.1       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 64°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 504.3  | 504.3  | 504.3  | 504.3  | 504.3  | 504.3  | 504.3  | 504.3  | 504.3  | 504.3  | 504.3  |
| 2.5°  | 505.9  | 504.3  | 504.3  | 504.3  | 505.9  | 505.9  | 507.5  | 504.3  | 504.3  | 504.3  | 504.3  |
| 5°    | 502.7  | 501.1  | 501.1  | 502.7  | 504.3  | 504.3  | 507.5  | 507.5  | 507.5  | 509.1  | 509.1  |
| 7.5°  | 509.1  | 505.9  | 505.9  | 507.5  | 509.1  | 509.1  | 512.3  | 513.9  | 513.9  | 517.0  | 518.6  |
| 10°   | 517.0  | 515.5  | 515.5  | 518.6  | 521.8  | 521.8  | 526.6  | 526.6  | 526.6  | 529.8  | 531.4  |
| 12.5° | 528.2  | 526.6  | 526.6  | 531.4  | 536.2  | 539.4  | 542.6  | 544.2  | 545.8  | 545.8  | 545.8  |
| 15°   | 544.2  | 542.6  | 542.6  | 547.4  | 553.8  | 561.7  | 566.5  | 566.5  | 569.7  | 568.1  | 561.7  |
| 17.5° | 566.5  | 564.9  | 566.5  | 569.7  | 577.7  | 585.7  | 595.2  | 596.8  | 595.2  | 592.0  | 582.5  |
| 20°   | 603.2  | 598.4  | 601.6  | 609.6  | 609.6  | 614.4  | 627.2  | 631.9  | 633.5  | 624.0  | 606.4  |
| 22.5° | 641.5  | 641.5  | 644.7  | 654.3  | 647.9  | 654.3  | 665.5  | 673.4  | 676.6  | 668.6  | 639.9  |
| 25°   | 713.3  | 716.5  | 711.7  | 708.5  | 692.6  | 695.8  | 710.1  | 726.1  | 726.1  | 719.7  | 678.2  |
| 27.5° | 871.3  | 868.1  | 834.6  | 788.3  | 746.8  | 750.0  | 764.4  | 785.1  | 786.7  | 772.4  | 716.5  |
| 30°   | 1097.9 | 1101.1 | 1035.7 | 930.4  | 839.4  | 815.5  | 831.4  | 855.4  | 858.6  | 834.6  | 766.0  |
| 32.5° | 1452.2 | 1425.1 | 1303.8 | 1163.4 | 992.6  | 906.4  | 912.8  | 938.3  | 947.9  | 927.2  | 844.2  |
| 35°   | 1910.2 | 1846.4 | 1664.4 | 1490.5 | 1243.1 | 1069.2 | 1019.7 | 1046.9 | 1051.6 | 1040.5 | 941.5  |
| 37.5° | 2183.1 | 2132.0 | 2013.9 | 1855.9 | 1565.5 | 1286.2 | 1160.2 | 1187.3 | 1182.5 | 1160.2 | 1038.9 |
| 40°   | 2352.2 | 2323.5 | 2259.7 | 2186.3 | 2001.2 | 1627.7 | 1391.6 | 1369.2 | 1370.8 | 1338.9 | 1196.9 |
| 42.5° | 2448.0 | 2422.5 | 2398.5 | 2417.7 | 2363.4 | 2246.9 | 1726.7 | 1624.5 | 1615.0 | 1554.3 | 1380.4 |
| 45°   | 2452.8 | 2414.5 | 2443.2 | 2554.9 | 2641.1 | 2795.9 | 2163.9 | 1927.8 | 1932.5 | 1832.0 | 1608.6 |
| 47.5° | 2269.3 | 2238.9 | 2321.9 | 2540.5 | 2826.2 | 3154.9 | 2673.0 | 2342.7 | 2320.3 | 2122.4 | 1840.0 |
| 50°   | 1907.0 | 1905.4 | 2015.5 | 2325.1 | 2826.2 | 3340.1 | 3218.8 | 2829.4 | 2805.5 | 2425.6 | 2050.6 |
| 52.5° | 1509.6 | 1540.0 | 1615.0 | 1908.6 | 2566.1 | 3322.5 | 3620.9 | 3332.1 | 3265.1 | 2695.3 | 2226.2 |
| 55°   | 1174.5 | 1163.4 | 1254.3 | 1457.0 | 2034.7 | 3019.3 | 3751.8 | 3727.8 | 3672.0 | 2934.7 | 2381.0 |
| 57.5° | 721.3  | 762.8  | 885.7  | 1066.0 | 1480.9 | 2374.6 | 3563.5 | 3968.8 | 3935.3 | 3158.1 | 2542.1 |
| 60°   | 375.0  | 406.9  | 539.4  | 727.7  | 1011.8 | 1522.4 | 3092.7 | 4024.7 | 4031.0 | 3338.5 | 2679.4 |
| 62.5° | 236.2  | 234.6  | 295.2  | 510.7  | 651.1  | 855.4  | 2401.7 | 3826.8 | 3887.4 | 3477.3 | 2810.2 |
| 65°   | 177.1  | 178.7  | 202.7  | 338.3  | 442.0  | 446.8  | 1425.1 | 3309.7 | 3410.3 | 3514.0 | 2854.9 |
| 67.5° | 164.4  | 166.0  | 177.1  | 221.8  | 331.9  | 298.4  | 627.2  | 2551.7 | 2692.2 | 3175.7 | 2682.6 |
| 70°   | 146.8  | 148.4  | 166.0  | 183.5  | 250.5  | 218.6  | 282.5  | 1536.8 | 1731.5 | 2304.4 | 2146.4 |
| 72.5° | 114.9  | 118.1  | 138.8  | 173.9  | 186.7  | 166.0  | 196.3  | 679.8  | 793.1  | 1267.1 | 1228.8 |
| 75°   | 84.6   | 86.2   | 105.3  | 134.0  | 164.4  | 118.1  | 151.6  | 269.7  | 295.2  | 475.6  | 405.3  |
| 77.5° | 59.0   | 59.0   | 73.4   | 100.5  | 137.2  | 83.0   | 108.5  | 145.2  | 148.4  | 177.1  | 116.5  |
| 80°   | 36.7   | 38.3   | 46.3   | 68.6   | 84.6   | 79.8   | 67.0   | 97.3   | 97.3   | 92.6   | 47.9   |
| 82.5° | 20.7   | 22.3   | 31.9   | 46.3   | 57.4   | 54.3   | 43.1   | 55.9   | 57.4   | 59.0   | 27.1   |
| 85°   | 9.6    | 11.2   | 19.1   | 28.7   | 33.5   | 25.5   | 25.5   | 28.7   | 28.7   | 38.3   | 16.0   |
| 87.5° | 1.6    | 1.6    | 9.6    | 12.8   | 11.2   | 12.8   | 12.8   | 16.0   | 16.0   | 19.1   | 8.0    |
| 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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CATALOG NUMBER: ARCH-S-PA2-50-827-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 504.3  | 504.3  | 504.3 | 504.3 | 504.3 | 504.3 | 504.3 | 504.3 | 504.3 | 504.3 | 504.3 |
| 2.5°  | 502.7  | 502.7  | 502.7 | 501.1 | 501.1 | 499.5 | 496.3 | 496.3 | 496.3 | 496.3 | 497.9 |
| 5°    | 509.1  | 507.5  | 505.9 | 501.1 | 497.9 | 491.5 | 485.1 | 483.5 | 478.7 | 478.7 | 480.3 |
| 7.5°  | 517.0  | 517.0  | 512.3 | 504.3 | 496.3 | 485.1 | 474.0 | 466.0 | 458.0 | 456.4 | 454.8 |
| 10°   | 531.4  | 528.2  | 523.4 | 509.1 | 496.3 | 478.7 | 461.2 | 440.4 | 424.5 | 416.5 | 413.3 |
| 12.5° | 542.6  | 541.0  | 531.4 | 515.5 | 494.7 | 467.6 | 427.7 | 379.8 | 341.5 | 320.8 | 320.8 |
| 15°   | 558.5  | 555.3  | 541.0 | 518.6 | 489.9 | 426.1 | 344.7 | 271.3 | 229.8 | 207.5 | 204.3 |
| 17.5° | 574.5  | 568.1  | 550.6 | 520.2 | 469.2 | 351.1 | 241.0 | 173.9 | 145.2 | 134.0 | 130.9 |
| 20°   | 593.6  | 582.5  | 556.9 | 521.8 | 418.1 | 255.3 | 156.4 | 116.5 | 105.3 | 100.5 | 102.1 |
| 22.5° | 619.2  | 600.0  | 563.3 | 512.3 | 341.5 | 166.0 | 110.1 | 94.2  | 87.8  | 83.0  | 83.0  |
| 25°   | 651.1  | 624.0  | 574.5 | 485.1 | 247.4 | 111.7 | 87.8  | 78.2  | 71.8  | 68.6  | 67.0  |
| 27.5° | 679.8  | 646.3  | 585.7 | 437.3 | 158.0 | 87.8  | 73.4  | 65.4  | 59.0  | 57.4  | 55.9  |
| 30°   | 718.1  | 671.8  | 596.8 | 360.7 | 103.7 | 71.8  | 62.2  | 54.3  | 49.5  | 47.9  | 47.9  |
| 32.5° | 783.5  | 721.3  | 617.6 | 274.5 | 78.2  | 62.2  | 52.7  | 46.3  | 43.1  | 41.5  | 41.5  |
| 35°   | 860.1  | 782.0  | 635.1 | 191.5 | 67.0  | 52.7  | 44.7  | 39.9  | 38.3  | 36.7  | 36.7  |
| 37.5° | 939.9  | 853.8  | 638.3 | 121.3 | 59.0  | 46.3  | 39.9  | 36.7  | 33.5  | 33.5  | 33.5  |
| 40°   | 1083.6 | 979.8  | 624.0 | 81.4  | 51.1  | 41.5  | 35.1  | 33.5  | 30.3  | 30.3  | 30.3  |
| 42.5° | 1251.1 | 1133.0 | 587.3 | 65.4  | 46.3  | 36.7  | 33.5  | 30.3  | 27.1  | 27.1  | 25.5  |
| 45°   | 1468.2 | 1307.0 | 525.0 | 57.4  | 41.5  | 33.5  | 30.3  | 27.1  | 25.5  | 23.9  | 23.9  |
| 47.5° | 1672.4 | 1504.9 | 466.0 | 51.1  | 38.3  | 31.9  | 27.1  | 23.9  | 22.3  | 22.3  | 22.3  |
| 50°   | 1867.1 | 1656.5 | 397.4 | 47.9  | 35.1  | 30.3  | 25.5  | 22.3  | 20.7  | 19.1  | 19.1  |
| 52.5° | 2007.5 | 1776.1 | 333.5 | 43.1  | 31.9  | 27.1  | 23.9  | 20.7  | 17.6  | 16.0  | 16.0  |
| 55°   | 2163.9 | 1897.4 | 276.1 | 38.3  | 30.3  | 25.5  | 20.7  | 17.6  | 14.4  | 12.8  | 12.8  |
| 57.5° | 2339.5 | 2015.5 | 223.4 | 35.1  | 28.7  | 22.3  | 17.6  | 14.4  | 11.2  | 9.6   | 9.6   |
| 60°   | 2513.4 | 2109.7 | 178.7 | 31.9  | 25.5  | 20.7  | 16.0  | 11.2  | 8.0   | 6.4   | 6.4   |
| 62.5° | 2687.4 | 2173.5 | 137.2 | 28.7  | 23.9  | 17.6  | 12.8  | 8.0   | 4.8   | 3.2   | 3.2   |
| 65°   | 2759.2 | 2156.0 | 102.1 | 25.5  | 20.7  | 14.4  | 11.2  | 8.0   | 4.8   | 3.2   | 3.2   |
| 67.5° | 2559.7 | 1938.9 | 71.8  | 25.5  | 19.1  | 14.4  | 9.6   | 6.4   | 3.2   | 1.6   | 1.6   |
| 70°   | 1998.0 | 1496.9 | 52.7  | 25.5  | 19.1  | 14.4  | 9.6   | 6.4   | 3.2   | 1.6   | 1.6   |
| 72.5° | 1133.0 | 833.0  | 39.9  | 22.3  | 17.6  | 12.8  | 9.6   | 6.4   | 3.2   | 1.6   | 1.6   |
| 75°   | 403.7  | 268.1  | 30.3  | 20.7  | 16.0  | 11.2  | 9.6   | 6.4   | 3.2   | 1.6   | 1.6   |
| 77.5° | 97.3   | 68.6   | 23.9  | 17.6  | 14.4  | 11.2  | 8.0   | 6.4   | 4.8   | 1.6   | 1.6   |
| 80°   | 39.9   | 28.7   | 19.1  | 14.4  | 11.2  | 9.6   | 8.0   | 6.4   | 3.2   | 1.6   | 1.6   |
| 82.5° | 17.6   | 14.4   | 8.0   | 8.0   | 6.4   | 6.4   | 6.4   | 6.4   | 3.2   | 1.6   | 1.6   |
| 85°   | 8.0    | 6.4    | 3.2   | 3.2   | 1.6   | 1.6   | 1.6   | 3.2   | 3.2   | 1.6   | 1.6   |
| 87.5° | 4.8    | 3.2    | 3.2   | 3.2   | 1.6   | 1.6   | 1.6   | 0.0   | 0.0   | 0.0   | 0.0   |
| 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)