

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: P397880

Luminaire Tested: **ARCH-S-PA1-50-830-U-T2U-HSS**

Issue Date: 5/19/2020

Test Information

Test Method: LM-79-08
Report Number: P397880
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-S-PA1-50-830-U-T2U-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4266 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

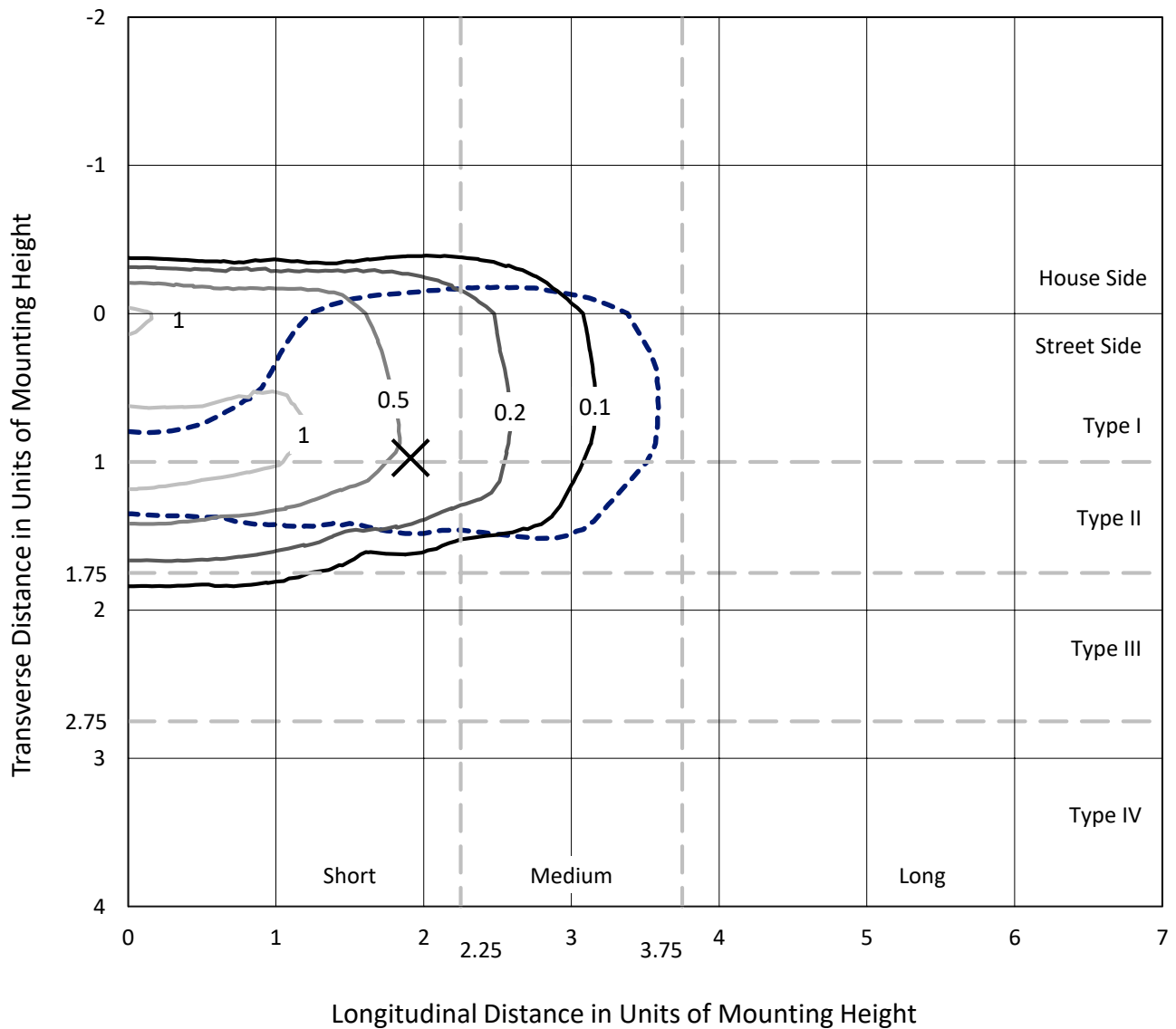
Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P397880
 CATALOG NUMBER: ARCH-S-PA1-50-830-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

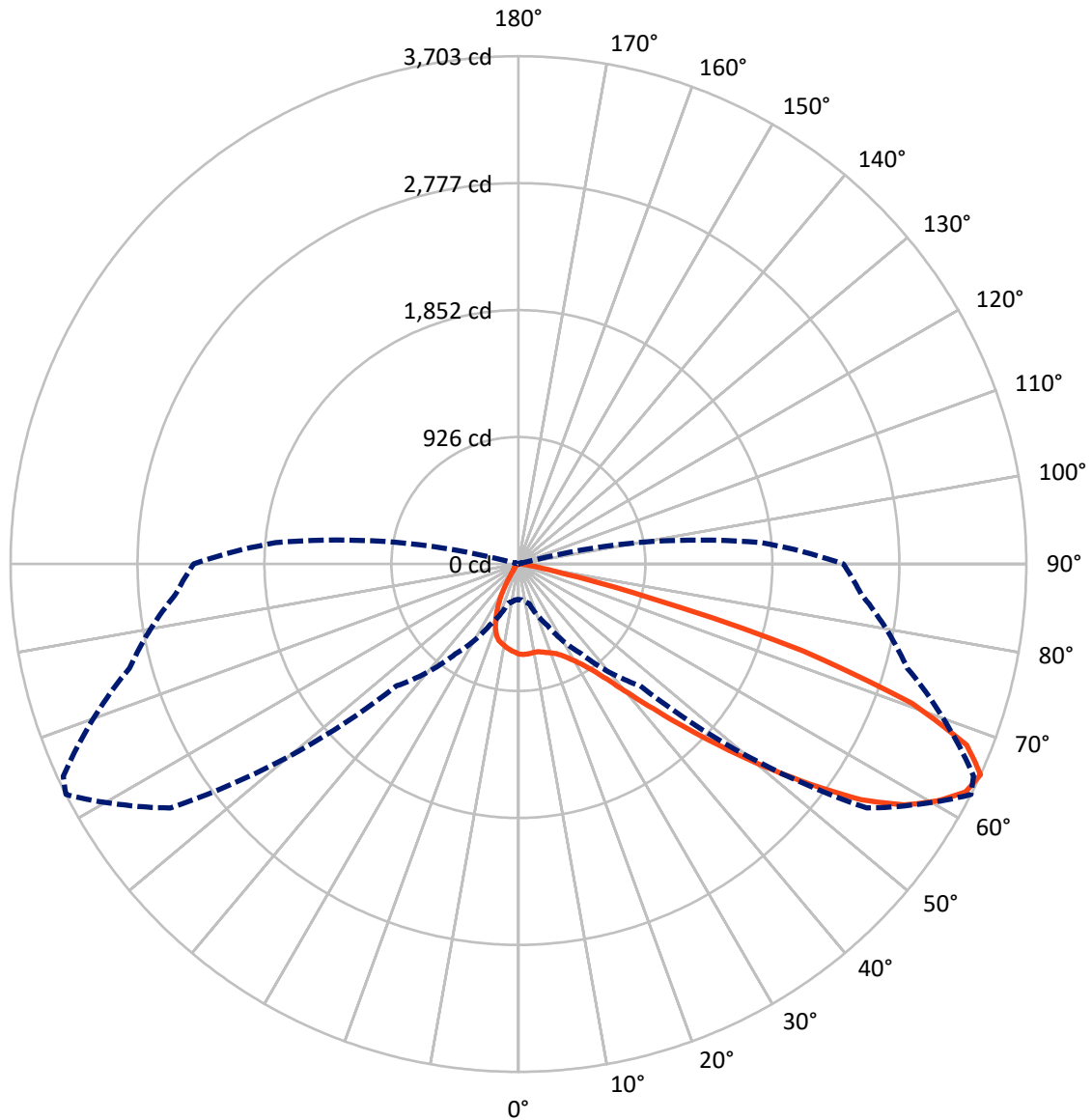
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P397880
CATALOG NUMBER: ARCH-S-PA1-50-830-U-T2U-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P397880

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T2U-HSS

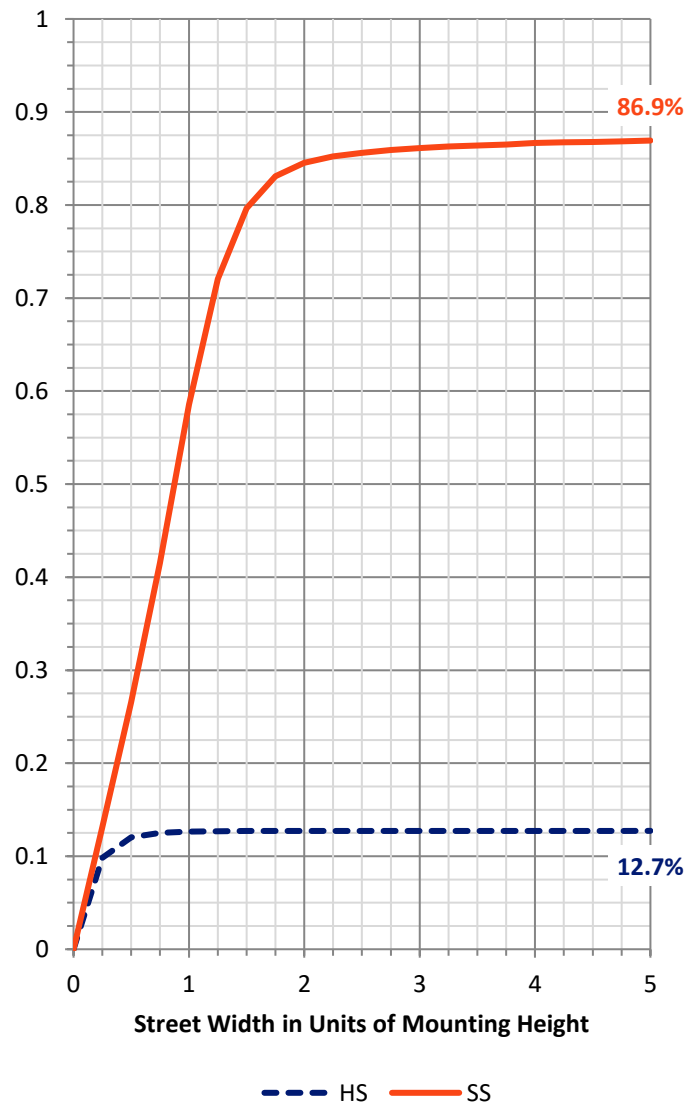
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 549.0 | 0.0 | 549.0 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 3717.0 | 0.0 | 3717.0 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 4266.0 | 0.0 | 4266.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.0 | 1.4 |
| 10°-20° | 147.9 | 3.5 |
| 20°-30° | 219.3 | 5.1 |
| 30°-40° | 407.1 | 9.5 |
| 40°-50° | 862.4 | 20.2 |
| 50°-60° | 1192.5 | 28.0 |
| 60°-70° | 954.7 | 22.4 |
| 70°-80° | 396.6 | 9.3 |
| 80°-90° | 25.5 | 0.6 |
| 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° | 4266.0 | 100.0 |
| 0°-180° | 4266.0 | 100.0 |



REPORT NUMBER: P397880

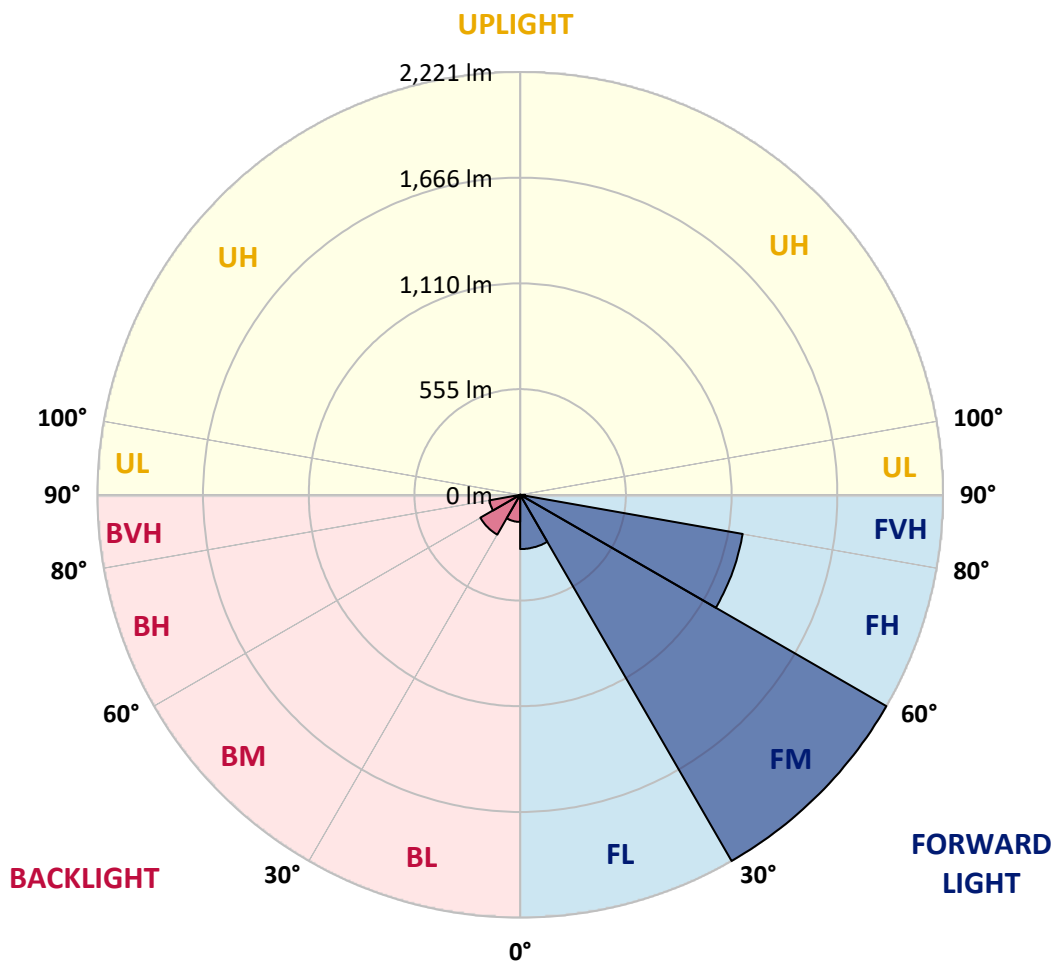
CATALOG NUMBER: ARCH-S-PA1-50-830-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 284.9 | 6.7 | | | |
| FM | (30°-60°) | 2220.9 | 52.1 | | | |
| FH | (60°-80°) | 1186.9 | 27.8 | | | G1/1800 |
| FVH | (80°-90°) | 24.3 | 0.6 | | | G1/100 |
| BL | (0°-30°) | 142.3 | 3.3 | B1/500 | | |
| BM | (30°-60°) | 241.2 | 5.7 | B1/1000 | | |
| BH | (60°-80°) | 164.4 | 3.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.2 | 0.0 | | | 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





REPORT NUMBER: P397880

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 63° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 |
| 2.5° | 668.5 | 666.8 | 665.2 | 664.4 | 664.4 | 663.6 | 660.4 | 659.6 | 658.0 | 656.4 | 654.8 |
| 5° | 662.0 | 659.6 | 658.8 | 659.6 | 660.4 | 662.0 | 660.4 | 660.4 | 658.8 | 657.2 | 654.0 |
| 7.5° | 645.9 | 644.3 | 645.1 | 647.5 | 648.3 | 654.0 | 654.8 | 657.2 | 657.2 | 655.6 | 653.2 |
| 10° | 626.6 | 625.8 | 625.8 | 629.8 | 633.8 | 641.9 | 647.5 | 654.0 | 654.8 | 654.8 | 650.7 |
| 12.5° | 612.1 | 611.3 | 613.7 | 618.5 | 626.6 | 637.0 | 646.7 | 656.4 | 658.0 | 658.8 | 652.3 |
| 15° | 603.2 | 603.2 | 606.4 | 616.1 | 627.4 | 641.9 | 653.2 | 666.0 | 667.6 | 666.8 | 658.0 |
| 17.5° | 595.2 | 596.0 | 602.4 | 618.5 | 631.4 | 650.7 | 664.4 | 678.9 | 679.7 | 678.9 | 664.4 |
| 20° | 591.9 | 593.6 | 603.2 | 624.2 | 638.7 | 660.4 | 678.1 | 692.6 | 693.4 | 690.2 | 670.9 |
| 22.5° | 600.8 | 601.6 | 613.7 | 636.2 | 649.9 | 674.1 | 696.6 | 710.3 | 711.1 | 706.3 | 680.5 |
| 25° | 631.4 | 631.4 | 641.9 | 661.2 | 673.3 | 697.4 | 721.6 | 737.7 | 737.7 | 732.1 | 702.3 |
| 27.5° | 703.1 | 696.6 | 694.2 | 699.9 | 703.9 | 729.7 | 755.4 | 775.6 | 774.8 | 766.7 | 730.5 |
| 30° | 841.6 | 825.5 | 799.7 | 770.7 | 756.2 | 774.0 | 798.1 | 823.9 | 823.1 | 810.2 | 765.1 |
| 32.5° | 1074.4 | 1051.0 | 989.8 | 913.3 | 851.3 | 831.1 | 853.7 | 881.9 | 882.7 | 867.4 | 820.7 |
| 35° | 1400.5 | 1363.5 | 1254.0 | 1147.6 | 1005.9 | 929.4 | 935.8 | 966.4 | 976.1 | 968.1 | 914.1 |
| 37.5° | 1714.6 | 1680.8 | 1576.1 | 1428.7 | 1236.2 | 1080.0 | 1052.6 | 1079.2 | 1090.5 | 1090.5 | 1033.3 |
| 40° | 2031.1 | 1991.7 | 1899.1 | 1750.9 | 1547.9 | 1315.2 | 1216.9 | 1238.7 | 1250.7 | 1253.2 | 1178.3 |
| 42.5° | 2284.8 | 2259.1 | 2188.2 | 2073.0 | 1882.9 | 1727.5 | 1453.7 | 1441.6 | 1452.9 | 1444.0 | 1346.6 |
| 45° | 2460.4 | 2440.3 | 2391.1 | 2347.6 | 2255.0 | 2176.9 | 1770.2 | 1688.9 | 1696.1 | 1665.5 | 1535.8 |
| 47.5° | 2496.6 | 2474.1 | 2463.6 | 2524.0 | 2590.1 | 2609.4 | 2159.2 | 1982.8 | 1975.6 | 1907.9 | 1732.3 |
| 50° | 2338.8 | 2341.2 | 2379.9 | 2552.2 | 2827.6 | 3001.6 | 2610.2 | 2314.6 | 2288.0 | 2137.4 | 1915.2 |
| 52.5° | 1998.1 | 2036.8 | 2134.2 | 2413.7 | 2900.1 | 3286.7 | 3061.2 | 2666.6 | 2625.5 | 2360.5 | 2052.1 |
| 55° | 1563.2 | 1613.2 | 1773.4 | 2094.8 | 2748.7 | 3414.0 | 3441.3 | 3032.2 | 2938.8 | 2528.0 | 2158.4 |
| 57.5° | 1162.1 | 1177.4 | 1364.3 | 1657.4 | 2390.3 | 3289.1 | 3636.2 | 3314.1 | 3194.1 | 2661.7 | 2263.9 |
| 60° | 724.0 | 733.7 | 931.0 | 1262.0 | 1810.5 | 2827.6 | 3636.2 | 3508.2 | 3393.8 | 2781.7 | 2360.5 |
| 62.5° | 450.2 | 453.4 | 527.5 | 865.0 | 1230.6 | 2097.2 | 3485.6 | 3658.8 | 3567.0 | 2867.9 | 2443.5 |
| 65° | 259.3 | 262.5 | 297.2 | 488.9 | 800.5 | 1255.6 | 3100.7 | 3703.1 | 3662.0 | 2936.4 | 2507.9 |
| 67.5° | 189.3 | 190.9 | 204.6 | 274.6 | 523.5 | 645.1 | 2329.1 | 3525.1 | 3576.6 | 2970.2 | 2506.3 |
| 70° | 164.3 | 166.7 | 184.4 | 214.2 | 377.7 | 396.2 | 1185.5 | 3044.3 | 3188.4 | 2921.9 | 2431.4 |
| 72.5° | 126.4 | 129.7 | 156.2 | 201.3 | 277.0 | 285.1 | 429.3 | 2166.4 | 2384.7 | 2619.9 | 2226.0 |
| 75° | 87.0 | 90.2 | 116.8 | 165.9 | 228.7 | 213.4 | 236.0 | 997.0 | 1258.0 | 1757.3 | 1694.5 |
| 77.5° | 55.6 | 56.4 | 73.3 | 120.8 | 197.3 | 151.4 | 161.9 | 325.4 | 456.6 | 794.9 | 799.7 |
| 80° | 37.0 | 37.9 | 45.1 | 78.1 | 135.3 | 140.1 | 99.9 | 150.6 | 165.1 | 231.9 | 161.1 |
| 82.5° | 22.6 | 22.6 | 30.6 | 49.1 | 82.1 | 116.0 | 65.2 | 78.9 | 84.6 | 89.4 | 41.9 |
| 85° | 8.9 | 8.9 | 18.5 | 32.2 | 51.5 | 54.0 | 41.1 | 45.9 | 48.3 | 52.3 | 19.3 |
| 87.5° | 2.4 | 2.4 | 10.5 | 17.7 | 22.6 | 25.0 | 25.0 | 22.6 | 24.2 | 29.8 | 9.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P397880

CATALOG NUMBER: ARCH-S-PA1-50-830-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 | 657.2 |
| 2.5° | 654.0 | 651.5 | 648.3 | 645.1 | 641.9 | 639.5 | 637.0 | 637.0 | 635.4 | 633.0 | 631.4 |
| 5° | 652.3 | 648.3 | 641.1 | 635.4 | 626.6 | 620.1 | 615.3 | 611.3 | 608.9 | 603.2 | 602.4 |
| 7.5° | 649.9 | 645.1 | 634.6 | 623.4 | 608.9 | 597.6 | 586.3 | 578.3 | 570.2 | 563.8 | 562.1 |
| 10° | 645.9 | 640.3 | 625.0 | 608.9 | 588.7 | 567.8 | 541.2 | 510.6 | 482.4 | 466.3 | 461.5 |
| 12.5° | 645.9 | 638.7 | 618.5 | 596.8 | 567.8 | 516.2 | 448.6 | 380.9 | 328.6 | 305.2 | 298.8 |
| 15° | 649.9 | 640.3 | 613.7 | 583.9 | 529.9 | 425.2 | 315.7 | 226.3 | 169.1 | 151.4 | 147.4 |
| 17.5° | 654.0 | 640.3 | 606.4 | 566.2 | 460.7 | 308.5 | 179.6 | 119.2 | 100.7 | 96.6 | 96.6 |
| 20° | 655.6 | 638.7 | 596.8 | 533.2 | 368.1 | 191.7 | 107.1 | 89.4 | 82.1 | 79.7 | 79.7 |
| 22.5° | 662.0 | 639.5 | 589.5 | 485.6 | 267.4 | 112.8 | 84.6 | 74.9 | 67.7 | 65.2 | 65.2 |
| 25° | 678.1 | 649.1 | 591.1 | 425.2 | 171.5 | 85.4 | 71.7 | 62.0 | 54.8 | 51.5 | 51.5 |
| 27.5° | 703.9 | 670.9 | 600.0 | 355.2 | 107.9 | 73.3 | 60.4 | 49.9 | 44.3 | 41.1 | 41.1 |
| 30° | 732.9 | 695.0 | 604.0 | 274.6 | 80.5 | 62.0 | 49.1 | 39.5 | 35.4 | 33.0 | 32.2 |
| 32.5° | 783.6 | 736.9 | 600.8 | 188.5 | 66.0 | 52.3 | 39.5 | 31.4 | 28.2 | 27.4 | 27.4 |
| 35° | 865.0 | 810.2 | 594.4 | 118.4 | 54.8 | 41.9 | 31.4 | 25.8 | 23.4 | 22.6 | 21.7 |
| 37.5° | 975.3 | 917.3 | 575.0 | 78.1 | 45.1 | 33.0 | 25.8 | 21.7 | 19.3 | 18.5 | 18.5 |
| 40° | 1109.8 | 1039.7 | 538.0 | 59.6 | 38.7 | 26.6 | 21.7 | 18.5 | 16.9 | 16.1 | 16.1 |
| 42.5° | 1263.6 | 1175.8 | 479.2 | 51.5 | 32.2 | 22.6 | 18.5 | 15.3 | 14.5 | 13.7 | 13.7 |
| 45° | 1431.9 | 1318.4 | 397.9 | 45.9 | 27.4 | 18.5 | 15.3 | 13.7 | 12.1 | 12.1 | 11.3 |
| 47.5° | 1610.7 | 1461.7 | 306.0 | 40.3 | 23.4 | 16.1 | 13.7 | 11.3 | 10.5 | 9.7 | 9.7 |
| 50° | 1783.1 | 1589.8 | 215.0 | 34.6 | 19.3 | 13.7 | 11.3 | 9.7 | 8.9 | 8.1 | 8.1 |
| 52.5° | 1904.7 | 1667.1 | 152.2 | 29.8 | 16.1 | 12.1 | 8.9 | 7.2 | 6.4 | 6.4 | 6.4 |
| 55° | 2002.1 | 1715.4 | 106.3 | 25.0 | 13.7 | 10.5 | 7.2 | 5.6 | 5.6 | 4.8 | 4.8 |
| 57.5° | 2094.0 | 1746.8 | 78.1 | 20.9 | 11.3 | 8.1 | 5.6 | 4.0 | 4.0 | 3.2 | 3.2 |
| 60° | 2189.0 | 1763.8 | 59.6 | 16.9 | 9.7 | 6.4 | 4.0 | 3.2 | 2.4 | 2.4 | 2.4 |
| 62.5° | 2284.8 | 1774.2 | 45.9 | 13.7 | 8.1 | 4.8 | 3.2 | 2.4 | 1.6 | 0.8 | 0.8 |
| 65° | 2368.6 | 1777.4 | 35.4 | 10.5 | 6.4 | 3.2 | 2.4 | 0.8 | 0.0 | 0.0 | 0.0 |
| 67.5° | 2393.6 | 1740.4 | 27.4 | 8.1 | 4.8 | 2.4 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 2325.9 | 1642.1 | 20.9 | 6.4 | 4.0 | 1.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2064.2 | 1377.2 | 16.1 | 4.0 | 3.2 | 1.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1477.0 | 734.5 | 11.3 | 3.2 | 2.4 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 679.7 | 284.3 | 8.1 | 2.4 | 1.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 132.9 | 70.9 | 3.2 | 1.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 30.6 | 12.1 | 1.6 | 1.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 10.5 | 4.0 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.0 | 1.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 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)