

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: P400116

Luminaire Tested: **ARCH-L-PA3-230-830-U-T4W-HSS**

Issue Date: 5/19/2020

Test Information

Test Method: LM-79-08
Report Number: P400116
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-L-PA3-230-830-U-T4W-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 980mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18177 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G4

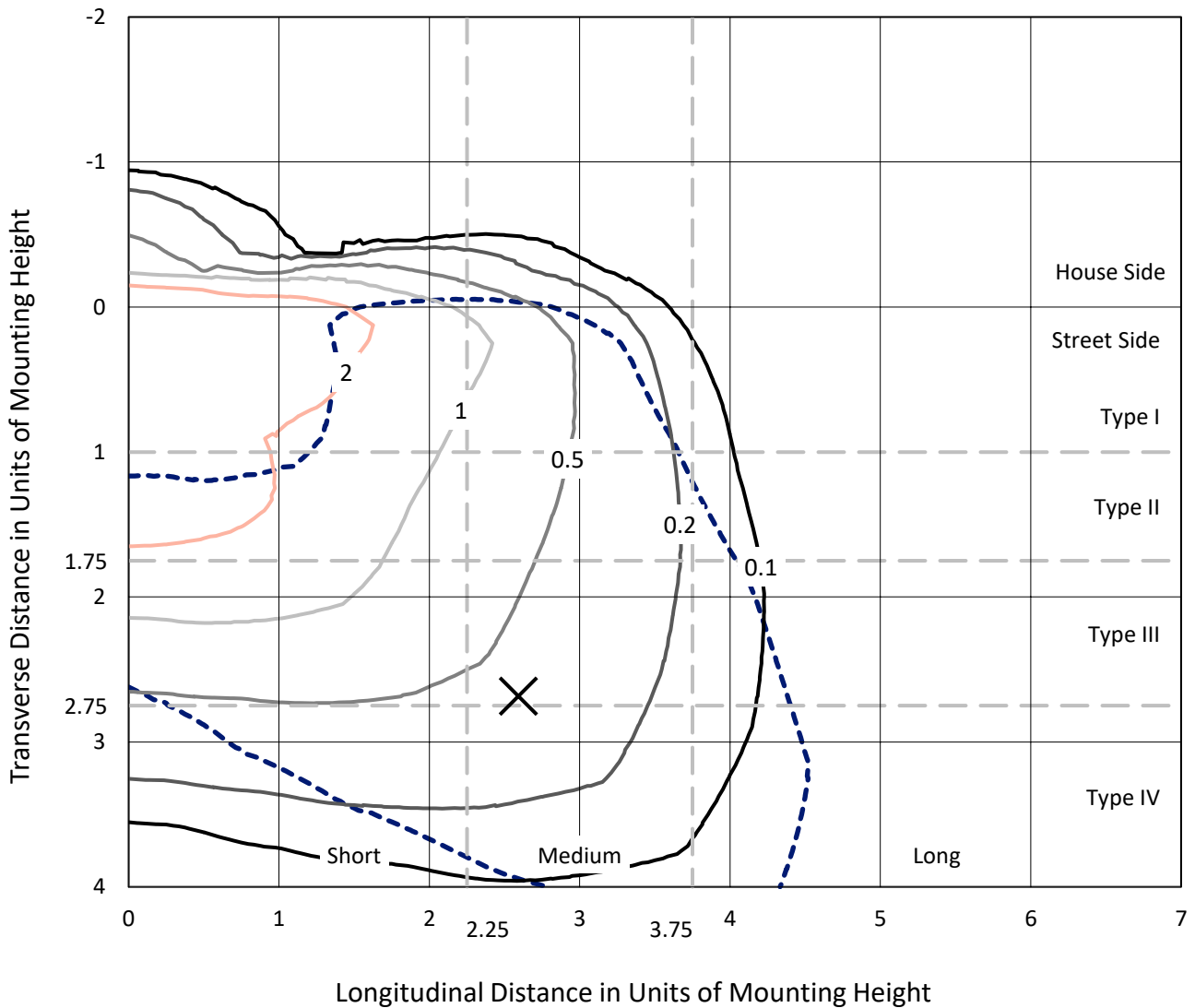
Input Watts (W): 229
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P400116
 CATALOG NUMBER: ARCH-L-PA3-230-830-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

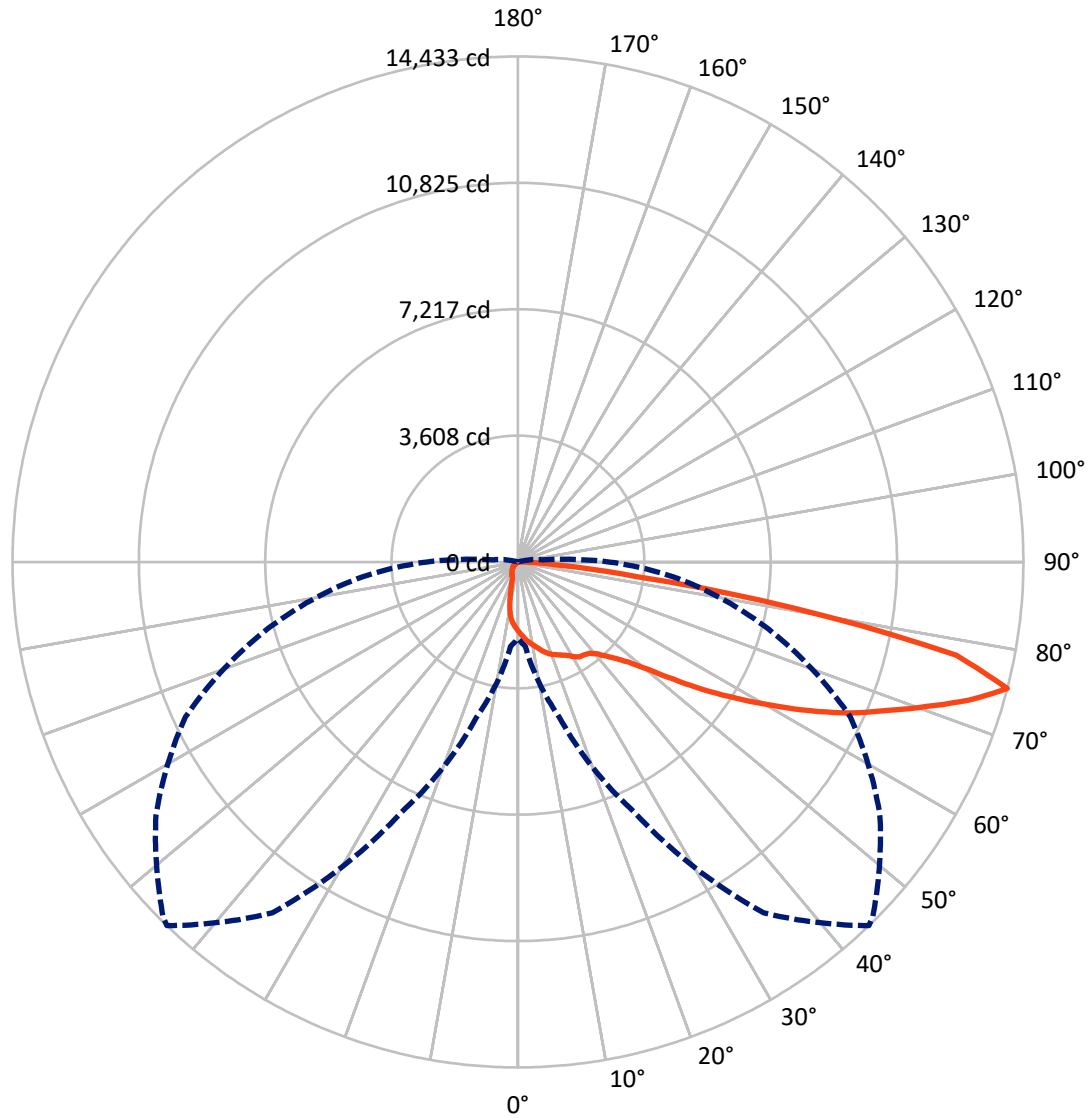
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Medium - N/A

REPORT NUMBER: P400116
CATALOG NUMBER: ARCH-L-PA3-230-830-U-T4W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P400116
 CATALOG NUMBER: ARCH-L-PA3-230-830-U-T4W-HSS

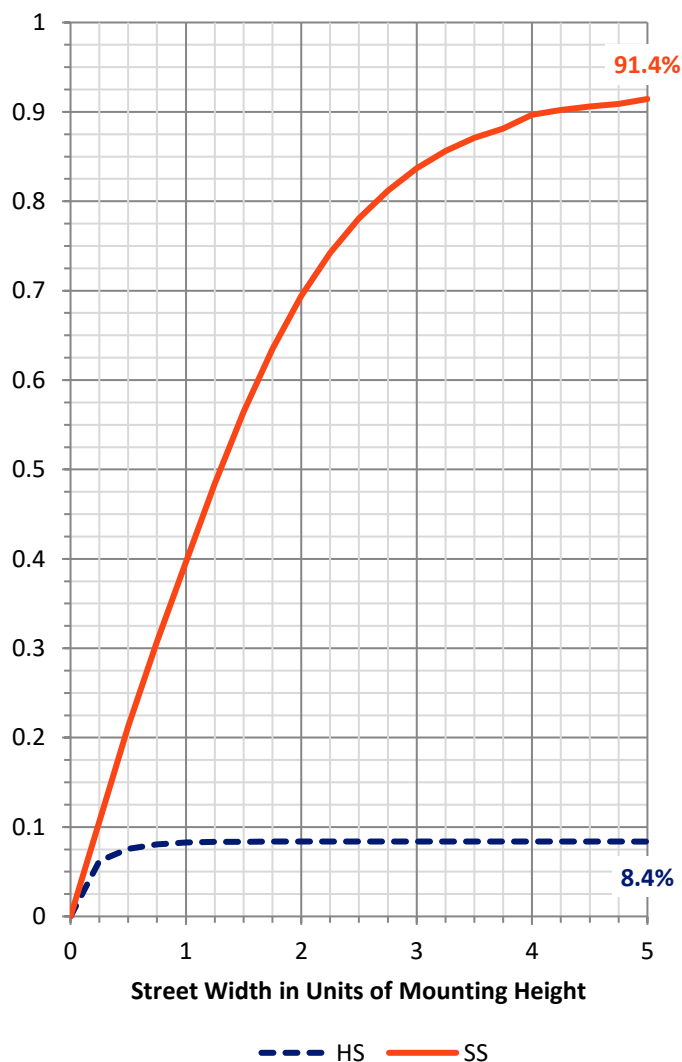
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1532.9 | 0.0 | 1532.9 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 16644.1 | 0.0 | 16644.1 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 18177.0 | 0.0 | 18177.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 186.6 | 1.0 |
| 10°-20° | 522.8 | 2.9 |
| 20°-30° | 862.8 | 4.7 |
| 30°-40° | 1252.3 | 6.9 |
| 40°-50° | 2035.7 | 11.2 |
| 50°-60° | 3588.7 | 19.7 |
| 60°-70° | 5157.7 | 28.4 |
| 70°-80° | 4130.2 | 22.7 |
| 80°-90° | 440.0 | 2.4 |
| 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° | 18177.0 | 100.0 |
| 0°-180° | 18177.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P400116

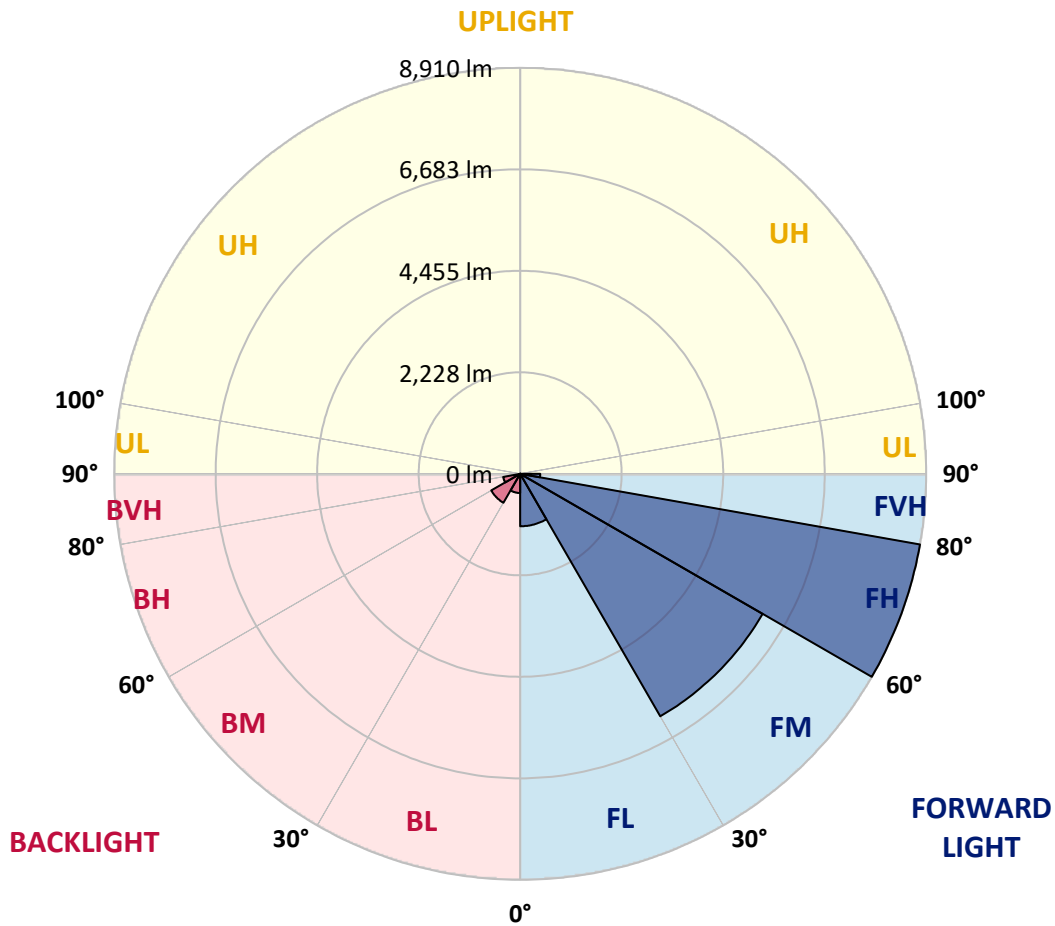
CATALOG NUMBER: ARCH-L-PA3-230-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1151.1 | 6.3 | | | |
| FM (30°-60°) | 6144.0 | 33.8 | | | |
| FH (60°-80°) | 8910.0 | 49.0 | | | G4/12000 |
| FVH (80°-90°) | 438.9 | 2.4 | | | G3/500 |
| BL (0°-30°) | 421.1 | 2.3 | B1/500 | | |
| BM (30°-60°) | 732.8 | 4.0 | B1/1000 | | |
| BH (60°-80°) | 377.9 | 2.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.1 | 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-G4

Type IV Medium





REPORT NUMBER: P400116

CATALOG NUMBER: ARCH-L-PA3-230-830-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 |
| 2.5° | 2156.2 | 2152.9 | 2142.8 | 2126.0 | 2109.3 | 2092.5 | 2089.2 | 2062.3 | 2032.2 | 2008.7 | 1988.6 |
| 5° | 2347.4 | 2344.0 | 2327.2 | 2290.4 | 2253.5 | 2209.9 | 2206.5 | 2142.8 | 2085.8 | 2022.1 | 1968.4 |
| 7.5° | 2545.2 | 2538.5 | 2508.3 | 2451.3 | 2387.6 | 2320.5 | 2313.8 | 2219.9 | 2136.1 | 2052.3 | 1975.1 |
| 10° | 2699.5 | 2692.8 | 2649.2 | 2582.1 | 2494.9 | 2411.1 | 2401.0 | 2303.8 | 2219.9 | 2112.6 | 2008.7 |
| 12.5° | 2850.4 | 2837.0 | 2780.0 | 2706.2 | 2598.9 | 2518.4 | 2508.3 | 2407.7 | 2307.1 | 2196.5 | 2069.0 |
| 15° | 2991.2 | 2974.5 | 2920.8 | 2826.9 | 2712.9 | 2635.8 | 2629.1 | 2521.7 | 2417.8 | 2290.4 | 2149.5 |
| 17.5° | 3088.5 | 3081.8 | 3018.0 | 2914.1 | 2803.4 | 2739.7 | 2733.0 | 2622.3 | 2518.4 | 2384.3 | 2233.4 |
| 20° | 3138.8 | 3138.8 | 3078.4 | 2964.4 | 2863.8 | 2820.2 | 2810.1 | 2706.2 | 2605.6 | 2478.2 | 2320.5 |
| 22.5° | 3148.8 | 3158.9 | 3111.9 | 2987.9 | 2914.1 | 2877.2 | 2870.5 | 2780.0 | 2682.7 | 2565.3 | 2417.8 |
| 25° | 3168.9 | 3168.9 | 3145.5 | 3011.3 | 2957.7 | 2947.6 | 2944.3 | 2863.8 | 2776.6 | 2659.2 | 2515.0 |
| 27.5° | 3192.4 | 3192.4 | 3175.7 | 3044.9 | 3024.8 | 3021.4 | 3018.0 | 2981.2 | 2910.7 | 2773.2 | 2629.1 |
| 30° | 3252.8 | 3256.1 | 3242.7 | 3111.9 | 3098.5 | 3135.4 | 3142.1 | 3122.0 | 3034.8 | 2863.8 | 2746.4 |
| 32.5° | 3403.7 | 3373.5 | 3336.6 | 3158.9 | 3182.4 | 3229.3 | 3232.7 | 3192.4 | 3098.5 | 2961.0 | 2887.3 |
| 35° | 3782.6 | 3604.9 | 3437.2 | 3199.1 | 3209.2 | 3256.1 | 3262.8 | 3259.5 | 3202.5 | 3085.1 | 3048.2 |
| 37.5° | 4134.7 | 3883.2 | 3645.1 | 3293.0 | 3259.5 | 3309.8 | 3323.2 | 3380.2 | 3336.6 | 3256.1 | 3266.2 |
| 40° | 4339.3 | 4242.0 | 4074.4 | 3551.2 | 3360.1 | 3437.2 | 3450.6 | 3537.8 | 3521.1 | 3487.5 | 3551.2 |
| 42.5° | 4969.7 | 4976.4 | 4795.3 | 3936.9 | 3544.5 | 3668.6 | 3685.4 | 3755.8 | 3779.3 | 3796.0 | 3950.3 |
| 45° | 5700.8 | 5724.2 | 5680.6 | 4631.0 | 3893.3 | 3933.5 | 3957.0 | 4050.9 | 4138.1 | 4245.4 | 4527.1 |
| 47.5° | 6579.3 | 6559.2 | 6398.3 | 5479.4 | 4500.2 | 4275.6 | 4292.3 | 4473.4 | 4624.3 | 4859.1 | 5261.5 |
| 50° | 7357.3 | 7407.6 | 7102.5 | 6270.8 | 5355.4 | 4815.5 | 4798.7 | 4976.4 | 5248.0 | 5576.7 | 6083.0 |
| 52.5° | 8142.0 | 8068.2 | 7655.8 | 7055.5 | 6368.1 | 5549.9 | 5499.6 | 5596.8 | 5979.1 | 6368.1 | 6887.9 |
| 55° | 8349.9 | 8356.6 | 8215.8 | 7914.0 | 7213.1 | 6441.9 | 6358.0 | 6351.3 | 6827.5 | 7092.4 | 7732.9 |
| 57.5° | 8759.0 | 8775.8 | 8809.3 | 8869.7 | 8537.7 | 7333.9 | 7246.7 | 7152.8 | 7615.5 | 7769.8 | 8581.3 |
| 60° | 9174.9 | 9195.0 | 9399.5 | 9724.8 | 9503.5 | 8296.3 | 8202.4 | 7981.1 | 8239.3 | 8447.2 | 9473.3 |
| 62.5° | 9121.2 | 9262.1 | 9855.6 | 10502.8 | 10476.0 | 9352.6 | 9235.2 | 8702.0 | 8866.4 | 9047.4 | 10291.5 |
| 65° | 8235.9 | 8386.8 | 9721.5 | 10717.4 | 11451.8 | 10395.5 | 10204.4 | 9446.5 | 9456.5 | 9674.5 | 11079.6 |
| 67.5° | 7444.5 | 7608.8 | 8883.1 | 10626.9 | 12095.7 | 11331.1 | 11133.2 | 10194.3 | 10036.7 | 10398.8 | 11502.1 |
| 70° | 6988.5 | 7152.8 | 8215.8 | 10345.2 | 12276.7 | 12367.3 | 12196.3 | 11049.4 | 10727.5 | 11059.5 | 11029.3 |
| 72.5° | 5469.4 | 5727.6 | 7364.0 | 9808.7 | 12471.2 | 13477.3 | 13343.1 | 12132.5 | 11314.3 | 10368.7 | 8396.9 |
| 75° | 2179.7 | 2417.8 | 4597.5 | 7893.9 | 12226.4 | 14433.0 | 14329.0 | 12618.8 | 10472.6 | 7404.3 | 4299.0 |
| 77.5° | 657.3 | 704.2 | 1277.6 | 3903.3 | 8963.6 | 12796.5 | 12763.0 | 10610.1 | 7411.0 | 3437.2 | 1173.7 |
| 80° | 218.0 | 241.4 | 392.3 | 1076.4 | 4091.1 | 7994.5 | 8145.4 | 6760.4 | 3366.8 | 788.0 | 238.1 |
| 82.5° | 90.5 | 100.6 | 197.8 | 432.6 | 1448.7 | 3443.9 | 3393.6 | 3028.1 | 1173.7 | 489.6 | 87.2 |
| 85° | 23.5 | 30.2 | 90.5 | 248.2 | 529.8 | 1187.1 | 1247.5 | 1016.1 | 664.0 | 405.8 | 26.8 |
| 87.5° | 0.0 | 0.0 | 43.6 | 100.6 | 238.1 | 358.8 | 375.6 | 308.5 | 375.6 | 305.2 | 13.4 |
| 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: P400116

CATALOG NUMBER: ARCH-L-PA3-230-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 | 1978.5 |
| 2.5° | 1971.8 | 1955.0 | 1924.8 | 1904.7 | 1877.9 | 1871.2 | 1857.8 | 1841.0 | 1837.7 | 1820.9 | 1824.2 |
| 5° | 1938.3 | 1911.4 | 1857.8 | 1820.9 | 1777.3 | 1763.9 | 1740.4 | 1723.6 | 1710.2 | 1686.8 | 1690.1 |
| 7.5° | 1931.6 | 1891.3 | 1817.5 | 1747.1 | 1676.7 | 1626.4 | 1556.0 | 1499.0 | 1452.0 | 1401.7 | 1411.8 |
| 10° | 1955.0 | 1904.7 | 1800.8 | 1703.5 | 1576.1 | 1415.1 | 1230.7 | 1110.0 | 1049.6 | 989.2 | 996.0 |
| 12.5° | 2002.0 | 1941.6 | 1807.5 | 1659.9 | 1401.7 | 1126.7 | 871.9 | 707.6 | 664.0 | 637.1 | 640.5 |
| 15° | 2072.4 | 1998.6 | 1827.6 | 1576.1 | 1167.0 | 814.9 | 580.1 | 509.7 | 526.5 | 536.5 | 536.5 |
| 17.5° | 2146.2 | 2062.3 | 1844.4 | 1425.2 | 902.1 | 570.1 | 472.8 | 466.1 | 489.6 | 513.1 | 513.1 |
| 20° | 2236.7 | 2129.4 | 1847.7 | 1234.0 | 650.6 | 462.8 | 446.0 | 446.0 | 462.8 | 489.6 | 489.6 |
| 22.5° | 2323.9 | 2203.2 | 1817.5 | 1016.1 | 496.3 | 429.2 | 429.2 | 429.2 | 439.3 | 466.1 | 469.5 |
| 25° | 2427.9 | 2293.7 | 1753.8 | 784.7 | 425.9 | 409.1 | 409.1 | 412.5 | 419.2 | 442.6 | 446.0 |
| 27.5° | 2538.5 | 2387.6 | 1646.5 | 573.4 | 389.0 | 385.6 | 389.0 | 392.3 | 395.7 | 419.2 | 425.9 |
| 30° | 2665.9 | 2491.6 | 1509.0 | 429.2 | 355.5 | 355.5 | 365.5 | 372.2 | 372.2 | 392.3 | 399.1 |
| 32.5° | 2813.5 | 2629.1 | 1344.7 | 355.5 | 321.9 | 318.6 | 335.3 | 345.4 | 345.4 | 362.2 | 368.9 |
| 35° | 2997.9 | 2769.9 | 1146.9 | 315.2 | 295.1 | 288.4 | 295.1 | 311.9 | 318.6 | 332.0 | 335.3 |
| 37.5° | 3242.7 | 2937.6 | 935.6 | 291.7 | 275.0 | 261.6 | 261.6 | 264.9 | 278.3 | 291.7 | 295.1 |
| 40° | 3554.6 | 3122.0 | 727.7 | 275.0 | 254.9 | 241.4 | 231.4 | 228.0 | 224.7 | 234.7 | 241.4 |
| 42.5° | 3946.9 | 3329.9 | 543.2 | 258.2 | 238.1 | 218.0 | 204.6 | 191.1 | 174.4 | 171.0 | 174.4 |
| 45° | 4449.9 | 3584.8 | 402.4 | 244.8 | 228.0 | 197.8 | 174.4 | 150.9 | 120.7 | 110.7 | 114.0 |
| 47.5° | 5043.5 | 3849.7 | 315.2 | 231.4 | 221.3 | 174.4 | 144.2 | 104.0 | 73.8 | 67.1 | 70.4 |
| 50° | 5673.9 | 4104.5 | 268.3 | 214.6 | 207.9 | 150.9 | 104.0 | 63.7 | 43.6 | 43.6 | 46.9 |
| 52.5° | 6210.5 | 4248.7 | 244.8 | 201.2 | 187.8 | 124.1 | 67.1 | 36.9 | 26.8 | 26.8 | 30.2 |
| 55° | 6730.2 | 4325.9 | 228.0 | 187.8 | 161.0 | 87.2 | 36.9 | 23.5 | 16.8 | 16.8 | 16.8 |
| 57.5° | 7266.8 | 4359.4 | 207.9 | 171.0 | 127.4 | 53.7 | 20.1 | 13.4 | 10.1 | 10.1 | 10.1 |
| 60° | 7743.0 | 4295.7 | 177.7 | 140.8 | 83.8 | 26.8 | 10.1 | 10.1 | 6.7 | 3.4 | 3.4 |
| 62.5° | 8142.0 | 4175.0 | 124.1 | 100.6 | 50.3 | 13.4 | 6.7 | 3.4 | 0.0 | 0.0 | 0.0 |
| 65° | 8386.8 | 3980.5 | 80.5 | 67.1 | 30.2 | 10.1 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 8316.4 | 3614.9 | 50.3 | 43.6 | 13.4 | 6.7 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 7504.9 | 2964.4 | 36.9 | 26.8 | 10.1 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 5409.0 | 2005.3 | 26.8 | 16.8 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 2602.2 | 714.3 | 16.8 | 13.4 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 637.1 | 157.6 | 10.1 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 140.8 | 30.2 | 6.7 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 46.9 | 13.4 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 16.8 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 10.1 | 3.4 | 0.0 | 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)