

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: P400053

Luminaire Tested: **ARCH-L-PA3-230-722-U-T4W-HSS**

Issue Date: 5/19/2020

Test Information

Test Method: LM-79-08
Report Number: P400053
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-PA3-230-722-U-T4W-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2200K, 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: 16816 lumens
Efficiency: N/A
Efficacy: 73.4 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

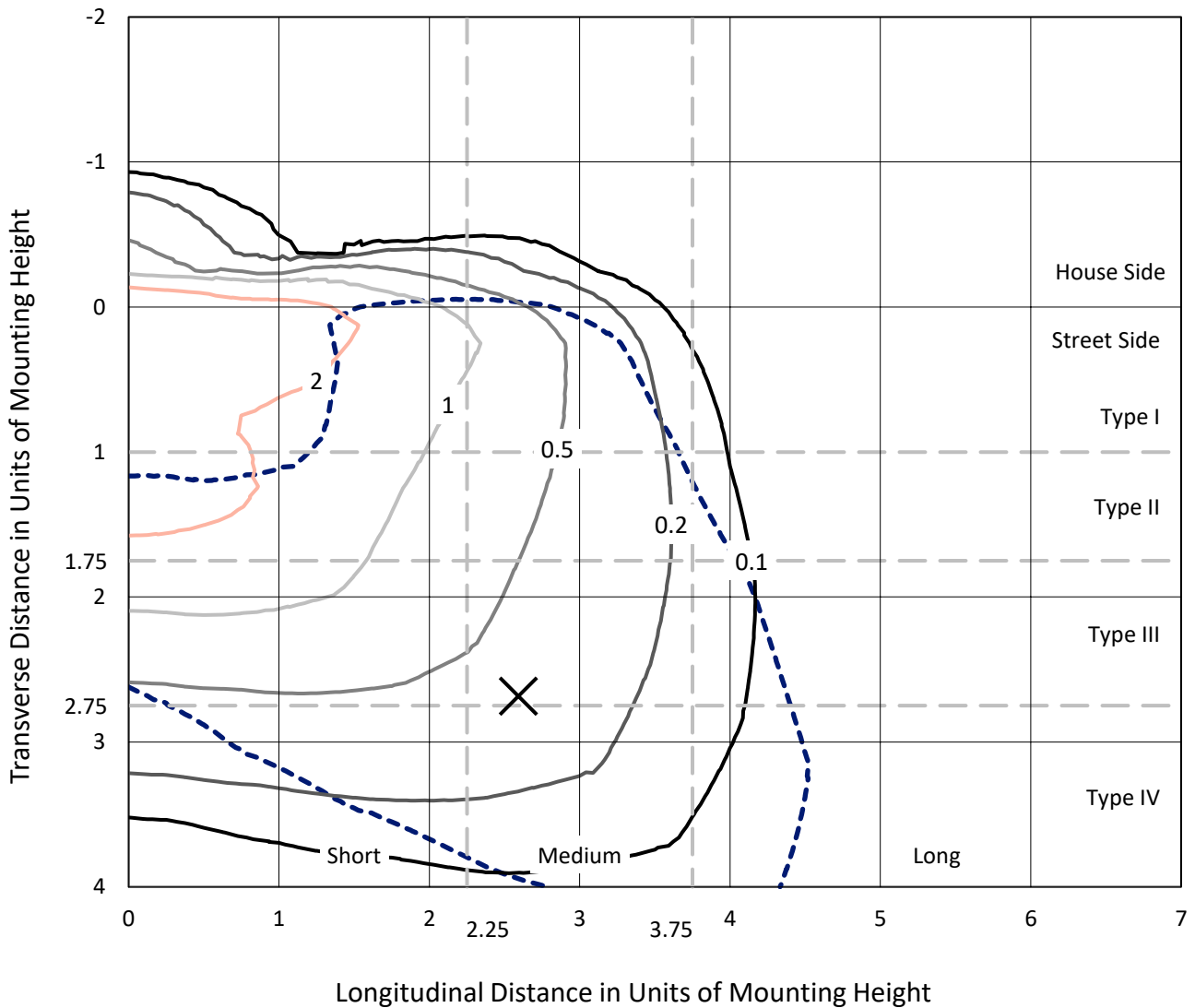
Input Watts (W): 229
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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 CATALOG NUMBER: ARCH-L-PA3-230-722-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

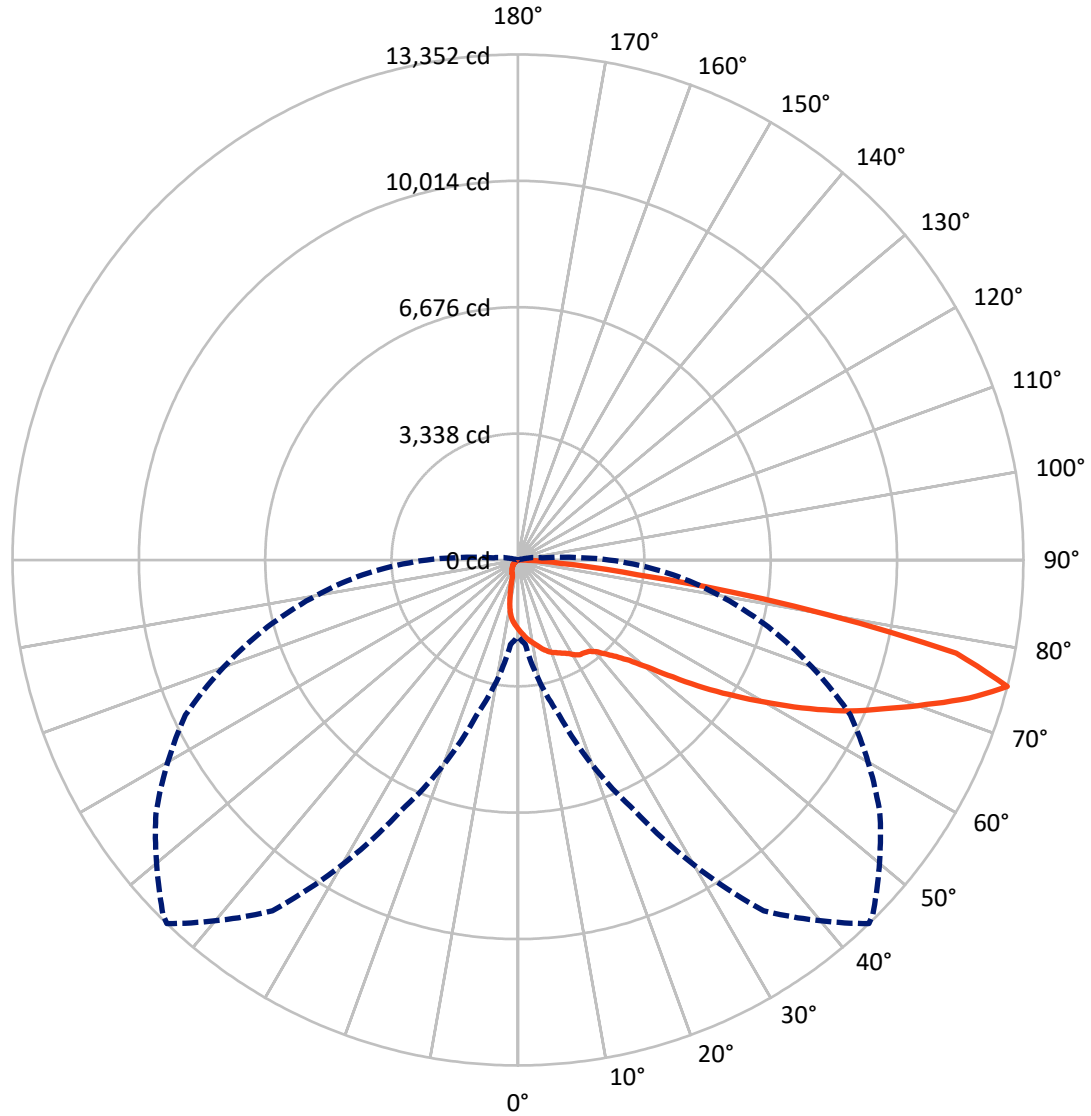
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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

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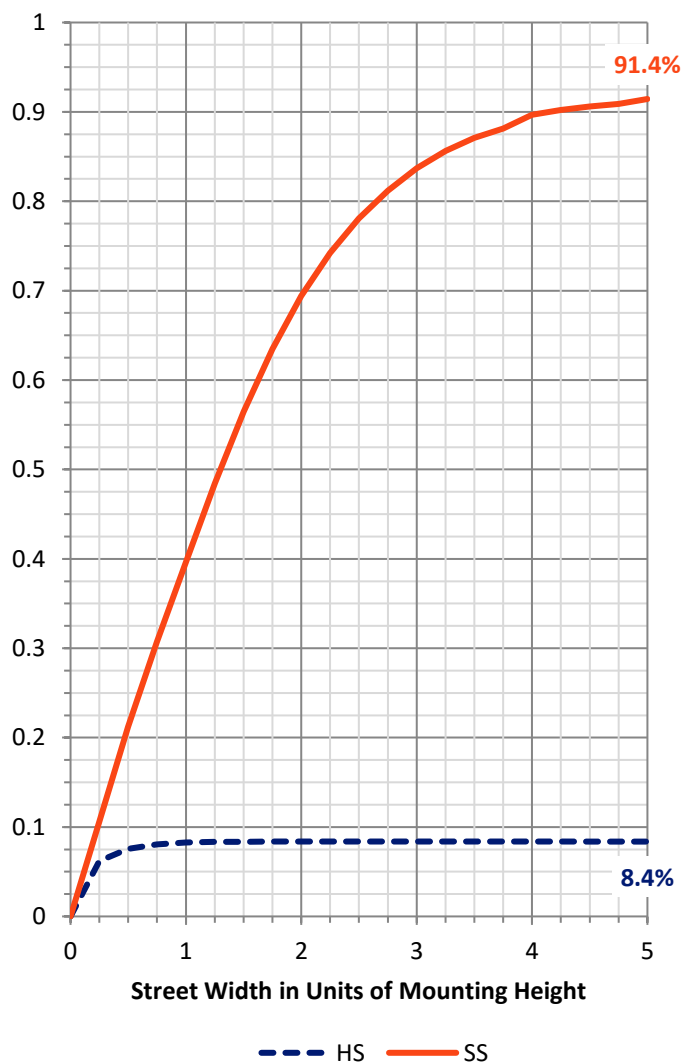
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1418.1 | 0.0 | 1418.1 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 15397.9 | 0.0 | 15397.9 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 16816.0 | 0.0 | 16816.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 172.6 | 1.0 |
| 10°-20° | 483.7 | 2.9 |
| 20°-30° | 798.2 | 4.7 |
| 30°-40° | 1158.5 | 6.9 |
| 40°-50° | 1883.3 | 11.2 |
| 50°-60° | 3320.0 | 19.7 |
| 60°-70° | 4771.6 | 28.4 |
| 70°-80° | 3821.0 | 22.7 |
| 80°-90° | 407.1 | 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° | 16816.0 | 100.0 |
| 0°-180° | 16816.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P400053

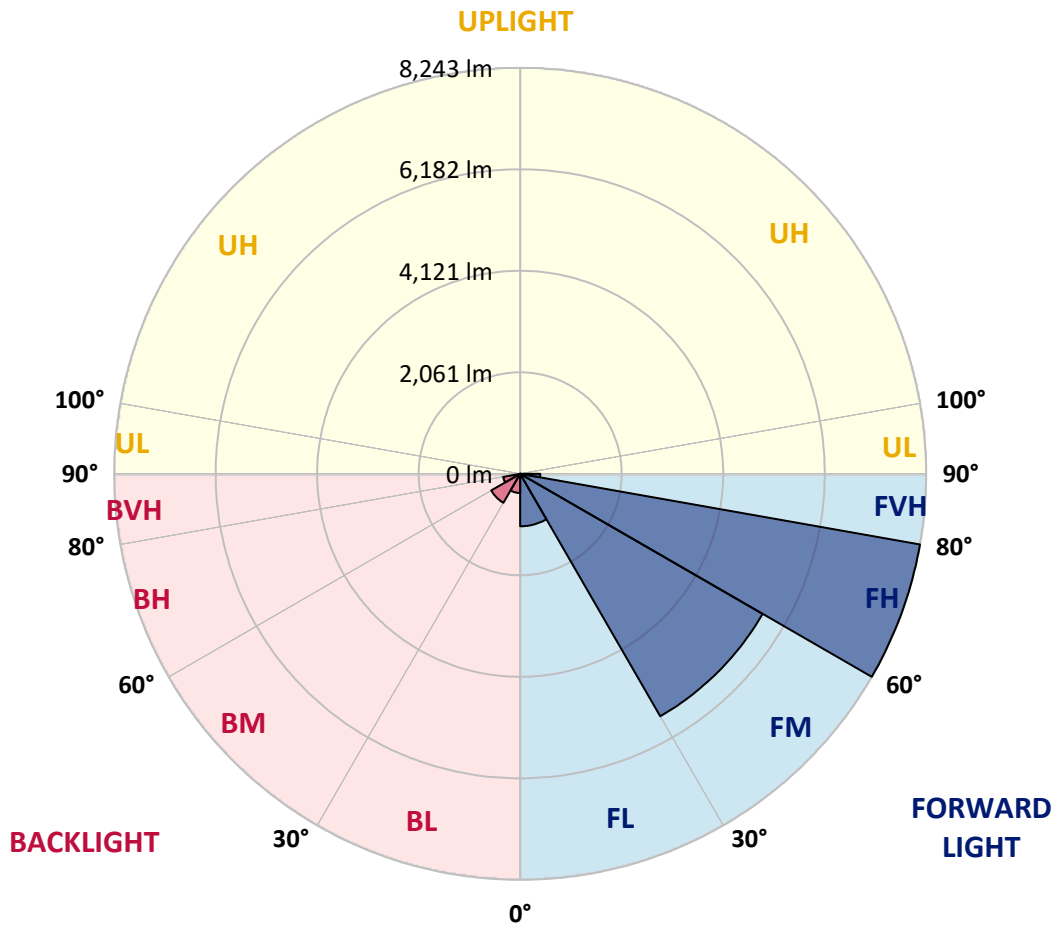
CATALOG NUMBER: ARCH-L-PA3-230-722-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1064.9 | 6.3 | | | |
| FM (30°-60°) | 5684.0 | 33.8 | | | |
| FH (60°-80°) | 8242.9 | 49.0 | | | G4/12000 |
| FVH (80°-90°) | 406.1 | 2.4 | | | G3/500 |
| BL (0°-30°) | 389.6 | 2.3 | B1/500 | | |
| BM (30°-60°) | 677.9 | 4.0 | B1/1000 | | |
| BH (60°-80°) | 349.6 | 2.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.0 | 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: P400053

CATALOG NUMBER: ARCH-L-PA3-230-722-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 |
| 2.5° | 1994.8 | 1991.7 | 1982.4 | 1966.9 | 1951.3 | 1935.8 | 1932.7 | 1907.9 | 1880.0 | 1858.3 | 1839.7 |
| 5° | 2171.6 | 2168.5 | 2153.0 | 2118.9 | 2084.7 | 2044.4 | 2041.3 | 1982.4 | 1929.6 | 1870.7 | 1821.1 |
| 7.5° | 2354.6 | 2348.4 | 2320.5 | 2267.8 | 2208.8 | 2146.8 | 2140.6 | 2053.7 | 1976.2 | 1898.6 | 1827.3 |
| 10° | 2497.4 | 2491.1 | 2450.8 | 2388.8 | 2308.1 | 2230.6 | 2221.2 | 2131.3 | 2053.7 | 1954.4 | 1858.3 |
| 12.5° | 2637.0 | 2624.5 | 2571.8 | 2503.6 | 2404.3 | 2329.8 | 2320.5 | 2227.5 | 2134.4 | 2032.0 | 1914.1 |
| 15° | 2767.3 | 2751.7 | 2702.1 | 2615.2 | 2509.8 | 2438.4 | 2432.2 | 2332.9 | 2236.8 | 2118.9 | 1988.6 |
| 17.5° | 2857.2 | 2851.0 | 2792.1 | 2695.9 | 2593.5 | 2534.6 | 2528.4 | 2426.0 | 2329.8 | 2205.7 | 2066.1 |
| 20° | 2903.8 | 2903.8 | 2847.9 | 2742.4 | 2649.4 | 2609.0 | 2599.7 | 2503.6 | 2410.5 | 2292.6 | 2146.8 |
| 22.5° | 2913.1 | 2922.4 | 2878.9 | 2764.2 | 2695.9 | 2661.8 | 2655.6 | 2571.8 | 2481.8 | 2373.3 | 2236.8 |
| 25° | 2931.7 | 2931.7 | 2910.0 | 2785.9 | 2736.2 | 2726.9 | 2723.8 | 2649.4 | 2568.7 | 2460.1 | 2326.7 |
| 27.5° | 2953.4 | 2953.4 | 2937.9 | 2816.9 | 2798.3 | 2795.2 | 2792.1 | 2757.9 | 2692.8 | 2565.6 | 2432.2 |
| 30° | 3009.2 | 3012.3 | 2999.9 | 2878.9 | 2866.5 | 2900.7 | 2906.9 | 2888.2 | 2807.6 | 2649.4 | 2540.8 |
| 32.5° | 3148.8 | 3120.9 | 3086.8 | 2922.4 | 2944.1 | 2987.5 | 2990.6 | 2953.4 | 2866.5 | 2739.3 | 2671.1 |
| 35° | 3499.4 | 3335.0 | 3179.9 | 2959.6 | 2968.9 | 3012.3 | 3018.5 | 3015.4 | 2962.7 | 2854.1 | 2820.0 |
| 37.5° | 3825.1 | 3592.5 | 3372.2 | 3046.5 | 3015.4 | 3062.0 | 3074.4 | 3127.1 | 3086.8 | 3012.3 | 3021.6 |
| 40° | 4014.4 | 3924.4 | 3769.3 | 3285.3 | 3108.5 | 3179.9 | 3192.3 | 3272.9 | 3257.4 | 3226.4 | 3285.3 |
| 42.5° | 4597.6 | 4603.8 | 4436.3 | 3642.1 | 3279.1 | 3393.9 | 3409.4 | 3474.6 | 3496.3 | 3511.8 | 3654.5 |
| 45° | 5273.9 | 5295.6 | 5255.3 | 4284.3 | 3601.8 | 3639.0 | 3660.7 | 3747.6 | 3828.2 | 3927.5 | 4188.1 |
| 47.5° | 6086.7 | 6068.1 | 5919.2 | 5069.2 | 4163.3 | 3955.4 | 3970.9 | 4138.5 | 4278.1 | 4495.2 | 4867.5 |
| 50° | 6806.4 | 6853.0 | 6570.7 | 5801.3 | 4954.4 | 4454.9 | 4439.4 | 4603.8 | 4855.1 | 5159.1 | 5627.6 |
| 52.5° | 7532.4 | 7464.1 | 7082.6 | 6527.2 | 5891.3 | 5134.3 | 5087.8 | 5177.7 | 5531.4 | 5891.3 | 6372.1 |
| 55° | 7724.7 | 7730.9 | 7600.6 | 7321.4 | 6673.1 | 5959.5 | 5882.0 | 5875.8 | 6316.3 | 6561.4 | 7153.9 |
| 57.5° | 8103.2 | 8118.7 | 8149.7 | 8205.6 | 7898.5 | 6784.7 | 6704.1 | 6617.2 | 7045.3 | 7188.0 | 7938.8 |
| 60° | 8487.9 | 8506.5 | 8695.8 | 8996.7 | 8791.9 | 7675.1 | 7588.2 | 7383.5 | 7622.4 | 7814.7 | 8764.0 |
| 62.5° | 8438.3 | 8568.6 | 9117.7 | 9716.4 | 9691.6 | 8652.3 | 8543.7 | 8050.5 | 8202.5 | 8370.0 | 9521.0 |
| 65° | 7619.3 | 7758.9 | 8993.6 | 9915.0 | 10594.4 | 9617.1 | 9440.3 | 8739.2 | 8748.5 | 8950.1 | 10250.0 |
| 67.5° | 6887.1 | 7039.1 | 8218.0 | 9831.2 | 11190.0 | 10482.7 | 10299.6 | 9431.0 | 9285.2 | 9620.2 | 10640.9 |
| 70° | 6465.2 | 6617.2 | 7600.6 | 9570.6 | 11357.5 | 11441.3 | 11283.1 | 10222.1 | 9924.3 | 10231.4 | 10203.5 |
| 72.5° | 5059.9 | 5298.7 | 6812.7 | 9074.2 | 11537.5 | 12468.1 | 12344.1 | 11224.1 | 10467.2 | 9592.3 | 7768.2 |
| 75° | 2016.5 | 2236.8 | 4253.3 | 7302.8 | 11311.0 | 13352.3 | 13256.1 | 11674.0 | 9688.5 | 6849.9 | 3977.2 |
| 77.5° | 608.1 | 651.5 | 1182.0 | 3611.1 | 8292.5 | 11838.4 | 11807.4 | 9815.7 | 6856.1 | 3179.9 | 1085.8 |
| 80° | 201.6 | 223.4 | 363.0 | 995.8 | 3784.8 | 7395.9 | 7535.5 | 6254.2 | 3114.7 | 729.0 | 220.3 |
| 82.5° | 83.8 | 93.1 | 183.0 | 400.2 | 1340.2 | 3186.1 | 3139.5 | 2801.4 | 1085.8 | 452.9 | 80.7 |
| 85° | 21.7 | 27.9 | 83.8 | 229.6 | 490.2 | 1098.2 | 1154.1 | 940.0 | 614.3 | 375.4 | 24.8 |
| 87.5° | 0.0 | 0.0 | 40.3 | 93.1 | 220.3 | 331.9 | 347.5 | 285.4 | 347.5 | 282.3 | 12.4 |
| 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-L-PA3-230-722-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 | 1830.4 |
| 2.5° | 1824.2 | 1808.6 | 1780.7 | 1762.1 | 1737.3 | 1731.1 | 1718.7 | 1703.2 | 1700.1 | 1684.5 | 1687.7 |
| 5° | 1793.1 | 1768.3 | 1718.7 | 1684.5 | 1644.2 | 1631.8 | 1610.1 | 1594.6 | 1582.2 | 1560.5 | 1563.6 |
| 7.5° | 1786.9 | 1749.7 | 1681.4 | 1616.3 | 1551.2 | 1504.6 | 1439.5 | 1386.7 | 1343.3 | 1296.8 | 1306.1 |
| 10° | 1808.6 | 1762.1 | 1665.9 | 1576.0 | 1458.1 | 1309.2 | 1138.5 | 1026.9 | 971.0 | 915.2 | 921.4 |
| 12.5° | 1852.1 | 1796.2 | 1672.1 | 1535.6 | 1296.8 | 1042.4 | 806.6 | 654.6 | 614.3 | 589.4 | 592.5 |
| 15° | 1917.2 | 1849.0 | 1690.8 | 1458.1 | 1079.6 | 753.9 | 536.7 | 471.5 | 487.1 | 496.4 | 496.4 |
| 17.5° | 1985.5 | 1907.9 | 1706.3 | 1318.5 | 834.5 | 527.4 | 437.4 | 431.2 | 452.9 | 474.7 | 474.7 |
| 20° | 2069.2 | 1970.0 | 1709.4 | 1141.6 | 601.8 | 428.1 | 412.6 | 412.6 | 428.1 | 452.9 | 452.9 |
| 22.5° | 2149.9 | 2038.2 | 1681.4 | 940.0 | 459.1 | 397.1 | 397.1 | 397.1 | 406.4 | 431.2 | 434.3 |
| 25° | 2246.1 | 2122.0 | 1622.5 | 725.9 | 394.0 | 378.5 | 378.5 | 381.6 | 387.8 | 409.5 | 412.6 |
| 27.5° | 2348.4 | 2208.8 | 1523.2 | 530.5 | 359.9 | 356.8 | 359.9 | 363.0 | 366.1 | 387.8 | 394.0 |
| 30° | 2466.3 | 2305.0 | 1396.0 | 397.1 | 328.8 | 328.8 | 338.2 | 344.4 | 344.4 | 363.0 | 369.2 |
| 32.5° | 2602.8 | 2432.2 | 1244.0 | 328.8 | 297.8 | 294.7 | 310.2 | 319.5 | 319.5 | 335.0 | 341.3 |
| 35° | 2773.5 | 2562.5 | 1061.0 | 291.6 | 273.0 | 266.8 | 273.0 | 288.5 | 294.7 | 307.1 | 310.2 |
| 37.5° | 2999.9 | 2717.6 | 865.5 | 269.9 | 254.4 | 242.0 | 242.0 | 245.1 | 257.5 | 269.9 | 273.0 |
| 40° | 3288.4 | 2888.2 | 673.2 | 254.4 | 235.8 | 223.4 | 214.1 | 211.0 | 207.9 | 217.2 | 223.4 |
| 42.5° | 3651.4 | 3080.6 | 502.6 | 238.9 | 220.3 | 201.6 | 189.2 | 176.8 | 161.3 | 158.2 | 161.3 |
| 45° | 4116.8 | 3316.4 | 372.3 | 226.5 | 211.0 | 183.0 | 161.3 | 139.6 | 111.7 | 102.4 | 105.5 |
| 47.5° | 4665.9 | 3561.4 | 291.6 | 214.1 | 204.8 | 161.3 | 133.4 | 96.2 | 68.3 | 62.0 | 65.1 |
| 50° | 5249.1 | 3797.2 | 248.2 | 198.5 | 192.3 | 139.6 | 96.2 | 58.9 | 40.3 | 40.3 | 43.4 |
| 52.5° | 5745.5 | 3930.6 | 226.5 | 186.1 | 173.7 | 114.8 | 62.0 | 34.1 | 24.8 | 24.8 | 27.9 |
| 55° | 6226.3 | 4002.0 | 211.0 | 173.7 | 148.9 | 80.7 | 34.1 | 21.7 | 15.5 | 15.5 | 15.5 |
| 57.5° | 6722.7 | 4033.0 | 192.3 | 158.2 | 117.9 | 49.6 | 18.6 | 12.4 | 9.3 | 9.3 | 9.3 |
| 60° | 7163.2 | 3974.0 | 164.4 | 130.3 | 77.6 | 24.8 | 9.3 | 9.3 | 6.2 | 3.1 | 3.1 |
| 62.5° | 7532.4 | 3862.4 | 114.8 | 93.1 | 46.5 | 12.4 | 6.2 | 3.1 | 0.0 | 0.0 | 0.0 |
| 65° | 7758.9 | 3682.4 | 74.5 | 62.0 | 27.9 | 9.3 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 7693.7 | 3344.3 | 46.5 | 40.3 | 12.4 | 6.2 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 6943.0 | 2742.4 | 34.1 | 24.8 | 9.3 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 5004.0 | 1855.2 | 24.8 | 15.5 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 2407.4 | 660.8 | 15.5 | 12.4 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 589.4 | 145.8 | 9.3 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 130.3 | 27.9 | 6.2 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 43.4 | 12.4 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 15.5 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 9.3 | 3.1 | 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)