

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: P236962

Luminaire Tested: **ARCH-L-AF72-90-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P236962
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-L-AF72-90-D-U-T2R-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 400mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10674.5 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 93
Input Voltage (V): NR
Input Current (A_{in}): 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

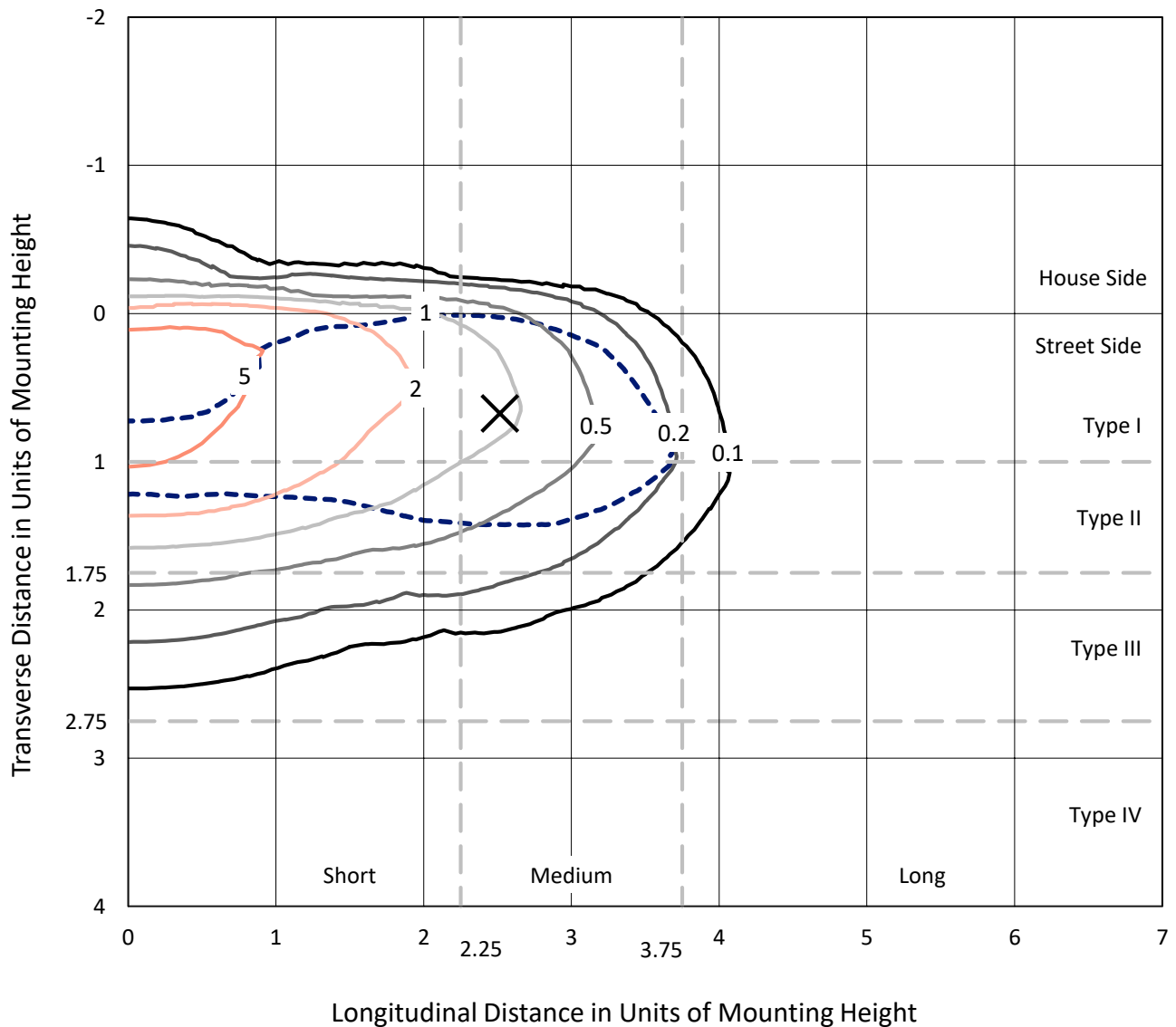


REPORT NUMBER: P236962

CATALOG NUMBER: ARCH-L-AF72-90-D-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

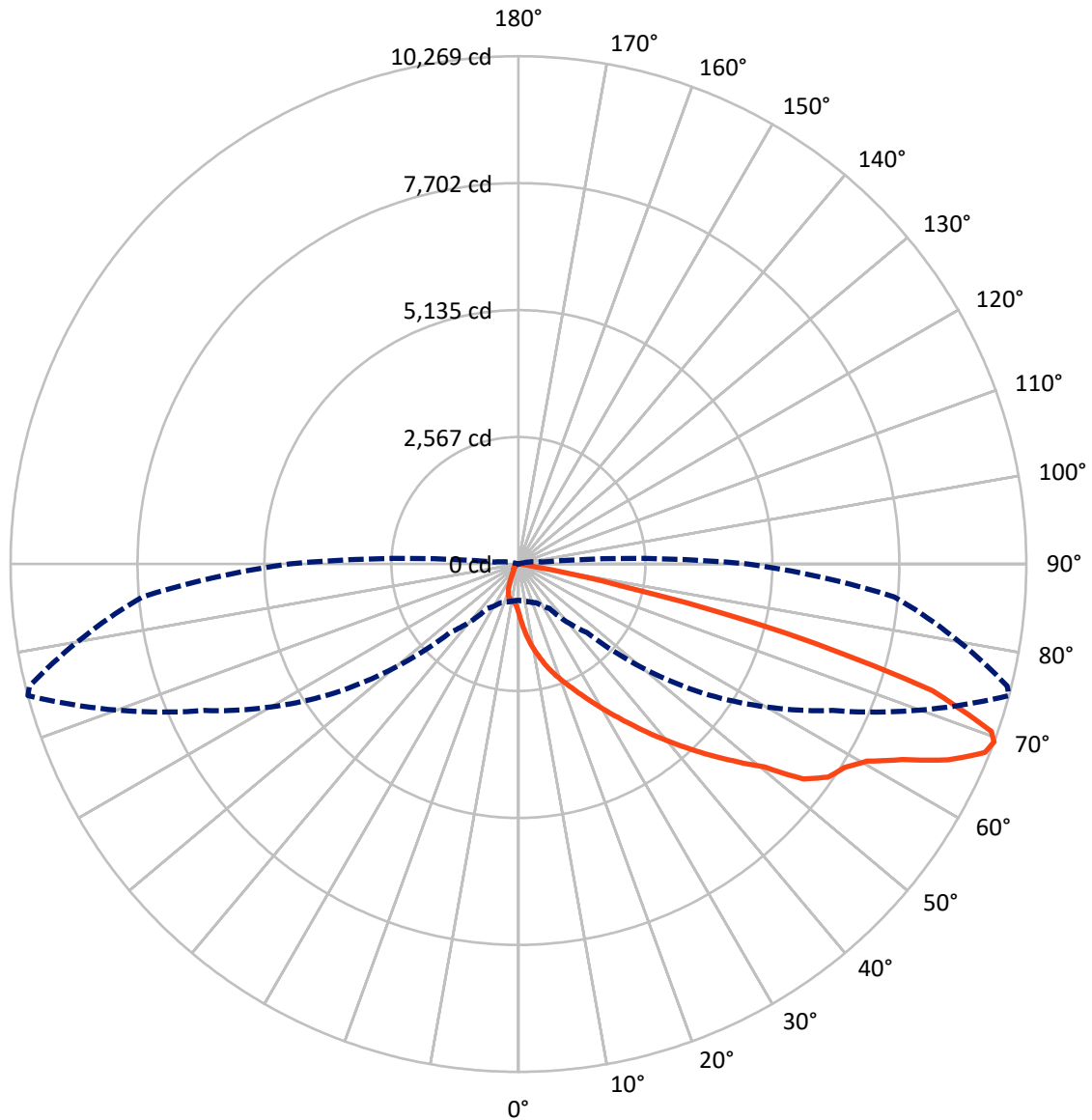


Based on 20 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P236962

CATALOG NUMBER: ARCH-L-AF72-90-D-U-T2R-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



REPORT NUMBER: P236962

CATALOG NUMBER: ARCH-L-AF72-90-D-U-T2R-HSS

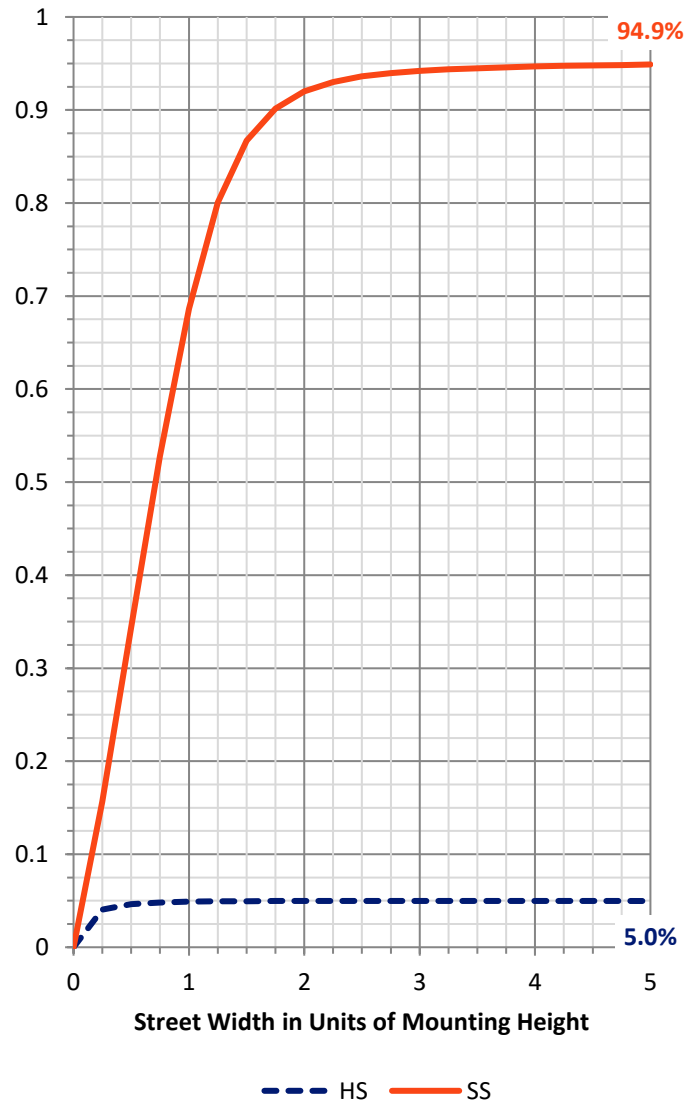
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 532.6 | 0.0 | 532.6 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 10141.9 | 0.0 | 10141.9 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 10674.5 | 0.0 | 10674.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 115.8 | 1.1 |
| 10°-20° | 414.1 | 3.9 |
| 20°-30° | 790.5 | 7.4 |
| 30°-40° | 1418.0 | 13.3 |
| 40°-50° | 2172.4 | 20.4 |
| 50°-60° | 2524.9 | 23.7 |
| 60°-70° | 2235.8 | 20.9 |
| 70°-80° | 964.4 | 9.0 |
| 80°-90° | 38.6 | 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° | 10674.5 | 100.0 |
| 0°-180° | 10674.5 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P236962

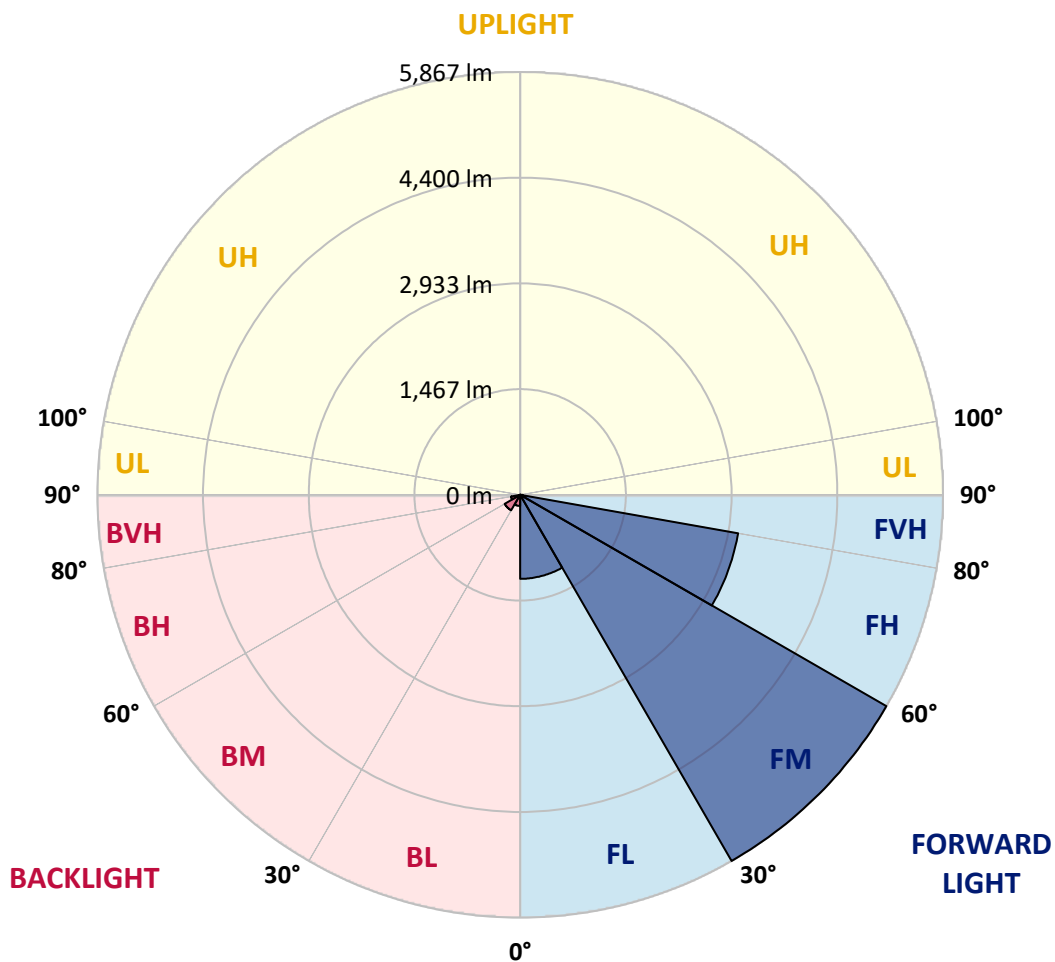
CATALOG NUMBER: ARCH-L-AF72-90-D-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1165.7 | 10.9 | | | |
| FM | (30°-60°) | 5867.0 | 55.0 | | | |
| FH | (60°-80°) | 3071.2 | 28.8 | | | G2/5000 |
| FVH | (80°-90°) | 38.1 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 154.7 | 1.4 | B1/500 | | |
| BM | (30°-60°) | 248.3 | 2.3 | B1/1000 | | |
| BH | (60°-80°) | 129.1 | 1.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 0.6 | 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-G2

Type II Medium





REPORT NUMBER: P236962

CATALOG NUMBER: ARCH-L-AF72-90-D-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 0° | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 |
| 2.5° | 1636.2 | 1620.0 | 1604.0 | 1585.6 | 1544.0 | 1472.6 | 1382.7 | 1286.0 | 1166.1 | 1145.4 | 1048.5 |
| 5° | 1986.5 | 1979.6 | 1963.5 | 1938.1 | 1892.0 | 1813.7 | 1712.3 | 1569.4 | 1368.9 | 1334.3 | 1129.2 |
| 7.5° | 2233.1 | 2228.5 | 2214.7 | 2184.7 | 2143.2 | 2064.8 | 1958.8 | 1804.5 | 1571.7 | 1532.5 | 1230.6 |
| 10° | 2454.4 | 2452.0 | 2440.6 | 2412.8 | 2371.4 | 2286.1 | 2173.2 | 2011.8 | 1765.3 | 1721.5 | 1348.1 |
| 12.5° | 2654.9 | 2657.1 | 2652.5 | 2638.7 | 2608.7 | 2528.1 | 2399.0 | 2223.9 | 1952.0 | 1903.5 | 1488.7 |
| 15° | 2772.4 | 2779.3 | 2797.7 | 2825.4 | 2834.6 | 2770.0 | 2636.3 | 2442.8 | 2143.2 | 2101.8 | 1650.0 |
| 17.5° | 2733.2 | 2740.1 | 2797.7 | 2892.2 | 2982.1 | 2991.3 | 2871.4 | 2650.3 | 2332.2 | 2290.7 | 1809.1 |
| 20° | 2638.7 | 2647.9 | 2707.9 | 2836.8 | 3012.1 | 3134.2 | 3085.7 | 2876.0 | 2512.0 | 2461.2 | 1961.2 |
| 22.5° | 2744.7 | 2744.7 | 2763.2 | 2841.5 | 3000.5 | 3191.8 | 3256.4 | 3101.9 | 2696.3 | 2634.1 | 2113.3 |
| 25° | 3108.8 | 3101.9 | 3062.7 | 3030.5 | 3081.1 | 3251.8 | 3385.4 | 3332.4 | 2913.0 | 2841.5 | 2274.6 |
| 27.5° | 3569.7 | 3602.0 | 3528.3 | 3410.7 | 3295.5 | 3369.2 | 3500.6 | 3560.5 | 3152.6 | 3078.9 | 2440.6 |
| 30° | 4086.0 | 4099.8 | 4012.2 | 3855.5 | 3652.7 | 3581.2 | 3636.6 | 3756.4 | 3413.1 | 3332.4 | 2613.3 |
| 32.5° | 4551.5 | 4540.0 | 4466.2 | 4302.5 | 4051.4 | 3896.9 | 3811.7 | 3913.1 | 3696.5 | 3604.3 | 2790.8 |
| 35° | 4964.0 | 4973.2 | 4883.4 | 4694.3 | 4447.8 | 4284.1 | 4081.4 | 4090.6 | 4014.5 | 3908.5 | 2995.9 |
| 37.5° | 5335.0 | 5318.8 | 5233.6 | 5044.7 | 4821.1 | 4643.7 | 4429.4 | 4274.9 | 4362.5 | 4251.9 | 3226.4 |
| 40° | 5636.9 | 5620.8 | 5530.9 | 5346.6 | 5136.8 | 4991.6 | 4823.4 | 4521.5 | 4728.9 | 4602.2 | 3472.9 |
| 42.5° | 5876.5 | 5858.1 | 5782.1 | 5604.6 | 5401.9 | 5272.8 | 5192.1 | 4825.7 | 5120.7 | 4993.9 | 3749.5 |
| 45° | 5994.1 | 5978.0 | 5931.9 | 5798.2 | 5620.8 | 5507.9 | 5547.1 | 5176.0 | 5540.1 | 5434.1 | 4053.6 |
| 47.5° | 5855.9 | 5848.9 | 5901.9 | 5878.9 | 5777.5 | 5717.6 | 5853.5 | 5558.5 | 5980.3 | 5876.5 | 4404.0 |
| 50° | 5436.4 | 5447.9 | 5602.3 | 5793.6 | 5842.0 | 5913.5 | 6104.8 | 5961.9 | 6452.7 | 6342.1 | 4807.3 |
| 52.5° | 4401.7 | 4480.0 | 4945.6 | 5406.5 | 5763.6 | 6033.3 | 6399.7 | 6538.0 | 7222.4 | 7114.1 | 5436.4 |
| 55° | 3286.2 | 3318.6 | 3825.5 | 4613.7 | 5447.9 | 6024.1 | 6618.6 | 6876.8 | 7602.7 | 7492.1 | 5602.3 |
| 57.5° | 2606.5 | 2617.9 | 2869.2 | 3673.4 | 4798.0 | 5816.7 | 6733.9 | 6998.9 | 7768.6 | 7676.4 | 5848.9 |
| 60° | 2046.4 | 2060.2 | 2242.3 | 2795.4 | 3883.1 | 5256.6 | 6568.0 | 7104.9 | 8093.6 | 8019.8 | 6279.9 |
| 62.5° | 1592.4 | 1606.2 | 1716.9 | 2041.8 | 2913.0 | 4394.8 | 6233.8 | 7275.4 | 8711.1 | 8676.6 | 6985.0 |
| 65° | 1233.0 | 1237.6 | 1313.6 | 1465.7 | 2058.0 | 3461.5 | 5825.9 | 7434.5 | 9545.5 | 9515.5 | 7556.6 |
| 67.5° | 910.3 | 917.2 | 970.2 | 1064.7 | 1389.7 | 2486.6 | 5157.5 | 7312.4 | 10174.6 | 10087.0 | 7764.0 |
| 69° | 735.2 | 742.0 | 788.2 | 864.2 | 1097.0 | 1958.8 | 4546.8 | 7010.4 | 10269.0 | 10186.0 | 7632.6 |
| 70° | 629.1 | 633.7 | 679.9 | 744.4 | 935.7 | 1663.8 | 4063.0 | 6750.0 | 10144.6 | 10063.9 | 7333.0 |
| 72.5° | 403.2 | 426.4 | 472.4 | 513.9 | 619.9 | 1101.6 | 2742.4 | 5597.7 | 8752.7 | 8614.4 | 5742.9 |
| 75° | 223.5 | 230.5 | 313.4 | 364.1 | 412.6 | 716.7 | 1525.6 | 3491.3 | 5567.8 | 5470.9 | 3071.9 |
| 77.5° | 184.3 | 188.9 | 221.3 | 276.5 | 276.5 | 401.0 | 576.1 | 1375.8 | 2117.9 | 1910.5 | 832.0 |
| 80° | 129.1 | 133.7 | 168.3 | 182.1 | 198.1 | 225.9 | 186.7 | 301.9 | 327.2 | 290.4 | 124.5 |
| 82.5° | 89.9 | 94.5 | 115.2 | 149.8 | 159.0 | 106.0 | 69.2 | 89.9 | 94.5 | 94.5 | 48.4 |
| 85° | 16.2 | 23.0 | 85.3 | 124.5 | 94.5 | 32.2 | 39.2 | 32.2 | 30.0 | 32.2 | 11.6 |
| 87.5° | 0.0 | 0.0 | 53.0 | 59.9 | 50.7 | 13.8 | 16.2 | 11.6 | 7.0 | 9.2 | 4.6 |
| 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: P236962

CATALOG NUMBER: ARCH-L-AF72-90-D-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 | 993.3 |
| 2.5° | 1000.1 | 951.8 | 868.8 | 808.8 | 758.2 | 719.0 | 702.9 | 677.5 | 659.1 | 668.3 | 656.8 |
| 5° | 1027.9 | 942.5 | 808.8 | 723.6 | 663.7 | 613.1 | 571.5 | 539.3 | 513.9 | 509.3 | 504.7 |
| 7.5° | 1071.6 | 949.5 | 774.4 | 668.3 | 578.5 | 500.1 | 435.6 | 387.2 | 350.3 | 350.3 | 336.4 |
| 10° | 1131.5 | 967.9 | 753.6 | 613.1 | 479.4 | 373.4 | 308.8 | 262.7 | 244.3 | 241.9 | 237.3 |
| 12.5° | 1214.4 | 1002.5 | 737.4 | 541.6 | 373.4 | 271.9 | 232.7 | 216.7 | 209.7 | 207.5 | 205.1 |
| 15° | 1327.4 | 1053.1 | 719.0 | 454.0 | 283.5 | 223.5 | 207.5 | 193.5 | 186.7 | 184.3 | 182.1 |
| 17.5° | 1435.7 | 1099.3 | 679.9 | 364.1 | 230.5 | 202.7 | 184.3 | 172.9 | 163.7 | 161.3 | 161.3 |
| 20° | 1537.1 | 1138.4 | 613.1 | 283.5 | 207.5 | 182.1 | 163.7 | 149.8 | 140.6 | 138.3 | 138.3 |
| 22.5° | 1643.2 | 1170.7 | 530.1 | 230.5 | 188.9 | 161.3 | 142.9 | 129.1 | 119.8 | 117.5 | 115.2 |
| 25° | 1756.1 | 1193.8 | 435.6 | 205.1 | 170.5 | 142.9 | 122.1 | 110.6 | 103.7 | 101.4 | 99.1 |
| 27.5° | 1878.2 | 1203.0 | 345.7 | 186.7 | 149.8 | 124.5 | 106.0 | 94.5 | 89.9 | 87.6 | 87.6 |
| 30° | 1988.8 | 1193.8 | 267.3 | 165.9 | 131.3 | 108.3 | 92.2 | 83.0 | 78.4 | 76.0 | 76.0 |
| 32.5° | 2104.0 | 1170.7 | 214.3 | 147.5 | 115.2 | 92.2 | 78.4 | 71.4 | 69.2 | 66.8 | 66.8 |
| 35° | 2226.1 | 1140.8 | 184.3 | 131.3 | 99.1 | 80.6 | 69.2 | 64.5 | 62.2 | 59.9 | 59.9 |
| 37.5° | 2369.1 | 1103.9 | 168.3 | 117.5 | 87.6 | 71.4 | 59.9 | 57.6 | 55.3 | 55.3 | 55.3 |
| 40° | 2530.4 | 1057.8 | 156.7 | 106.0 | 78.4 | 62.2 | 53.0 | 50.7 | 48.4 | 48.4 | 48.4 |
| 42.5° | 2700.9 | 1004.7 | 145.2 | 94.5 | 69.2 | 53.0 | 46.1 | 46.1 | 43.8 | 43.8 | 41.5 |
| 45° | 2892.2 | 951.8 | 133.7 | 83.0 | 59.9 | 46.1 | 39.2 | 36.8 | 36.8 | 34.6 | 34.6 |
| 47.5° | 3118.1 | 903.4 | 122.1 | 73.8 | 53.0 | 39.2 | 34.6 | 32.2 | 30.0 | 27.6 | 27.6 |
| 50° | 3436.1 | 898.8 | 108.3 | 64.5 | 48.4 | 32.2 | 27.6 | 25.4 | 23.0 | 20.8 | 20.8 |
| 52.5° | 3751.8 | 857.3 | 92.2 | 53.0 | 39.2 | 27.6 | 20.8 | 18.4 | 16.2 | 16.2 | 13.8 |
| 55° | 3823.3 | 788.2 | 80.6 | 46.1 | 30.0 | 20.8 | 16.2 | 11.6 | 11.6 | 9.2 | 9.2 |
| 57.5° | 3979.9 | 755.9 | 69.2 | 36.8 | 23.0 | 16.2 | 9.2 | 7.0 | 7.0 | 7.0 | 7.0 |
| 60° | 4288.7 | 746.7 | 59.9 | 32.2 | 16.2 | 11.6 | 7.0 | 4.6 | 4.6 | 2.4 | 2.4 |
| 62.5° | 4715.1 | 737.4 | 50.7 | 27.6 | 11.6 | 7.0 | 4.6 | 2.4 | 0.0 | 0.0 | 0.0 |
| 65° | 4950.2 | 675.2 | 41.5 | 20.8 | 9.2 | 7.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 4888.0 | 557.7 | 36.8 | 13.8 | 7.0 | 4.6 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69° | 4627.5 | 470.1 | 30.0 | 11.6 | 7.0 | 4.6 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 4314.1 | 405.6 | 27.6 | 9.2 | 4.6 | 2.4 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 3062.7 | 212.1 | 18.4 | 7.0 | 4.6 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1431.1 | 94.5 | 11.6 | 4.6 | 2.4 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 315.7 | 43.8 | 7.0 | 4.6 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 59.9 | 16.2 | 4.6 | 2.4 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 20.8 | 7.0 | 2.4 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 7.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.4 | 0.0 | 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)