

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: P214647

Luminaire Tested: **ARCH-AF24-60-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214647
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-AF24-60-D-U-T2R-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 800mA LIGHT ENGINE 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: 5215 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 64
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

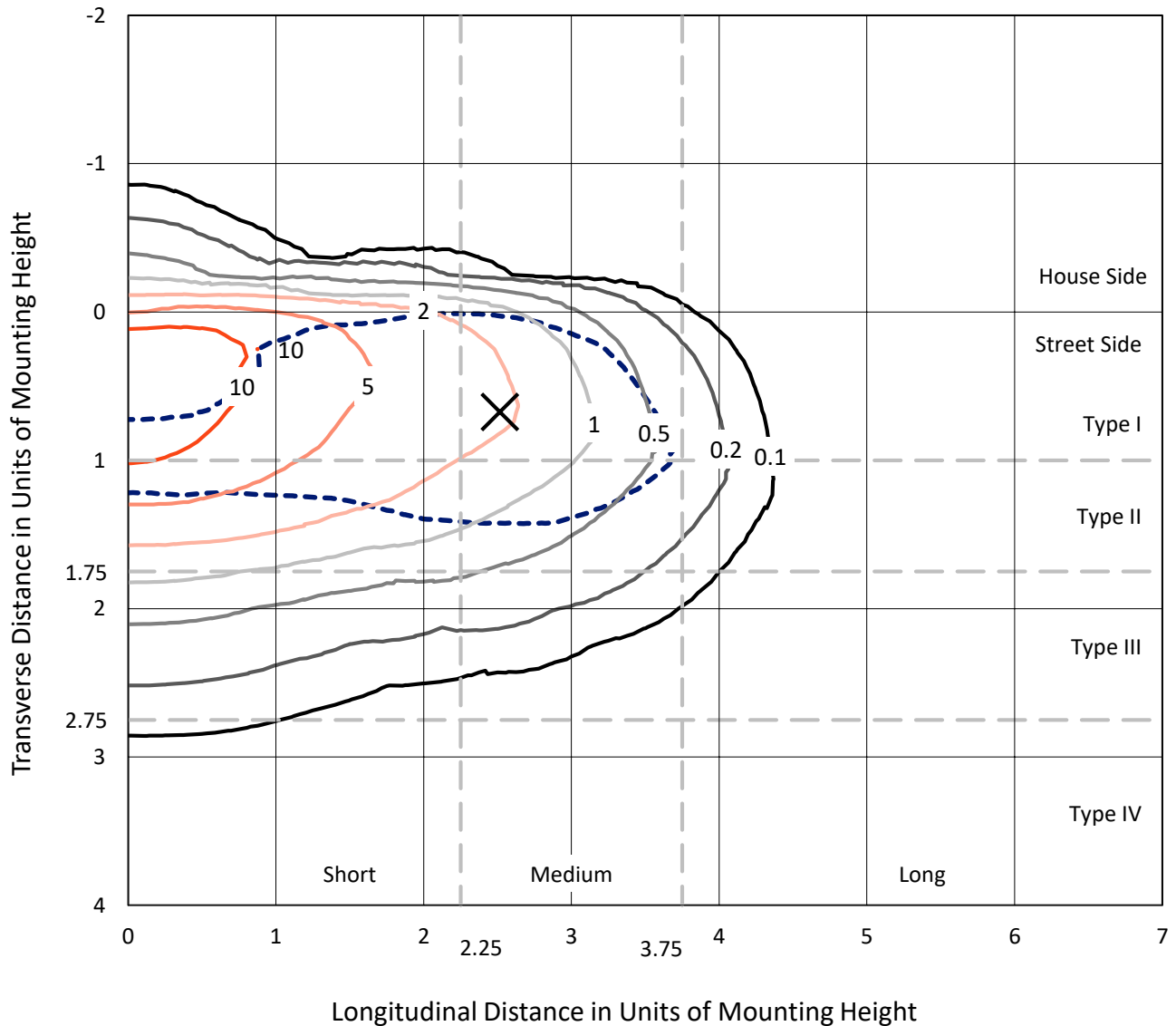


REPORT NUMBER: P214647

CATALOG NUMBER: ARCH-AF24-60-D-U-T2R-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

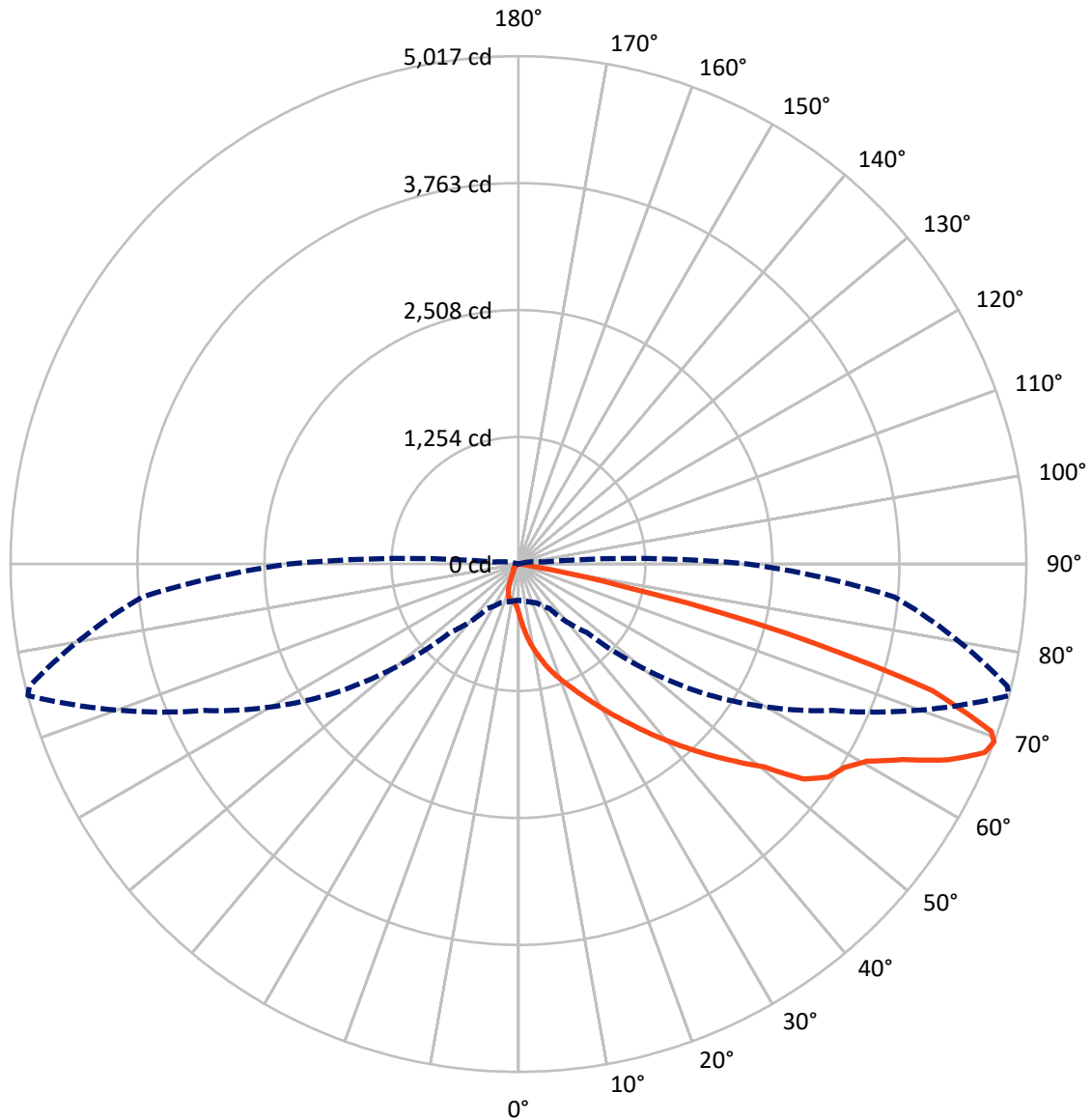


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P214647

CATALOG NUMBER: ARCH-AF24-60-D-U-T2R-7030-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214647

CATALOG NUMBER: ARCH-AF24-60-D-U-T2R-7030-HSS

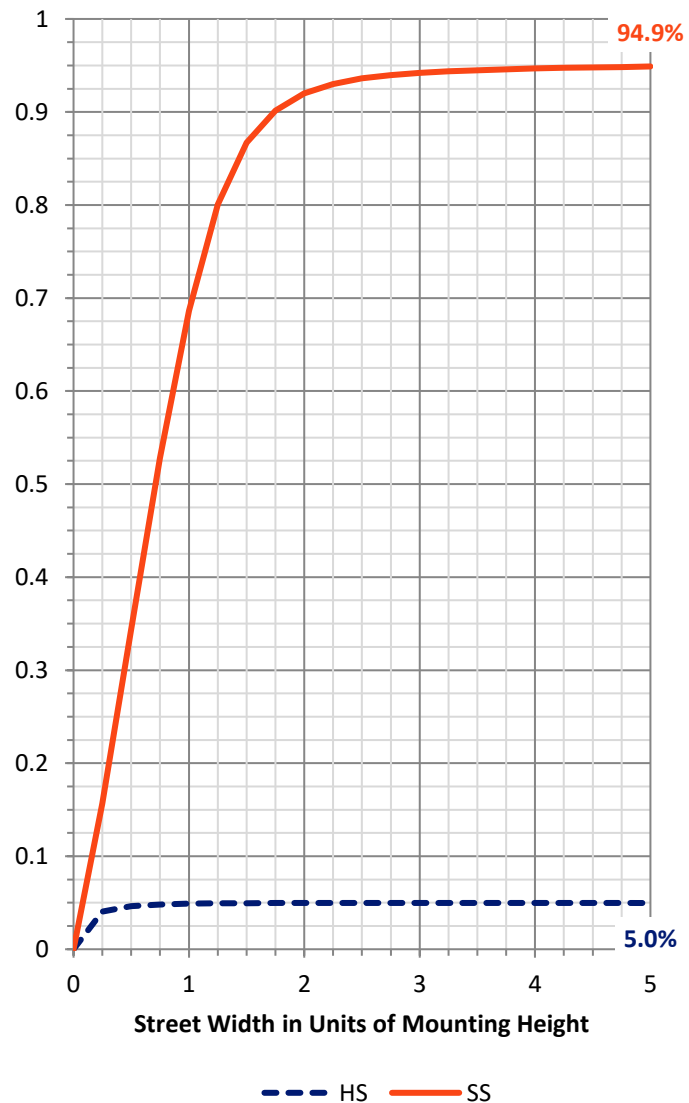
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 260.2 | 0.0 | 260.2 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 4954.8 | 0.0 | 4954.8 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 5215.0 | 0.0 | 5215.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.6 | 1.1 |
| 10°-20° | 202.3 | 3.9 |
| 20°-30° | 386.2 | 7.4 |
| 30°-40° | 692.7 | 13.3 |
| 40°-50° | 1061.3 | 20.4 |
| 50°-60° | 1233.5 | 23.7 |
| 60°-70° | 1092.3 | 20.9 |
| 70°-80° | 471.2 | 9.0 |
| 80°-90° | 18.9 | 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° | 5215.0 | 100.0 |
| 0°-180° | 5215.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P214647

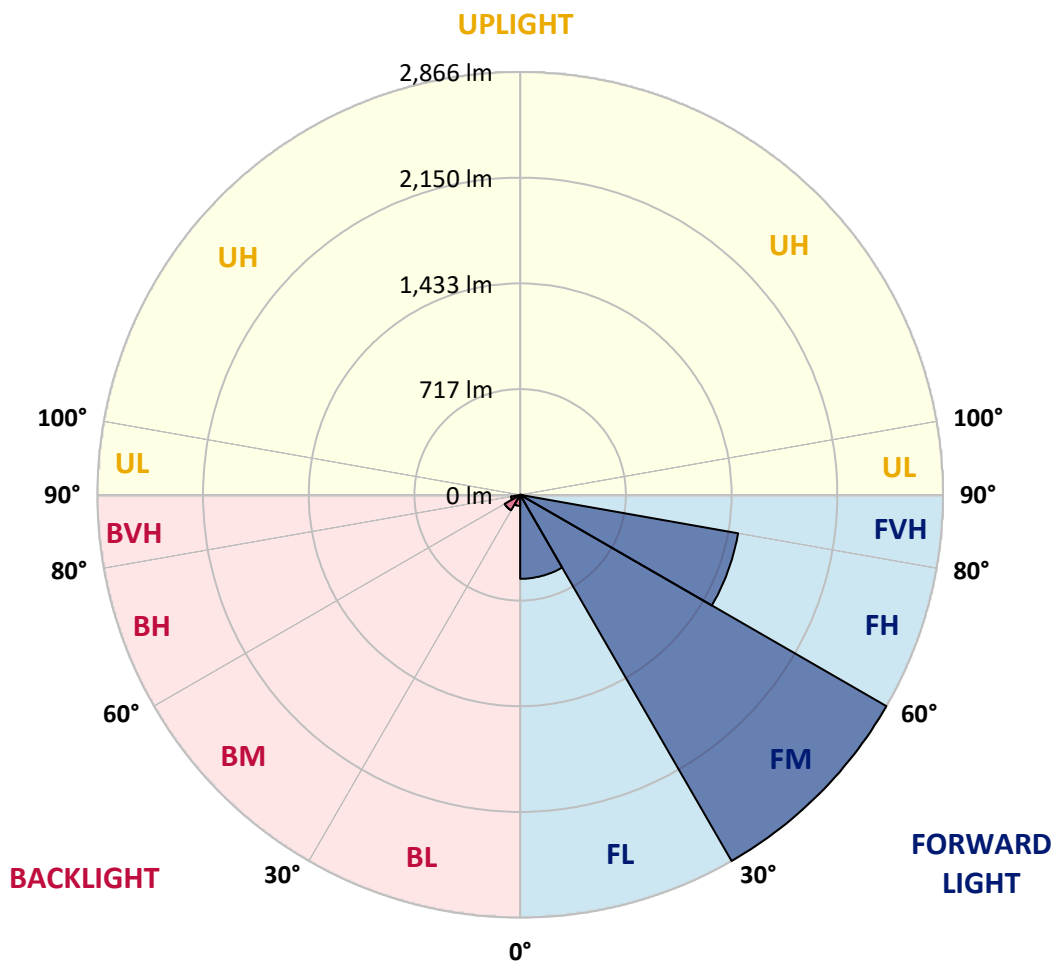
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 569.5 | 10.9 | | | |
| FM | (30°-60°) | 2866.3 | 55.0 | | | |
| FH | (60°-80°) | 1500.4 | 28.8 | | | G1/1800 |
| FVH | (80°-90°) | 18.6 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 75.6 | 1.4 | B0/110 | | |
| BM | (30°-60°) | 121.3 | 2.3 | B0/220 | | |
| BH | (60°-80°) | 63.0 | 1.2 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.3 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type II Medium





REPORT NUMBER: P214647

CATALOG NUMBER: ARCH-AF24-60-D-U-T2R-7030-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 |
| 2.5° | 799.4 | 791.5 | 783.6 | 774.6 | 754.3 | 719.4 | 675.5 | 628.2 | 569.7 | 559.6 | 512.3 |
| 5° | 970.5 | 967.1 | 959.2 | 946.9 | 924.3 | 886.1 | 836.5 | 766.7 | 668.8 | 651.9 | 551.7 |
| 7.5° | 1091.0 | 1088.7 | 1082.0 | 1067.3 | 1047.1 | 1008.8 | 957.0 | 881.6 | 767.8 | 748.7 | 601.2 |
| 10° | 1199.1 | 1197.9 | 1192.3 | 1178.8 | 1158.5 | 1116.9 | 1061.7 | 982.9 | 862.4 | 841.0 | 658.6 |
| 12.5° | 1297.0 | 1298.1 | 1295.9 | 1289.1 | 1274.5 | 1235.1 | 1172.0 | 1086.5 | 953.6 | 930.0 | 727.3 |
| 15° | 1354.4 | 1357.8 | 1366.8 | 1380.3 | 1384.8 | 1353.3 | 1288.0 | 1193.4 | 1047.1 | 1026.8 | 806.1 |
| 17.5° | 1335.3 | 1338.7 | 1366.8 | 1413.0 | 1456.9 | 1461.4 | 1402.8 | 1294.8 | 1139.4 | 1119.1 | 883.8 |
| 20° | 1289.1 | 1293.6 | 1322.9 | 1386.0 | 1471.5 | 1531.2 | 1507.6 | 1405.1 | 1227.2 | 1202.4 | 958.1 |
| 22.5° | 1340.9 | 1340.9 | 1349.9 | 1388.2 | 1465.9 | 1559.3 | 1590.9 | 1515.4 | 1317.3 | 1286.9 | 1032.4 |
| 25° | 1518.8 | 1515.4 | 1496.3 | 1480.5 | 1505.3 | 1588.6 | 1653.9 | 1628.0 | 1423.1 | 1388.2 | 1111.2 |
| 27.5° | 1744.0 | 1759.7 | 1723.7 | 1666.3 | 1610.0 | 1646.0 | 1710.2 | 1739.5 | 1540.2 | 1504.2 | 1192.3 |
| 30° | 1996.2 | 2002.9 | 1960.2 | 1883.6 | 1784.5 | 1749.6 | 1776.6 | 1835.2 | 1667.4 | 1628.0 | 1276.7 |
| 32.5° | 2223.6 | 2218.0 | 2182.0 | 2102.0 | 1979.3 | 1903.9 | 1862.2 | 1911.7 | 1805.9 | 1760.9 | 1363.4 |
| 35° | 2425.1 | 2429.6 | 2385.7 | 2293.4 | 2172.9 | 2093.0 | 1993.9 | 1998.4 | 1961.3 | 1909.5 | 1463.6 |
| 37.5° | 2606.4 | 2598.5 | 2556.9 | 2464.5 | 2355.3 | 2268.6 | 2163.9 | 2088.5 | 2131.3 | 2077.2 | 1576.2 |
| 40° | 2753.9 | 2746.0 | 2702.1 | 2612.0 | 2509.6 | 2438.7 | 2356.5 | 2209.0 | 2310.3 | 2248.4 | 1696.7 |
| 42.5° | 2871.0 | 2862.0 | 2824.8 | 2738.1 | 2639.1 | 2576.0 | 2536.6 | 2357.6 | 2501.7 | 2439.8 | 1831.8 |
| 45° | 2928.4 | 2920.5 | 2898.0 | 2832.7 | 2746.0 | 2690.9 | 2710.0 | 2528.7 | 2706.6 | 2654.8 | 1980.4 |
| 47.5° | 2860.9 | 2857.5 | 2883.4 | 2872.1 | 2822.6 | 2793.3 | 2859.7 | 2715.6 | 2921.7 | 2871.0 | 2151.6 |
| 50° | 2655.9 | 2661.6 | 2737.0 | 2830.5 | 2854.1 | 2889.0 | 2982.5 | 2912.6 | 3152.5 | 3098.4 | 2348.6 |
| 52.5° | 2150.4 | 2188.7 | 2416.1 | 2641.3 | 2815.8 | 2947.6 | 3126.6 | 3194.1 | 3528.5 | 3475.6 | 2655.9 |
| 55° | 1605.5 | 1621.3 | 1869.0 | 2254.0 | 2661.6 | 2943.0 | 3233.5 | 3359.6 | 3714.3 | 3660.2 | 2737.0 |
| 57.5° | 1273.4 | 1279.0 | 1401.7 | 1794.7 | 2344.1 | 2841.7 | 3289.8 | 3419.3 | 3795.3 | 3750.3 | 2857.5 |
| 60° | 999.8 | 1006.5 | 1095.5 | 1365.7 | 1897.1 | 2568.1 | 3208.8 | 3471.1 | 3954.1 | 3918.1 | 3068.0 |
| 62.5° | 778.0 | 784.7 | 838.8 | 997.5 | 1423.1 | 2147.1 | 3045.5 | 3554.4 | 4255.8 | 4238.9 | 3412.5 |
| 65° | 602.3 | 604.6 | 641.8 | 716.1 | 1005.4 | 1691.1 | 2846.2 | 3632.1 | 4663.4 | 4648.8 | 3691.8 |
| 67.5° | 444.7 | 448.1 | 474.0 | 520.2 | 678.9 | 1214.8 | 2519.7 | 3572.4 | 4970.8 | 4928.0 | 3793.1 |
| 69° | 359.2 | 362.5 | 385.1 | 422.2 | 535.9 | 957.0 | 2221.4 | 3424.9 | 5016.9 | 4976.4 | 3728.9 |
| 70° | 307.4 | 309.6 | 332.1 | 363.7 | 457.1 | 812.9 | 1984.9 | 3297.7 | 4956.1 | 4916.7 | 3582.5 |
| 72.5° | 197.0 | 208.3 | 230.8 | 251.1 | 302.9 | 538.2 | 1339.8 | 2734.8 | 4276.1 | 4208.5 | 2805.7 |
| 75° | 109.2 | 112.6 | 153.1 | 177.9 | 201.5 | 350.1 | 745.3 | 1705.7 | 2720.1 | 2672.8 | 1500.8 |
| 77.5° | 90.1 | 92.3 | 108.1 | 135.1 | 135.1 | 195.9 | 281.5 | 672.1 | 1034.7 | 933.4 | 406.4 |
| 80° | 63.0 | 65.3 | 82.2 | 88.9 | 96.8 | 110.3 | 91.2 | 147.5 | 159.9 | 141.9 | 60.8 |
| 82.5° | 43.9 | 46.2 | 56.3 | 73.2 | 77.7 | 51.8 | 33.8 | 43.9 | 46.2 | 46.2 | 23.6 |
| 85° | 7.9 | 11.3 | 41.7 | 60.8 | 46.2 | 15.8 | 19.1 | 15.8 | 14.6 | 15.8 | 5.6 |
| 87.5° | 0.0 | 0.0 | 25.9 | 29.3 | 24.8 | 6.8 | 7.9 | 5.6 | 3.4 | 4.5 | 2.3 |
| 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: P214647

CATALOG NUMBER: ARCH-AF24-60-D-U-T2R-7030-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 | 485.3 |
| 2.5° | 488.6 | 465.0 | 424.5 | 395.2 | 370.4 | 351.3 | 343.4 | 331.0 | 322.0 | 326.5 | 320.9 |
| 5° | 502.1 | 460.5 | 395.2 | 353.5 | 324.3 | 299.5 | 279.2 | 263.5 | 251.1 | 248.8 | 246.6 |
| 7.5° | 523.5 | 463.9 | 378.3 | 326.5 | 282.6 | 244.3 | 212.8 | 189.1 | 171.1 | 171.1 | 164.4 |
| 10° | 552.8 | 472.9 | 368.2 | 299.5 | 234.2 | 182.4 | 150.9 | 128.4 | 119.3 | 118.2 | 116.0 |
| 12.5° | 593.3 | 489.8 | 360.3 | 264.6 | 182.4 | 132.9 | 113.7 | 105.8 | 102.5 | 101.3 | 100.2 |
| 15° | 648.5 | 514.5 | 351.3 | 221.8 | 138.5 | 109.2 | 101.3 | 94.6 | 91.2 | 90.1 | 88.9 |
| 17.5° | 701.4 | 537.0 | 332.1 | 177.9 | 112.6 | 99.1 | 90.1 | 84.4 | 79.9 | 78.8 | 78.8 |
| 20° | 751.0 | 556.2 | 299.5 | 138.5 | 101.3 | 88.9 | 79.9 | 73.2 | 68.7 | 67.6 | 67.6 |
| 22.5° | 802.8 | 571.9 | 259.0 | 112.6 | 92.3 | 78.8 | 69.8 | 63.0 | 58.5 | 57.4 | 56.3 |
| 25° | 857.9 | 583.2 | 212.8 | 100.2 | 83.3 | 69.8 | 59.7 | 54.0 | 50.7 | 49.5 | 48.4 |
| 27.5° | 917.6 | 587.7 | 168.9 | 91.2 | 73.2 | 60.8 | 51.8 | 46.2 | 43.9 | 42.8 | 42.8 |
| 30° | 971.6 | 583.2 | 130.6 | 81.1 | 64.2 | 52.9 | 45.0 | 40.5 | 38.3 | 37.2 | 37.2 |
| 32.5° | 1027.9 | 571.9 | 104.7 | 72.1 | 56.3 | 45.0 | 38.3 | 34.9 | 33.8 | 32.7 | 32.7 |
| 35° | 1087.6 | 557.3 | 90.1 | 64.2 | 48.4 | 39.4 | 33.8 | 31.5 | 30.4 | 29.3 | 29.3 |
| 37.5° | 1157.4 | 539.3 | 82.2 | 57.4 | 42.8 | 34.9 | 29.3 | 28.1 | 27.0 | 27.0 | 27.0 |
| 40° | 1236.2 | 516.8 | 76.6 | 51.8 | 38.3 | 30.4 | 25.9 | 24.8 | 23.6 | 23.6 | 23.6 |
| 42.5° | 1319.5 | 490.9 | 70.9 | 46.2 | 33.8 | 25.9 | 22.5 | 22.5 | 21.4 | 21.4 | 20.3 |
| 45° | 1413.0 | 465.0 | 65.3 | 40.5 | 29.3 | 22.5 | 19.1 | 18.0 | 18.0 | 16.9 | 16.9 |
| 47.5° | 1523.3 | 441.3 | 59.7 | 36.0 | 25.9 | 19.1 | 16.9 | 15.8 | 14.6 | 13.5 | 13.5 |
| 50° | 1678.7 | 439.1 | 52.9 | 31.5 | 23.6 | 15.8 | 13.5 | 12.4 | 11.3 | 10.1 | 10.1 |
| 52.5° | 1832.9 | 418.8 | 45.0 | 25.9 | 19.1 | 13.5 | 10.1 | 9.0 | 7.9 | 7.9 | 6.8 |
| 55° | 1867.8 | 385.1 | 39.4 | 22.5 | 14.6 | 10.1 | 7.9 | 5.6 | 5.6 | 4.5 | 4.5 |
| 57.5° | 1944.4 | 369.3 | 33.8 | 18.0 | 11.3 | 7.9 | 4.5 | 3.4 | 3.4 | 3.4 | 3.4 |
| 60° | 2095.3 | 364.8 | 29.3 | 15.8 | 7.9 | 5.6 | 3.4 | 2.3 | 2.3 | 1.1 | 1.1 |
| 62.5° | 2303.5 | 360.3 | 24.8 | 13.5 | 5.6 | 3.4 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 |
| 65° | 2418.4 | 329.9 | 20.3 | 10.1 | 4.5 | 3.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 2388.0 | 272.5 | 18.0 | 6.8 | 3.4 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69° | 2260.8 | 229.7 | 14.6 | 5.6 | 3.4 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 2107.6 | 198.2 | 13.5 | 4.5 | 2.3 | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1496.3 | 103.6 | 9.0 | 3.4 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 699.2 | 46.2 | 5.6 | 2.3 | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 154.2 | 21.4 | 3.4 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 29.3 | 7.9 | 2.3 | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 10.1 | 3.4 | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 3.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.1 | 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)