

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: P841196

Luminaire Tested: **ARCH4-140-750-U-T4W-HSS**

Issue Date: 5/27/2024

### Test Information

Test Method: LM-79-08  
Report Number: P841196  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2401-285-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-140-750-U-T4W-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5000K, 1155mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 16949 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 141.3  
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: 24 FT



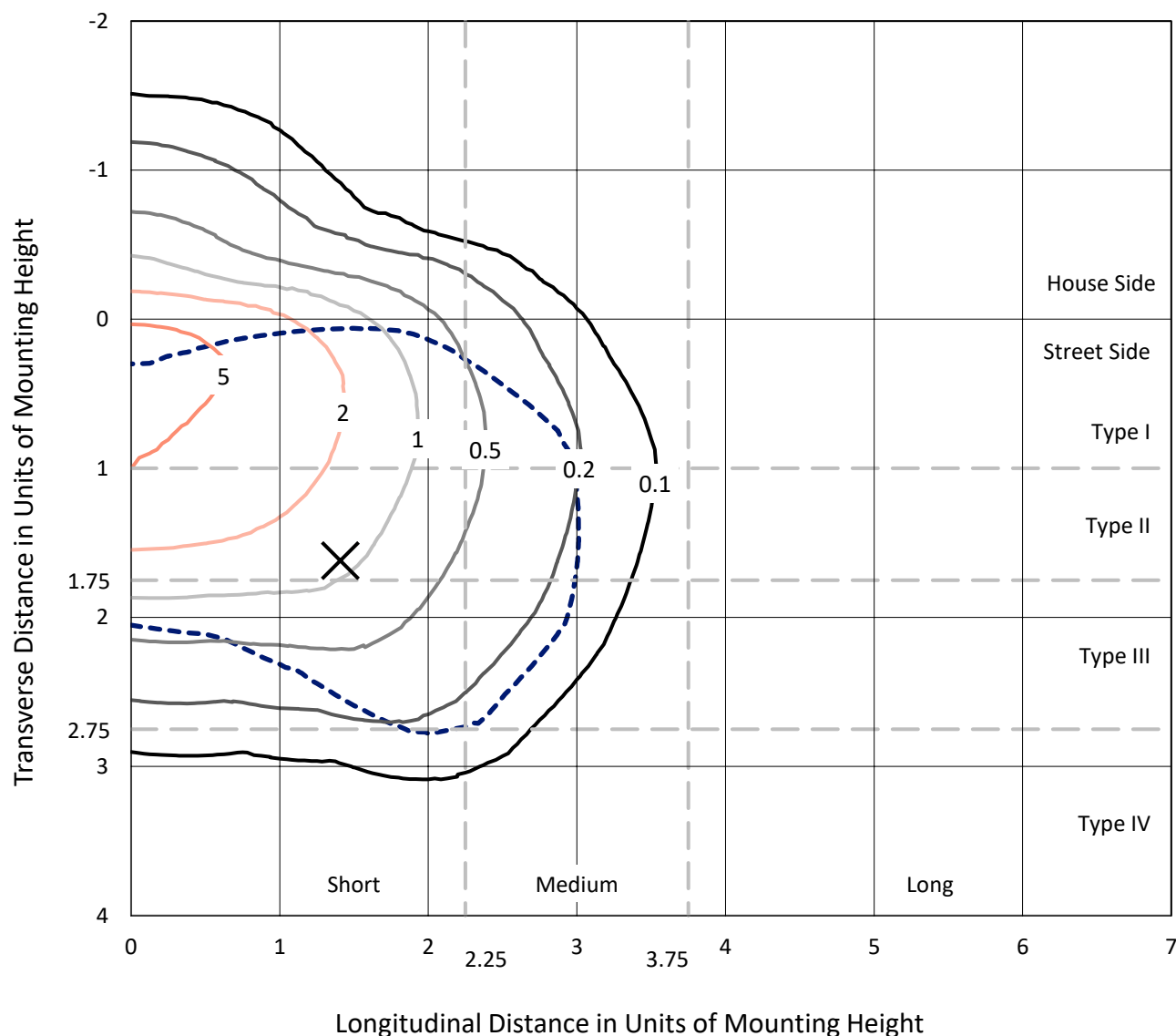
REPORT NUMBER: P841196

CATALOG NUMBER: ARCH4-140-750-U-T4W-HSS

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

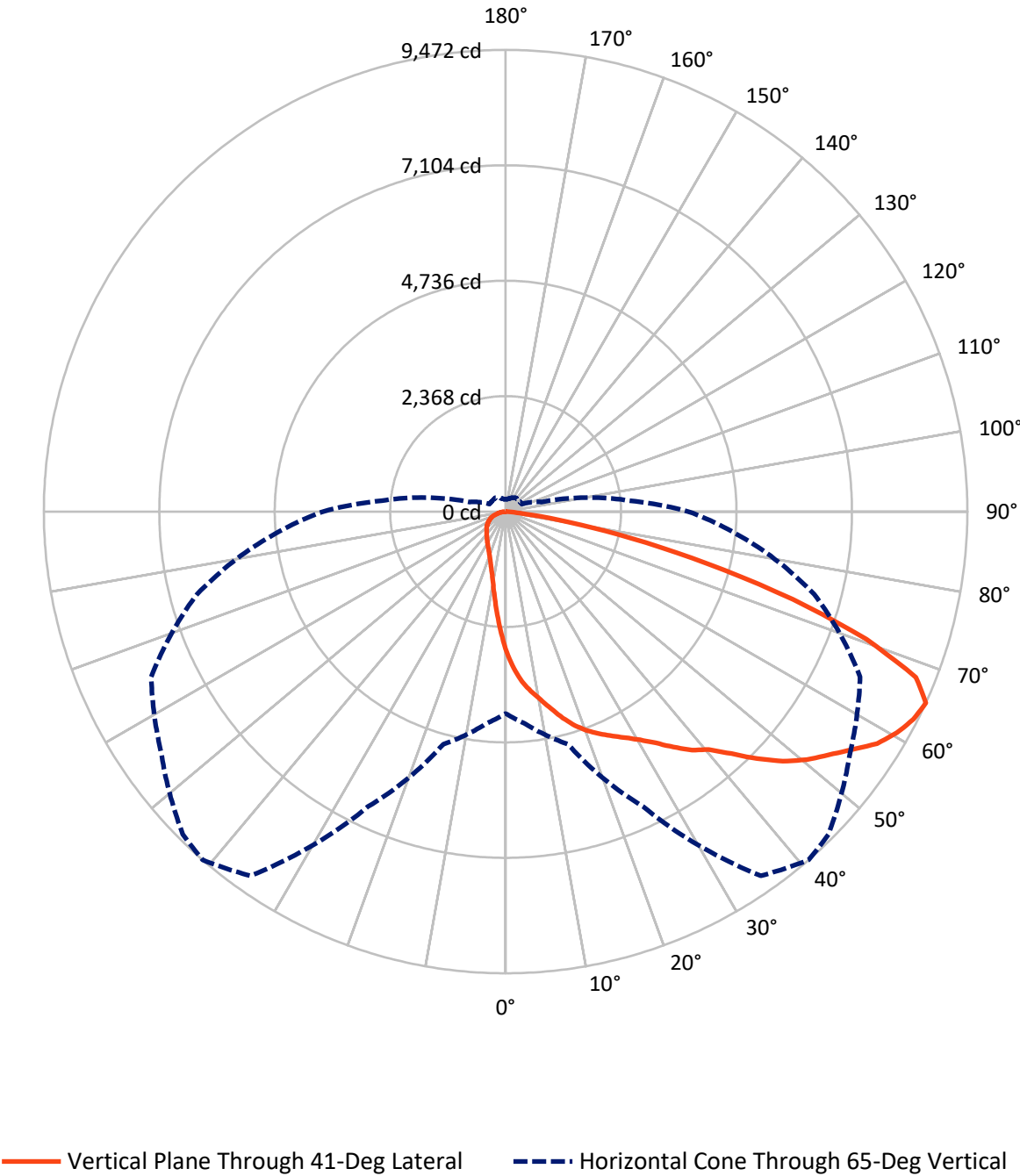


Based on 25 foot mounting height. Maximum calculated value = 6.7 fc

Type III - Short - N/A

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CATALOG NUMBER: ARCH4-140-750-U-T4W-HSS

Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2176.0   | 0.0    | 2176.0  |
|                    | % Fixture | 12.8     | 0.0    | 12.8    |
| <b>Street Side</b> | Lumens    | 14773.0  | 0.0    | 14773.0 |
|                    | % Fixture | 87.2     | 0.0    | 87.2    |
| <b>Total</b>       | Lumens    | 16949.0  | 0.0    | 16949.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 269.1   | 1.6       |
| 10°-20°   | 806.9   | 4.8       |
| 20°-30°   | 1388.1  | 8.2       |
| 30°-40°   | 2105.3  | 12.4      |
| 40°-50°   | 3084.3  | 18.2      |
| 50°-60°   | 3894.8  | 23.0      |
| 60°-70°   | 3652.1  | 21.5      |
| 70°-80°   | 1627.7  | 9.6       |
| 80°-90°   | 120.6   | 0.7       |
| 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°    | 16949.0 | 100.0     |
| 0°-180°   | 16949.0 | 100.0     |

**Coefficient of Utilization**



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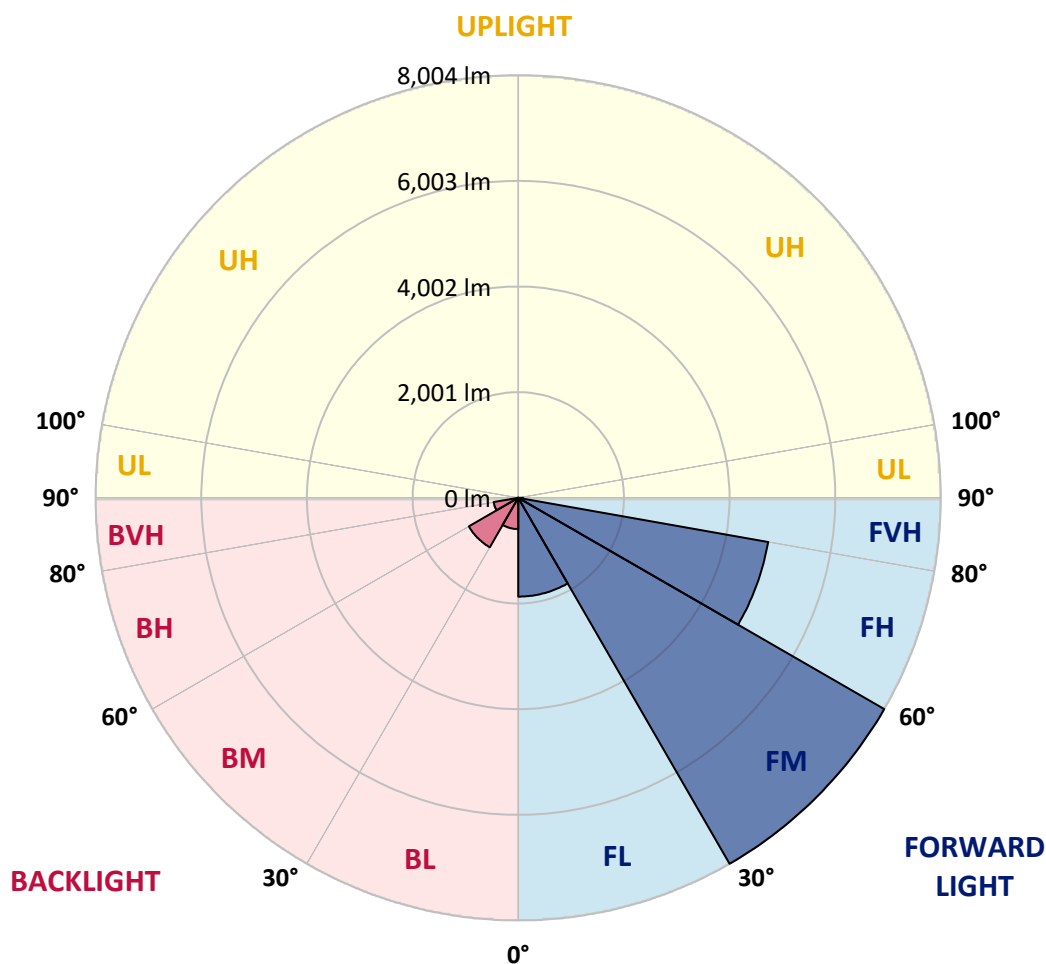
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1871.8 | 11.0      |                         |      |         |
| FM   | (30°-60°)   | 8004.0 | 47.2      |                         |      |         |
| FH   | (60°-80°)   | 4807.2 | 28.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 90.1   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 592.3  | 3.5       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1080.5 | 6.4       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 472.7  | 2.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 30.5   | 0.2       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type III Short



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CATALOG NUMBER: ARCH4-140-750-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 41°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 |
| 2.5°  | 3331.2 | 3320.5 | 3313.4 | 3274.0 | 3274.0 | 3220.4 | 3224.0 | 3174.0 | 3113.2 | 3016.7 | 2913.0 |
| 5°    | 3645.8 | 3631.5 | 3613.6 | 3574.3 | 3560.0 | 3506.4 | 3499.2 | 3427.7 | 3324.1 | 3156.1 | 2970.2 |
| 7.5°  | 3921.0 | 3906.7 | 3881.7 | 3824.5 | 3785.2 | 3720.8 | 3703.0 | 3610.0 | 3495.6 | 3288.3 | 3027.4 |
| 10°   | 4171.2 | 4160.5 | 4128.3 | 4056.8 | 4003.2 | 3924.6 | 3892.4 | 3767.3 | 3624.3 | 3395.6 | 3073.9 |
| 12.5° | 4425.0 | 4410.7 | 4367.8 | 4307.0 | 4242.7 | 4149.7 | 4110.4 | 3949.6 | 3767.3 | 3513.5 | 3141.8 |
| 15°   | 4660.9 | 4639.4 | 4607.3 | 4542.9 | 4485.7 | 4396.4 | 4353.5 | 4164.0 | 3942.4 | 3645.8 | 3231.2 |
| 17.5° | 4814.6 | 4796.7 | 4768.1 | 4732.4 | 4685.9 | 4618.0 | 4575.1 | 4389.2 | 4117.6 | 3774.4 | 3324.1 |
| 20°   | 4907.5 | 4900.3 | 4889.6 | 4868.2 | 4846.7 | 4800.3 | 4768.1 | 4593.0 | 4307.0 | 3899.5 | 3413.4 |
| 22.5° | 4979.0 | 4971.8 | 4968.3 | 4968.3 | 4971.8 | 4954.0 | 4932.5 | 4782.4 | 4489.3 | 4031.8 | 3495.6 |
| 25°   | 5089.8 | 5086.2 | 5079.1 | 5071.9 | 5096.9 | 5100.5 | 5093.4 | 4989.7 | 4718.1 | 4206.9 | 3599.3 |
| 27.5° | 5243.5 | 5232.8 | 5218.5 | 5211.3 | 5236.3 | 5254.2 | 5268.5 | 5197.0 | 4961.1 | 4385.6 | 3717.3 |
| 30°   | 5479.4 | 5447.2 | 5411.5 | 5386.4 | 5404.3 | 5432.9 | 5465.1 | 5422.2 | 5211.3 | 4607.3 | 3838.8 |
| 32.5° | 5758.2 | 5718.9 | 5636.6 | 5590.2 | 5636.6 | 5658.1 | 5683.1 | 5661.7 | 5472.2 | 4846.7 | 3960.3 |
| 35°   | 6097.7 | 6051.3 | 5965.5 | 5897.6 | 5979.8 | 5933.3 | 5922.6 | 5901.1 | 5718.9 | 5082.6 | 4096.1 |
| 37.5° | 6662.5 | 6594.6 | 6458.7 | 6308.6 | 6308.6 | 6208.5 | 6169.2 | 6104.9 | 5940.5 | 5293.5 | 4228.4 |
| 40°   | 7316.6 | 7227.2 | 7052.1 | 6830.5 | 6626.7 | 6419.4 | 6394.4 | 6347.9 | 6201.4 | 5536.6 | 4378.5 |
| 42.5° | 8035.0 | 7863.4 | 7620.4 | 7352.3 | 7023.5 | 6787.6 | 6730.4 | 6598.1 | 6455.2 | 5783.2 | 4528.6 |
| 45°   | 8832.1 | 8474.6 | 8120.8 | 7984.9 | 7441.7 | 7227.2 | 7120.0 | 6880.5 | 6719.7 | 6040.5 | 4685.9 |
| 47.5° | 8960.7 | 8681.9 | 8446.0 | 8424.6 | 7831.3 | 7652.5 | 7531.0 | 7187.9 | 7005.6 | 6315.8 | 4850.3 |
| 50°   | 8889.2 | 8721.3 | 8746.3 | 8660.5 | 8117.2 | 7999.2 | 7906.3 | 7516.7 | 7288.0 | 6580.3 | 5000.4 |
| 52.5° | 8589.0 | 8681.9 | 8824.9 | 8667.6 | 8388.8 | 8292.3 | 8245.9 | 7870.6 | 7552.5 | 6823.3 | 5136.2 |
| 55°   | 8231.6 | 8295.9 | 8603.3 | 8796.3 | 8703.4 | 8617.6 | 8574.7 | 8281.6 | 7813.4 | 7027.0 | 5261.3 |
| 57.5° | 7709.7 | 7681.1 | 8020.7 | 8774.9 | 9032.2 | 8982.2 | 8935.7 | 8685.5 | 8056.4 | 7173.6 | 5340.0 |
| 60°   | 6927.0 | 6866.2 | 7295.1 | 8346.0 | 9139.4 | 9218.1 | 9196.6 | 8953.6 | 8242.3 | 7170.0 | 5307.8 |
| 62.5° | 5572.3 | 5722.4 | 6315.8 | 7645.4 | 9185.9 | 9386.1 | 9346.8 | 8975.0 | 8303.1 | 6962.7 | 5104.1 |
| 65°   | 4142.6 | 4357.1 | 4939.7 | 6680.3 | 9121.6 | 9471.9 | 9364.6 | 8624.7 | 8020.7 | 6551.7 | 4657.3 |
| 67.5° | 2984.5 | 3174.0 | 3599.3 | 5497.2 | 8503.2 | 9078.7 | 8953.6 | 8052.9 | 7370.2 | 5969.1 | 4038.9 |
| 70°   | 2040.9 | 2176.7 | 2466.3 | 4003.2 | 7259.4 | 7849.1 | 7770.5 | 7198.6 | 6344.4 | 5275.6 | 3281.2 |
| 72.5° | 1440.4 | 1497.6 | 1683.5 | 2641.4 | 5515.1 | 6158.5 | 6065.6 | 5922.6 | 5096.9 | 4385.6 | 2552.0 |
| 75°   | 1079.4 | 1115.2 | 1215.3 | 1708.5 | 3720.8 | 4267.7 | 4181.9 | 4264.1 | 3806.6 | 3320.5 | 1858.6 |
| 77.5° | 407.5  | 443.2  | 689.8  | 1090.2 | 2201.8 | 2619.9 | 2534.2 | 2584.2 | 2116.0 | 1676.3 | 925.7  |
| 80°   | 110.8  | 118.0  | 228.8  | 518.3  | 1000.8 | 1304.6 | 1186.7 | 1018.7 | 786.3  | 772.0  | 489.7  |
| 82.5° | 46.5   | 53.6   | 103.7  | 278.8  | 357.4  | 357.4  | 300.2  | 371.7  | 300.2  | 361.0  | 235.9  |
| 85°   | 17.9   | 21.4   | 25.0   | 71.5   | 46.5   | 50.0   | 53.6   | 71.5   | 60.8   | 75.1   | 53.6   |
| 87.5° | 0.0    | 0.0    | 0.0    | 3.6    | 3.6    | 7.1    | 3.6    | 7.1    | 10.7   | 10.7   | 10.7   |
| 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: ARCH4-140-750-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 | 2888.0 |
| 2.5°  | 2870.1 | 2830.8 | 2773.6 | 2680.7 | 2584.2 | 2530.6 | 2462.7 | 2452.0 | 2380.5 | 2373.3 | 2344.7 |
| 5°    | 2888.0 | 2805.8 | 2659.3 | 2480.6 | 2305.4 | 2169.6 | 2069.5 | 2015.9 | 1912.2 | 1912.2 | 1883.6 |
| 7.5°  | 2902.3 | 2773.6 | 2537.7 | 2273.2 | 2033.8 | 1851.5 | 1715.7 | 1658.5 | 1565.5 | 1558.4 | 1536.9 |
| 10°   | 2905.9 | 2734.3 | 2405.5 | 2062.4 | 1769.3 | 1583.4 | 1451.2 | 1386.8 | 1304.6 | 1297.5 | 1283.2 |
| 12.5° | 2934.5 | 2712.9 | 2287.5 | 1880.1 | 1579.8 | 1379.7 | 1251.0 | 1197.4 | 1133.0 | 1125.9 | 1111.6 |
| 15°   | 2981.0 | 2712.9 | 2187.5 | 1726.4 | 1411.8 | 1226.0 | 1115.2 | 1065.1 | 1018.7 | 1011.5 | 1004.4 |
| 17.5° | 3027.4 | 2705.7 | 2087.4 | 1583.4 | 1272.4 | 1104.5 | 1007.9 | 968.6  | 932.9  | 929.3  | 922.2  |
| 20°   | 3070.3 | 2702.2 | 1987.3 | 1461.9 | 1165.2 | 1004.4 | 929.3  | 893.6  | 865.0  | 865.0  | 861.4  |
| 22.5° | 3113.2 | 2695.0 | 1890.8 | 1347.5 | 1072.3 | 929.3  | 865.0  | 825.7  | 804.2  | 804.2  | 800.6  |
| 25°   | 3177.5 | 2695.0 | 1801.4 | 1251.0 | 997.2  | 872.1  | 807.8  | 779.2  | 761.3  | 757.7  | 757.7  |
| 27.5° | 3252.6 | 2716.5 | 1722.8 | 1165.2 | 932.9  | 814.9  | 764.9  | 736.3  | 714.9  | 707.7  | 711.3  |
| 30°   | 3334.8 | 2734.3 | 1651.3 | 1090.2 | 872.1  | 772.0  | 718.4  | 689.8  | 668.4  | 661.2  | 664.8  |
| 32.5° | 3417.0 | 2755.8 | 1587.0 | 1022.2 | 811.4  | 732.7  | 679.1  | 646.9  | 625.5  | 621.9  | 621.9  |
| 35°   | 3506.4 | 2777.2 | 1522.6 | 965.1  | 761.3  | 693.4  | 643.4  | 607.6  | 593.3  | 586.2  | 589.8  |
| 37.5° | 3595.7 | 2813.0 | 1461.9 | 911.4  | 725.6  | 657.7  | 611.2  | 575.5  | 564.7  | 561.2  | 561.2  |
| 40°   | 3703.0 | 2866.6 | 1436.9 | 875.7  | 693.4  | 625.5  | 586.2  | 550.4  | 539.7  | 539.7  | 539.7  |
| 42.5° | 3792.3 | 2909.5 | 1415.4 | 836.4  | 668.4  | 596.9  | 561.2  | 532.6  | 525.4  | 521.8  | 525.4  |
| 45°   | 3881.7 | 2948.8 | 1386.8 | 800.6  | 636.2  | 568.3  | 539.7  | 511.1  | 504.0  | 504.0  | 504.0  |
| 47.5° | 3971.0 | 2970.2 | 1347.5 | 764.9  | 607.6  | 543.3  | 518.3  | 493.3  | 486.1  | 486.1  | 486.1  |
| 50°   | 4042.5 | 2988.1 | 1290.3 | 725.6  | 575.5  | 521.8  | 496.8  | 471.8  | 464.7  | 464.7  | 464.7  |
| 52.5° | 4114.0 | 2991.7 | 1229.6 | 679.1  | 543.3  | 496.8  | 475.4  | 450.4  | 443.2  | 439.6  | 439.6  |
| 55°   | 4178.3 | 2988.1 | 1158.1 | 625.5  | 507.5  | 468.2  | 450.4  | 428.9  | 414.6  | 400.3  | 407.5  |
| 57.5° | 4224.8 | 2984.5 | 1075.9 | 571.9  | 471.8  | 439.6  | 432.5  | 403.9  | 375.3  | 339.6  | 346.7  |
| 60°   | 4206.9 | 2945.2 | 986.5  | 504.0  | 432.5  | 411.0  | 411.0  | 371.7  | 321.7  | 303.8  | 307.4  |
| 62.5° | 4092.6 | 2834.4 | 893.6  | 432.5  | 393.2  | 382.4  | 378.9  | 336.0  | 296.7  | 278.8  | 282.4  |
| 65°   | 3749.4 | 2555.6 | 757.7  | 368.2  | 353.9  | 350.3  | 350.3  | 311.0  | 275.2  | 253.8  | 257.3  |
| 67.5° | 3227.6 | 2144.6 | 618.4  | 311.0  | 314.5  | 321.7  | 321.7  | 285.9  | 250.2  | 228.8  | 232.3  |
| 70°   | 2587.8 | 1676.3 | 493.3  | 268.1  | 271.6  | 282.4  | 289.5  | 257.3  | 225.2  | 203.7  | 203.7  |
| 72.5° | 1948.0 | 1272.4 | 396.7  | 225.2  | 243.1  | 243.1  | 253.8  | 228.8  | 196.6  | 175.1  | 178.7  |
| 75°   | 1411.8 | 911.4  | 314.5  | 189.4  | 210.9  | 207.3  | 207.3  | 193.0  | 168.0  | 153.7  | 153.7  |
| 77.5° | 668.4  | 479.0  | 250.2  | 135.8  | 164.4  | 160.8  | 164.4  | 153.7  | 143.0  | 128.7  | 132.2  |
| 80°   | 328.8  | 235.9  | 160.8  | 96.5   | 114.4  | 118.0  | 128.7  | 121.5  | 118.0  | 107.2  | 107.2  |
| 82.5° | 157.3  | 92.9   | 75.1   | 67.9   | 78.6   | 82.2   | 89.4   | 89.4   | 92.9   | 85.8   | 85.8   |
| 85°   | 42.9   | 25.0   | 32.2   | 42.9   | 50.0   | 53.6   | 60.8   | 64.3   | 64.3   | 60.8   | 64.3   |
| 87.5° | 10.7   | 10.7   | 14.3   | 21.4   | 25.0   | 28.6   | 32.2   | 32.2   | 14.3   | 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)