

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: P841773

Luminaire Tested: **ARCH4-220-750-U-T4W**

Issue Date: 5/27/2024

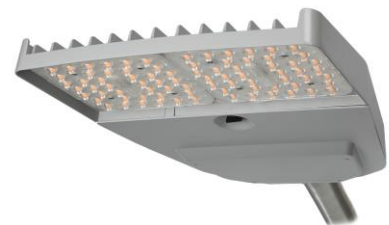
### Test Information

Test Method: LM-79-08  
Report Number: P841773  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2310-189-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-220-750-U-T4W  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5000K, 870mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 34408 lumens  
Efficiency: N/A  
Efficacy: 155.1 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

Input Watts (W): 221.8  
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

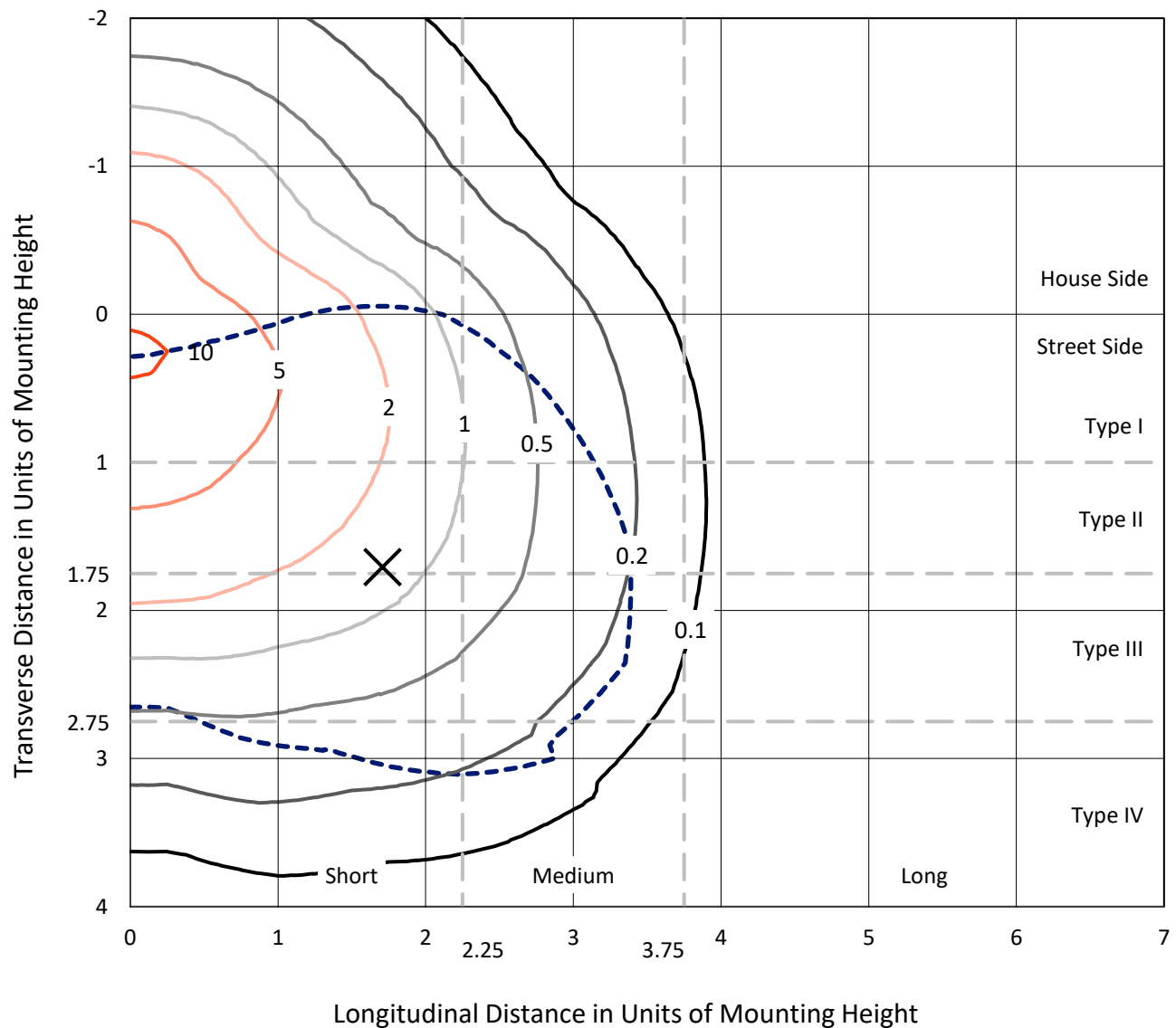


REPORT NUMBER: P841773

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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

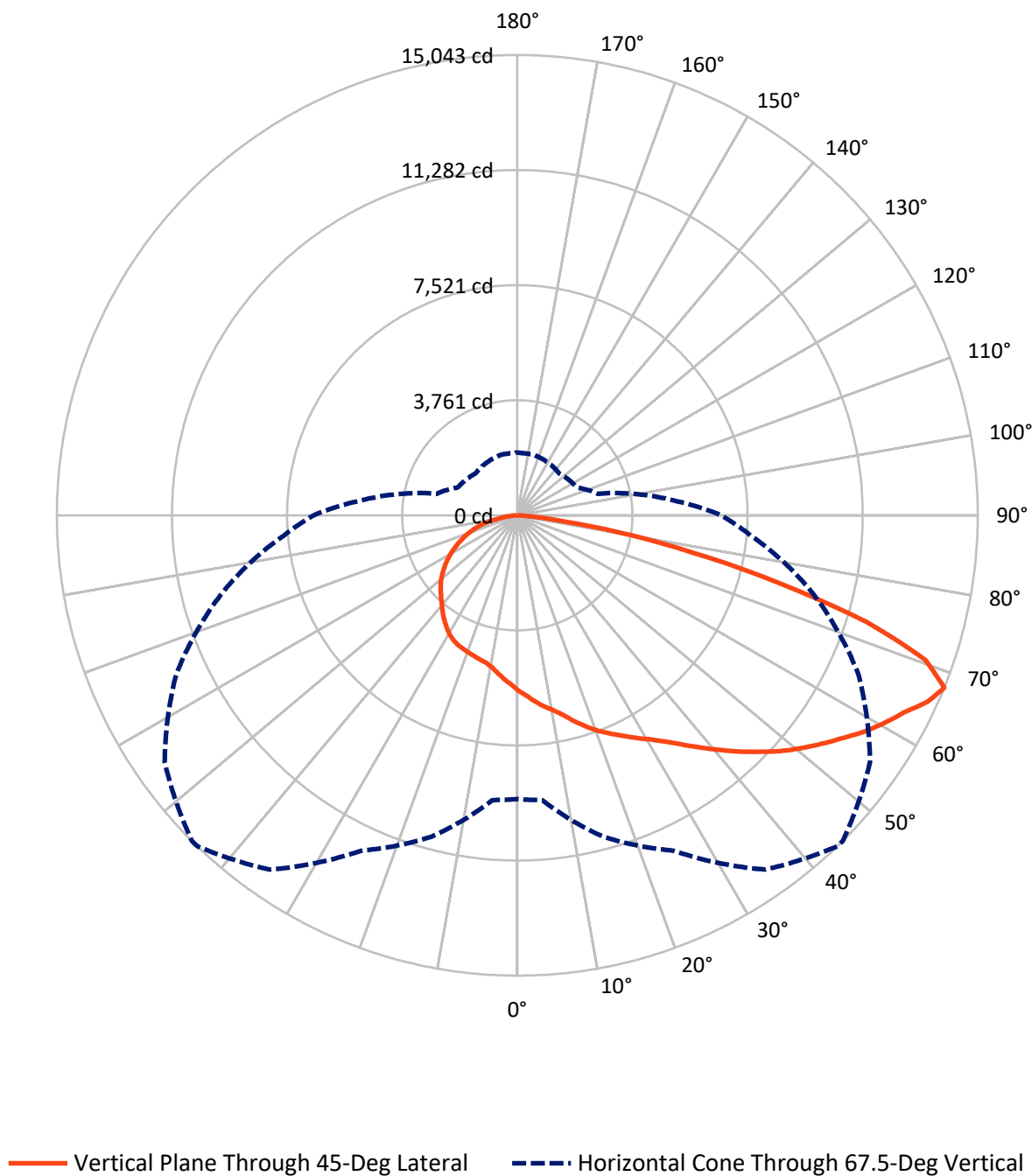


Based on 25 foot mounting height. Maximum calculated value = 10.7 fc  
Type IV - Short - N/A

REPORT NUMBER: P841773

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## Luminous Intensity Polar Plot



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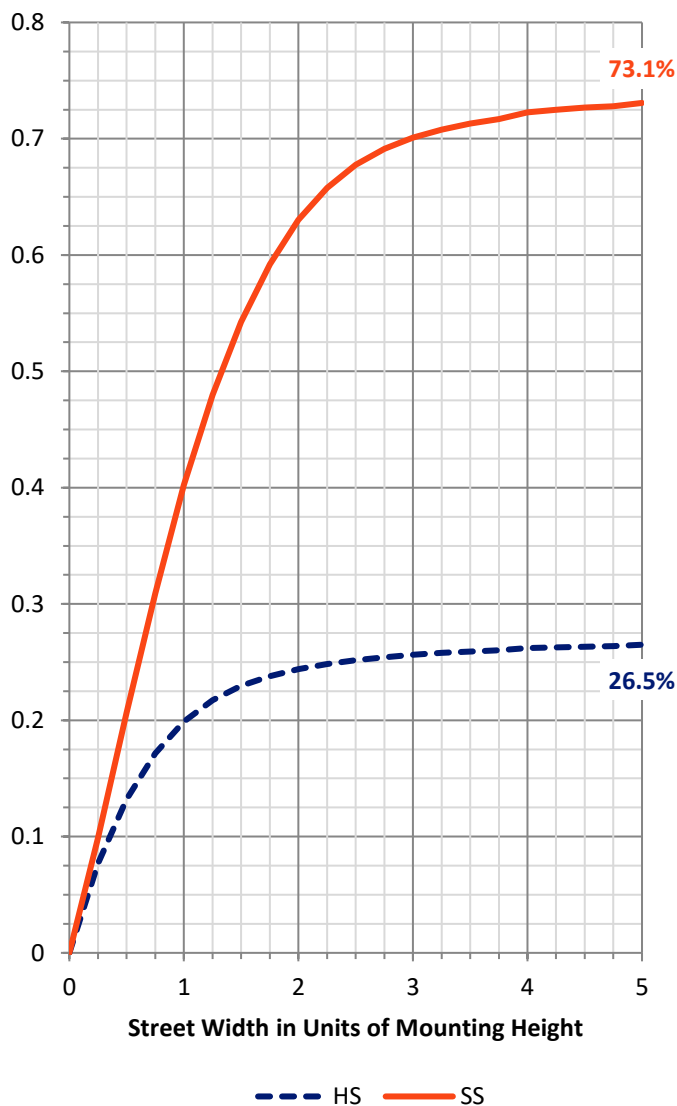
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 9192.1   | 0.0    | 9192.1  |
|                    | % Fixture | 26.7     | 0.0    | 26.7    |
| <b>Street Side</b> | Lumens    | 25215.9  | 0.0    | 25215.9 |
|                    | % Fixture | 73.3     | 0.0    | 73.3    |
| <b>Total</b>       | Lumens    | 34408.0  | 0.0    | 34408.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 549.4   | 1.6       |
| 10°-20°   | 1697.3  | 4.9       |
| 20°-30°   | 2929.7  | 8.5       |
| 30°-40°   | 4320.3  | 12.6      |
| 40°-50°   | 5853.2  | 17.0      |
| 50°-60°   | 7154.0  | 20.8      |
| 60°-70°   | 7378.3  | 21.4      |
| 70°-80°   | 4041.3  | 11.7      |
| 80°-90°   | 484.4   | 1.4       |
| 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°    | 34408.0 | 100.0     |
| 0°-180°   | 34408.0 | 100.0     |

**Coefficient of Utilization**



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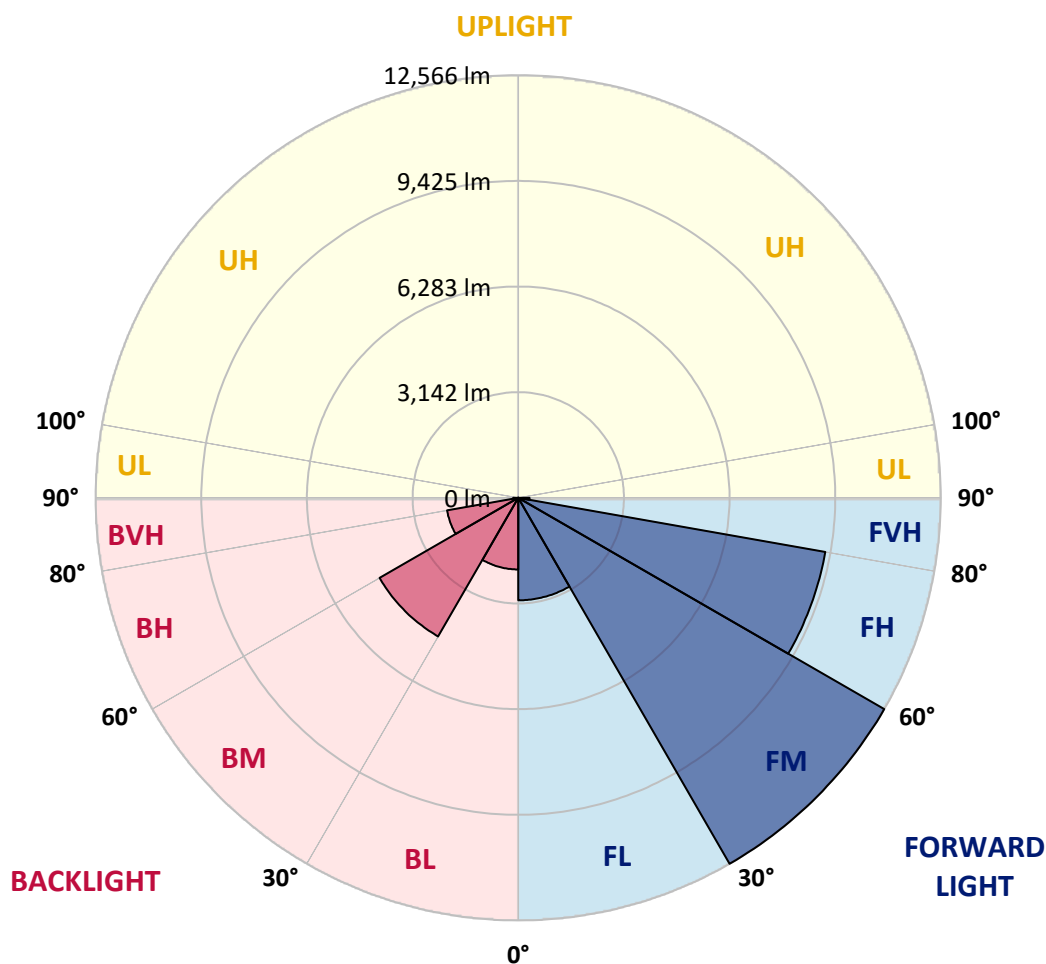
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 3046.0  | 8.9       |                         |      |          |
| FM   | (30°-60°)   | 12566.1 | 36.5      |                         |      |          |
| FH   | (60°-80°)   | 9270.0  | 26.9      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 333.7   | 1.0       |                         |      | G3/500   |
| BL   | (0°-30°)    | 2130.4  | 6.2       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 4761.4  | 13.8      | B3/5000                 |      |          |
| BH   | (60°-80°)   | 2149.6  | 6.2       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 150.7   | 0.4       |                         |      | G2/225   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type IV Short



REPORT NUMBER: P841773

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 44°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 5738.6  | 5738.6  | 5738.6  | 5738.6  | 5738.6  | 5738.6  | 5738.6  | 5738.6  | 5738.6  | 5738.6  | 5738.6 |
| 2.5°  | 5989.9  | 5984.7  | 5995.2  | 5958.5  | 5911.4  | 5906.2  | 5906.2  | 5874.7  | 5838.1  | 5764.8  | 5707.2 |
| 5°    | 6272.7  | 6262.2  | 6267.4  | 6215.1  | 6152.2  | 6120.8  | 6115.6  | 6047.5  | 5963.7  | 5848.6  | 5743.8 |
| 7.5°  | 6534.5  | 6524.0  | 6518.8  | 6461.2  | 6366.9  | 6314.6  | 6309.3  | 6209.8  | 6110.4  | 5932.3  | 5780.5 |
| 10°   | 6780.6  | 6770.1  | 6759.6  | 6681.1  | 6565.9  | 6487.3  | 6476.9  | 6351.2  | 6225.5  | 6005.6  | 5811.9 |
| 12.5° | 7094.7  | 7073.8  | 7063.3  | 6969.1  | 6801.5  | 6717.7  | 6702.0  | 6534.5  | 6377.4  | 6110.4  | 5874.7 |
| 15°   | 7424.6  | 7408.9  | 7393.2  | 7304.2  | 7115.7  | 7005.7  | 6979.5  | 6770.1  | 6555.4  | 6246.5  | 5969.0 |
| 17.5° | 7670.7  | 7655.0  | 7655.0  | 7576.4  | 7403.6  | 7278.0  | 7257.0  | 7005.7  | 6738.7  | 6372.2  | 6042.3 |
| 20°   | 7822.5  | 7806.8  | 7822.5  | 7775.4  | 7644.5  | 7539.8  | 7518.8  | 7241.3  | 6921.9  | 6487.3  | 6105.1 |
| 22.5° | 7932.5  | 7916.8  | 7942.9  | 7922.0  | 7827.7  | 7764.9  | 7749.2  | 7476.9  | 7110.4  | 6607.8  | 6167.9 |
| 25°   | 8126.2  | 8126.2  | 8126.2  | 8089.5  | 8000.5  | 7979.6  | 7979.6  | 7744.0  | 7351.3  | 6764.8  | 6262.2 |
| 27.5° | 8513.7  | 8492.7  | 8466.5  | 8361.8  | 8210.0  | 8204.7  | 8236.2  | 8016.2  | 7628.8  | 6969.1  | 6377.4 |
| 30°   | 9084.4  | 9073.9  | 8974.4  | 8754.5  | 8497.9  | 8471.8  | 8492.7  | 8309.5  | 7927.2  | 7183.7  | 6508.3 |
| 32.5° | 9822.6  | 9786.0  | 9581.8  | 9251.9  | 8885.4  | 8765.0  | 8806.9  | 8613.1  | 8241.4  | 7403.6  | 6633.9 |
| 35°   | 10346.2 | 10356.7 | 10210.1 | 9911.7  | 9477.1  | 9157.7  | 9189.1  | 8953.5  | 8581.7  | 7649.7  | 6791.0 |
| 37.5° | 10948.4 | 10985.0 | 10765.1 | 10540.0 | 10136.8 | 9592.3  | 9623.7  | 9304.3  | 8922.1  | 7958.6  | 6958.6 |
| 40°   | 11780.9 | 11707.6 | 11335.8 | 11068.8 | 10623.7 | 10047.8 | 10074.0 | 9697.0  | 9314.8  | 8251.9  | 7152.3 |
| 42.5° | 12477.3 | 12346.4 | 11896.1 | 11555.7 | 11021.7 | 10529.5 | 10555.7 | 10121.1 | 9712.7  | 8576.5  | 7367.0 |
| 45°   | 13477.3 | 13116.1 | 12466.8 | 12299.2 | 11430.1 | 11000.7 | 11026.9 | 10571.4 | 10131.6 | 8922.1  | 7597.4 |
| 47.5° | 14058.5 | 13482.6 | 13068.9 | 12979.9 | 11880.4 | 11487.7 | 11519.1 | 11047.9 | 10581.9 | 9314.8  | 7838.2 |
| 50°   | 14021.9 | 13650.1 | 13529.7 | 13309.8 | 12278.3 | 11943.2 | 11974.6 | 11540.0 | 11037.4 | 9702.2  | 8068.6 |
| 52.5° | 13781.0 | 13849.1 | 13786.3 | 13419.7 | 12676.2 | 12383.0 | 12419.7 | 12027.0 | 11503.4 | 10063.5 | 8283.3 |
| 55°   | 14152.8 | 14199.9 | 14079.5 | 13597.8 | 13116.1 | 12822.8 | 12864.7 | 12540.1 | 11964.1 | 10382.9 | 8466.5 |
| 57.5° | 14597.8 | 14430.3 | 14309.9 | 13911.9 | 13571.6 | 13299.3 | 13346.4 | 13063.7 | 12362.1 | 10639.5 | 8607.9 |
| 60°   | 14576.9 | 14226.1 | 14346.5 | 13932.9 | 13880.5 | 13739.1 | 13781.0 | 13493.0 | 12665.8 | 10827.9 | 8665.5 |
| 62.5° | 13503.5 | 13315.0 | 13922.4 | 13781.0 | 14131.8 | 14131.8 | 14184.2 | 13754.8 | 12849.0 | 10906.5 | 8634.1 |
| 65°   | 11639.5 | 11650.0 | 12718.1 | 13304.6 | 14430.3 | 14671.1 | 14713.0 | 13917.2 | 12744.3 | 10676.1 | 8340.9 |
| 67.5° | 9272.9  | 9340.9  | 10875.1 | 12095.0 | 14131.8 | 15037.6 | 15042.9 | 14063.8 | 12294.0 | 10026.8 | 7660.2 |
| 70°   | 6785.8  | 6838.2  | 8649.8  | 10131.6 | 12723.4 | 14226.1 | 14142.3 | 13650.1 | 11314.9 | 8895.9  | 6597.3 |
| 72.5° | 4586.7  | 4633.8  | 6497.8  | 7780.6  | 10440.5 | 12116.0 | 11932.7 | 12063.6 | 9644.6  | 7309.4  | 5304.0 |
| 75°   | 3084.0  | 3141.6  | 4623.3  | 5565.8  | 7681.1  | 9199.6  | 8791.2  | 9136.7  | 7461.2  | 5534.4  | 3869.4 |
| 77.5° | 1942.5  | 1979.2  | 2937.4  | 3649.5  | 5246.4  | 6262.2  | 5853.8  | 5859.0  | 4298.7  | 2979.3  | 2078.7 |
| 80°   | 1235.7  | 1246.2  | 1780.2  | 2104.9  | 3036.9  | 3764.6  | 3330.1  | 2707.0  | 1937.3  | 1581.3  | 1240.9 |
| 82.5° | 717.3   | 701.6   | 1062.9  | 1188.6  | 1445.1  | 1429.4  | 1183.3  | 1120.5  | 848.2   | 790.6   | 633.6  |
| 85°   | 288.0   | 267.0   | 466.0   | 434.6   | 439.8   | 466.0   | 345.6   | 345.6   | 277.5   | 214.7   | 157.1  |
| 87.5° | 57.6    | 57.6    | 62.8    | 57.6    | 57.6    | 62.8    | 47.1    | 47.1    | 41.9    | 41.9    | 41.9   |
| 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: P841773

CATALOG NUMBER: ARCH4-220-750-U-T4W

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 5738.6 | 5738.6 | 5738.6 | 5738.6 | 5738.6 | 5738.6 | 5738.6 | 5738.6 | 5738.6 | 5738.6 | 5738.6 |
| 2.5°  | 5696.7 | 5686.2 | 5660.1 | 5592.0 | 5555.3 | 5534.4 | 5503.0 | 5492.5 | 5487.3 | 5492.5 | 5508.2 |
| 5°    | 5712.4 | 5675.8 | 5602.5 | 5492.5 | 5419.2 | 5372.1 | 5319.7 | 5298.8 | 5283.1 | 5283.1 | 5298.8 |
| 7.5°  | 5722.9 | 5665.3 | 5539.6 | 5377.3 | 5272.6 | 5199.3 | 5136.5 | 5110.3 | 5105.1 | 5120.8 | 5126.0 |
| 10°   | 5728.1 | 5644.4 | 5466.3 | 5262.1 | 5126.0 | 5031.7 | 4968.9 | 4953.2 | 4968.9 | 5000.3 | 5005.6 |
| 12.5° | 5764.8 | 5649.6 | 5424.4 | 5183.6 | 5021.3 | 4927.0 | 4879.9 | 4879.9 | 4921.8 | 4979.4 | 4984.6 |
| 15°   | 5827.6 | 5686.2 | 5403.5 | 5120.8 | 4953.2 | 4869.4 | 4853.7 | 4879.9 | 4942.7 | 5031.7 | 5042.2 |
| 17.5° | 5874.7 | 5707.2 | 5356.4 | 5037.0 | 4864.2 | 4811.8 | 4838.0 | 4900.8 | 4989.9 | 5110.3 | 5120.8 |
| 20°   | 5906.2 | 5707.2 | 5288.3 | 4937.5 | 4775.2 | 4764.7 | 4838.0 | 4937.5 | 5031.7 | 5173.1 | 5188.8 |
| 22.5° | 5937.6 | 5696.7 | 5209.8 | 4817.1 | 4675.7 | 4707.1 | 4843.3 | 4968.9 | 5063.2 | 5215.0 | 5241.2 |
| 25°   | 5995.2 | 5712.4 | 5131.2 | 4696.6 | 4571.0 | 4660.0 | 4838.0 | 4989.9 | 5089.3 | 5246.4 | 5288.3 |
| 27.5° | 6073.7 | 5749.1 | 5073.6 | 4586.7 | 4466.3 | 4586.7 | 4801.4 | 4984.6 | 5089.3 | 5241.2 | 5288.3 |
| 30°   | 6157.5 | 5791.0 | 5005.6 | 4466.3 | 4345.8 | 4482.0 | 4722.8 | 4927.0 | 5047.5 | 5188.8 | 5246.4 |
| 32.5° | 6246.5 | 5838.1 | 4948.0 | 4335.4 | 4199.2 | 4340.6 | 4607.6 | 4838.0 | 4968.9 | 5099.8 | 5162.6 |
| 35°   | 6366.9 | 5921.9 | 4916.6 | 4230.6 | 4068.3 | 4194.0 | 4461.0 | 4722.8 | 4864.2 | 4984.6 | 5057.9 |
| 37.5° | 6513.5 | 6026.6 | 4900.8 | 4125.9 | 3927.0 | 4031.7 | 4304.0 | 4581.5 | 4733.3 | 4832.8 | 4900.8 |
| 40°   | 6681.1 | 6157.5 | 4895.6 | 4026.4 | 3785.6 | 3864.1 | 4141.6 | 4419.1 | 4565.7 | 4644.3 | 4701.9 |
| 42.5° | 6869.6 | 6304.1 | 4885.1 | 3927.0 | 3644.2 | 3707.1 | 3984.6 | 4256.8 | 4382.5 | 4450.6 | 4502.9 |
| 45°   | 7068.5 | 6450.7 | 4864.2 | 3806.5 | 3492.4 | 3565.7 | 3822.2 | 4063.1 | 4194.0 | 4251.6 | 4309.2 |
| 47.5° | 7267.5 | 6597.3 | 4822.3 | 3670.4 | 3356.2 | 3424.3 | 3649.5 | 3858.9 | 3963.6 | 4016.0 | 4073.6 |
| 50°   | 7461.2 | 6728.2 | 4722.8 | 3513.3 | 3214.9 | 3277.7 | 3450.5 | 3591.9 | 3670.4 | 3712.3 | 3769.9 |
| 52.5° | 7634.0 | 6817.2 | 4581.5 | 3330.1 | 3073.5 | 3104.9 | 3220.1 | 3340.5 | 3403.4 | 3408.6 | 3461.0 |
| 55°   | 7780.6 | 6864.3 | 4377.3 | 3141.6 | 2921.7 | 2926.9 | 2989.7 | 3084.0 | 3110.2 | 3089.2 | 3125.9 |
| 57.5° | 7864.4 | 6838.2 | 4152.1 | 2947.8 | 2764.6 | 2743.6 | 2790.8 | 2837.9 | 2843.1 | 2790.8 | 2827.4 |
| 60°   | 7885.3 | 6717.7 | 3858.9 | 2754.1 | 2607.5 | 2549.9 | 2565.6 | 2555.1 | 2544.7 | 2523.7 | 2555.1 |
| 62.5° | 7780.6 | 6461.2 | 3534.3 | 2565.6 | 2440.0 | 2350.9 | 2345.7 | 2340.5 | 2356.2 | 2361.4 | 2366.6 |
| 65°   | 7398.4 | 5979.5 | 3146.8 | 2371.9 | 2261.9 | 2141.5 | 2136.3 | 2199.1 | 2220.0 | 2188.6 | 2199.1 |
| 67.5° | 6660.1 | 5241.2 | 2722.7 | 2146.7 | 2036.8 | 1932.1 | 1974.0 | 2010.6 | 2047.3 | 2036.8 | 2047.3 |
| 70°   | 5612.9 | 4304.0 | 2335.2 | 1895.4 | 1790.7 | 1733.1 | 1780.2 | 1811.6 | 1816.9 | 1806.4 | 1816.9 |
| 72.5° | 4413.9 | 3361.5 | 1974.0 | 1638.9 | 1544.6 | 1518.4 | 1576.0 | 1602.2 | 1649.3 | 1670.3 | 1675.5 |
| 75°   | 3188.7 | 2481.8 | 1617.9 | 1361.3 | 1282.8 | 1282.8 | 1335.2 | 1382.3 | 1424.2 | 1398.0 | 1382.3 |
| 77.5° | 1780.2 | 1481.8 | 1162.4 | 937.2  | 952.9  | 1026.2 | 1047.2 | 1099.5 | 1141.4 | 1136.2 | 1125.7 |
| 80°   | 1078.6 | 926.8  | 785.4  | 607.4  | 602.1  | 659.7  | 795.9  | 884.9  | 905.8  | 858.7  | 853.5  |
| 82.5° | 560.2  | 486.9  | 418.9  | 340.3  | 377.0  | 439.8  | 460.8  | 555.0  | 612.6  | 591.7  | 617.8  |
| 85°   | 141.4  | 136.1  | 151.8  | 157.1  | 193.7  | 214.7  | 235.6  | 277.5  | 183.3  | 89.0   | 89.0   |
| 87.5° | 41.9   | 41.9   | 52.4   | 52.4   | 68.1   | 83.8   | 78.5   | 78.5   | 41.9   | 5.2    | 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)