

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: LUMARK

Report Number: P380939

Luminaire Tested: **PRV-XL-PA4B-8540-U-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P380939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: PRV-XL-PA4B-8540-U-T3  
Description: PREVAIL AREA AND ROADWAY LUMINAIRE  
(4) 85 CRI, 4000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30953.6 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Luminous Opening: Rectangular (W 1.42' x L: 1.79' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G5

Input Watts (W): 303  
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

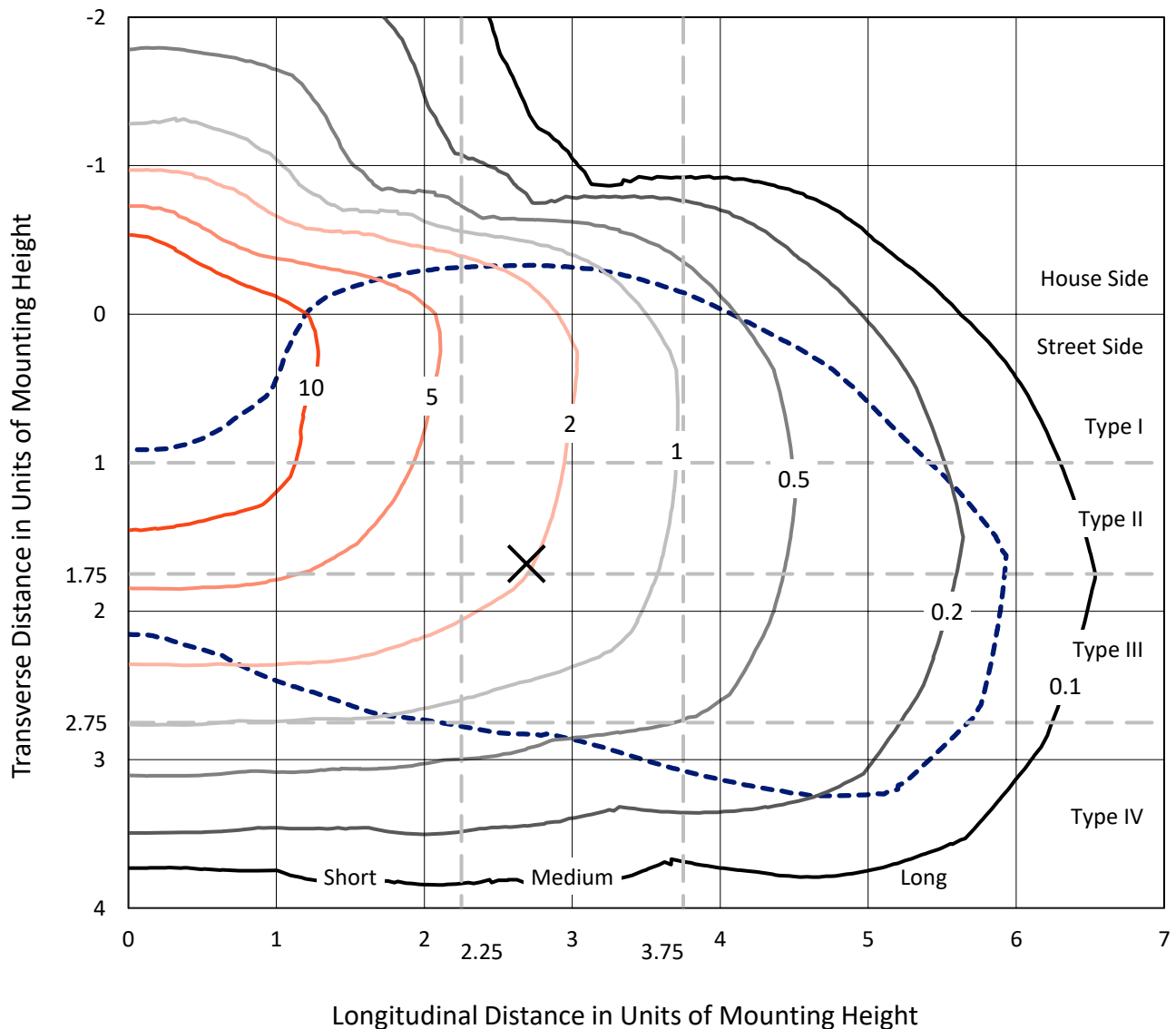


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

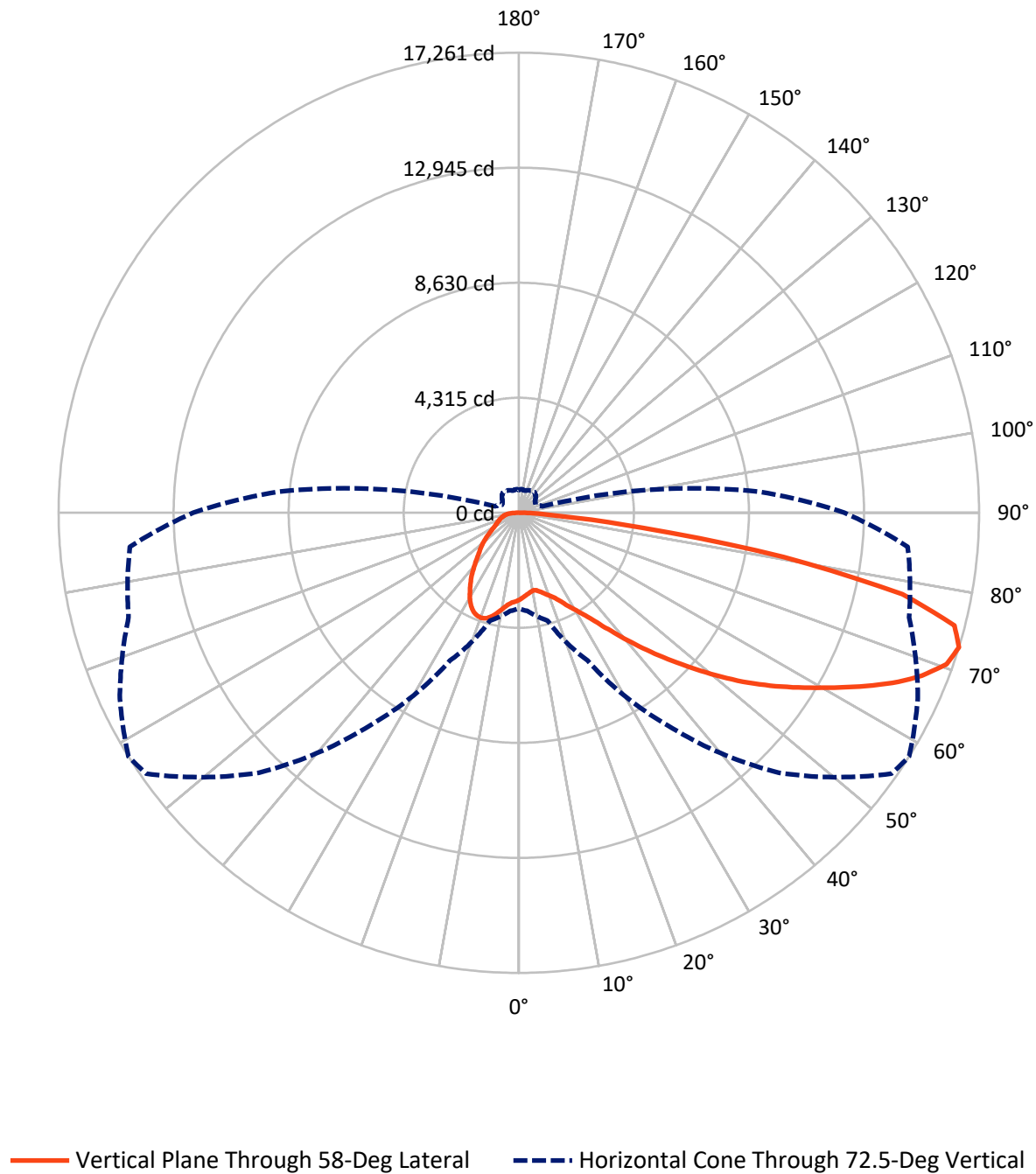


Based on 15 foot mounting height. Maximum calculated value = 16.8 fc  
 Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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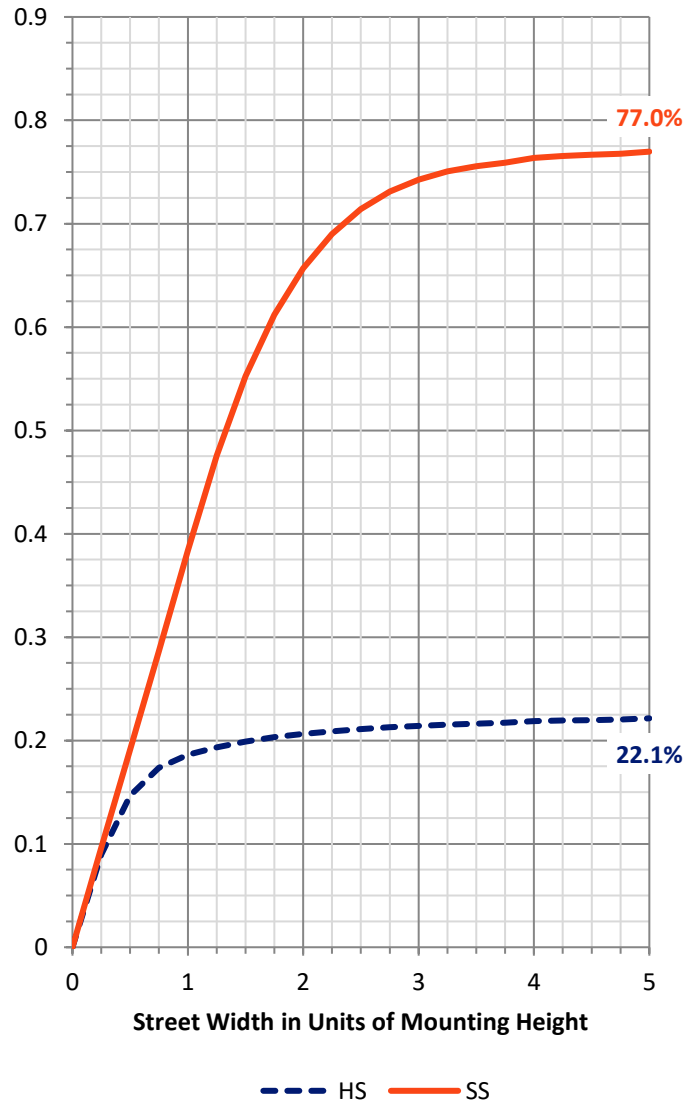
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7019.9   | 0.0    | 7019.9  |
|                    | % Fixture | 22.7     | 0.0    | 22.7    |
| <b>Street Side</b> | Lumens    | 23933.6  | 0.0    | 23933.6 |
|                    | % Fixture | 77.3     | 0.0    | 77.3    |
| <b>Total</b>       | Lumens    | 30953.6  | 0.0    | 30953.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 314.5   | 1.0       |
| 10°-20°   | 998.8   | 3.2       |
| 20°-30°   | 1789.2  | 5.8       |
| 30°-40°   | 2691.5  | 8.7       |
| 40°-50°   | 4358.5  | 14.1      |
| 50°-60°   | 6560.9  | 21.2      |
| 60°-70°   | 7721.5  | 24.9      |
| 70°-80°   | 5475.3  | 17.7      |
| 80°-90°   | 1043.3  | 3.4       |
| 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°    | 30953.6 | 100.0     |
| 0°-180°   | 30953.6 | 100.0     |

**Coefficient of Utilization**



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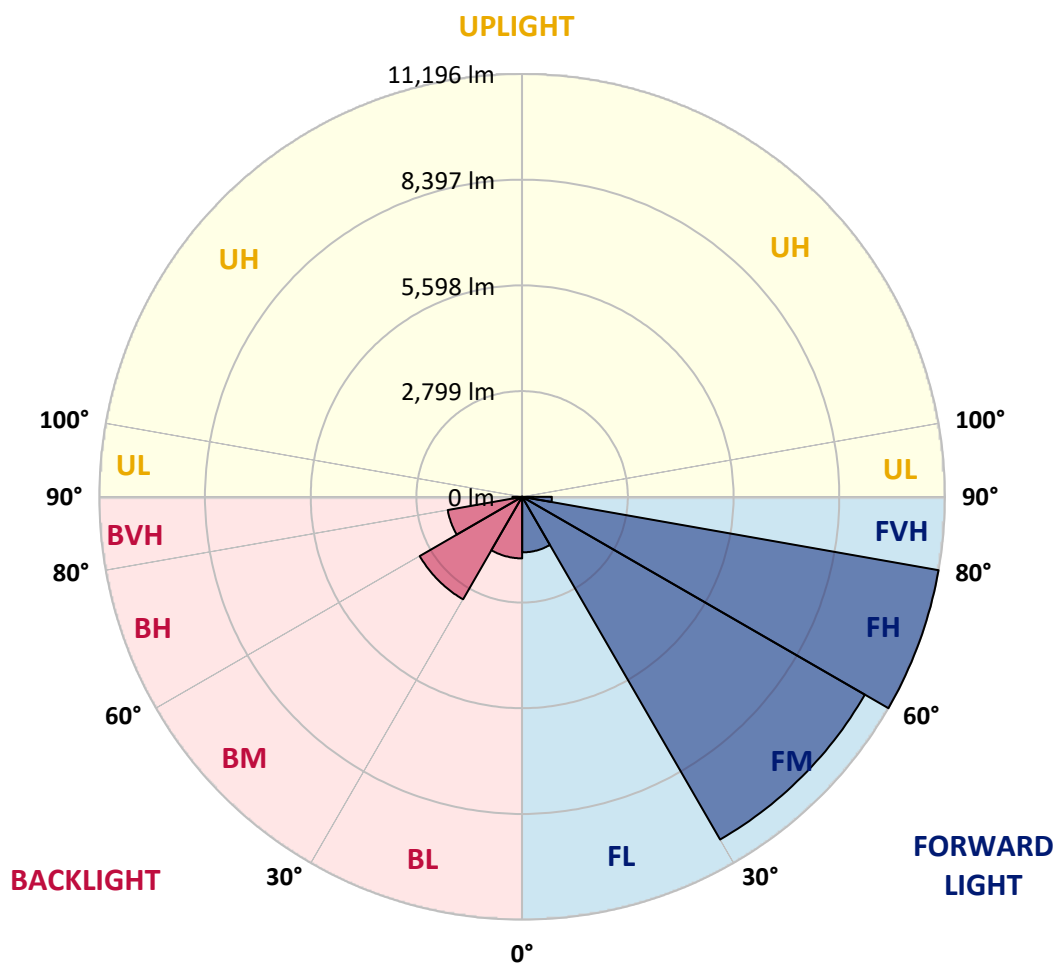
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1472.0  | 4.8       |                         |      |          |
| FM   | (30°-60°)   | 10478.7 | 33.9      |                         |      |          |
| FH   | (60°-80°)   | 11196.0 | 36.2      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 787.0   | 2.5       |                         |      | G5       |
| BL   | (0°-30°)    | 1630.6  | 5.3       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 3132.2  | 10.1      | B3/5000                 |      |          |
| BH   | (60°-80°)   | 2000.7  | 6.5       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 256.3   | 0.8       |                         |      | G3/500   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G5**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 58°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3265.0  | 3265.0  | 3265.0  | 3265.0  | 3265.0  | 3265.0  | 3265.0  | 3265.0  | 3265.0  | 3265.0  | 3265.0  |
| 2.5°  | 3142.3  | 3126.0  | 3130.1  | 3130.1  | 3146.4  | 3154.6  | 3158.7  | 3171.0  | 3179.1  | 3199.6  | 3228.2  |
| 5°    | 2995.2  | 2983.0  | 2987.1  | 2991.1  | 3019.8  | 3048.4  | 3072.9  | 3089.2  | 3113.8  | 3146.4  | 3187.3  |
| 7.5°  | 2889.0  | 2880.8  | 2884.9  | 2893.1  | 2917.6  | 2950.3  | 2991.1  | 3015.6  | 3052.4  | 3113.8  | 3183.2  |
| 10°   | 2811.4  | 2811.4  | 2815.4  | 2831.8  | 2856.3  | 2897.2  | 2929.8  | 2958.5  | 3032.0  | 3142.3  | 3248.6  |
| 12.5° | 2750.1  | 2750.1  | 2762.3  | 2795.0  | 2835.9  | 2876.7  | 2954.4  | 2987.1  | 3085.2  | 3236.4  | 3363.0  |
| 15°   | 2746.0  | 2750.1  | 2754.1  | 2782.8  | 2827.7  | 2917.6  | 3032.0  | 3081.0  | 3199.6  | 3379.3  | 3526.5  |
| 17.5° | 2811.4  | 2815.4  | 2799.1  | 2807.3  | 2860.4  | 2987.1  | 3138.3  | 3195.5  | 3346.7  | 3542.8  | 3694.0  |
| 20°   | 3011.6  | 3011.6  | 2962.6  | 2917.6  | 2954.4  | 3093.3  | 3265.0  | 3322.1  | 3489.7  | 3706.3  | 3857.4  |
| 22.5° | 3420.2  | 3440.7  | 3326.3  | 3228.2  | 3171.0  | 3248.6  | 3403.9  | 3465.2  | 3653.2  | 3886.0  | 4037.2  |
| 25°   | 3914.7  | 3935.1  | 3779.8  | 3640.9  | 3534.6  | 3522.4  | 3624.5  | 3689.9  | 3845.2  | 4086.3  | 4212.9  |
| 27.5° | 4392.8  | 4356.0  | 4212.9  | 4082.2  | 3947.3  | 3837.0  | 3914.7  | 3971.8  | 4151.7  | 4335.5  | 4413.2  |
| 30°   | 4768.7  | 4740.1  | 4601.1  | 4507.2  | 4380.5  | 4237.4  | 4192.5  | 4253.8  | 4400.9  | 4572.6  | 4613.4  |
| 32.5° | 5185.5  | 5165.1  | 5026.2  | 4903.5  | 4797.3  | 4662.5  | 4564.3  | 4593.0  | 4674.7  | 4797.3  | 4821.8  |
| 35°   | 5716.7  | 5761.6  | 5614.6  | 5365.3  | 5246.8  | 5116.0  | 5046.6  | 5054.7  | 5116.0  | 5193.6  | 5152.8  |
| 37.5° | 6276.5  | 6329.7  | 6337.8  | 5945.6  | 5786.2  | 5667.7  | 5594.1  | 5622.7  | 5696.2  | 5749.4  | 5622.7  |
| 40°   | 7314.5  | 7261.3  | 7048.9  | 6758.7  | 6513.5  | 6399.1  | 6297.0  | 6292.9  | 6346.0  | 6440.0  | 6211.1  |
| 42.5° | 8691.5  | 8642.5  | 8213.4  | 7837.5  | 7449.3  | 7318.5  | 7118.3  | 7032.5  | 7057.0  | 7175.5  | 6856.8  |
| 45°   | 10011.4 | 9991.0  | 9647.7  | 9210.5  | 8744.6  | 8491.3  | 8033.7  | 7825.2  | 7804.8  | 7898.8  | 7518.8  |
| 47.5° | 11184.1 | 11094.2 | 10845.0 | 10505.8 | 10456.8 | 9794.9  | 8953.1  | 8671.1  | 8573.0  | 8626.2  | 8201.1  |
| 50°   | 12438.7 | 12132.2 | 11788.9 | 11580.6 | 11936.1 | 11319.0 | 9880.7  | 9586.4  | 9345.3  | 9382.1  | 8940.8  |
| 52.5° | 13104.7 | 12589.9 | 12365.1 | 12426.4 | 12904.5 | 12667.5 | 10890.0 | 10530.3 | 10142.2 | 10195.3 | 9676.3  |
| 55°   | 12532.6 | 12528.5 | 12626.7 | 13006.6 | 13672.7 | 13398.9 | 11850.2 | 11445.7 | 11020.7 | 11032.9 | 10522.2 |
| 57.5° | 11748.1 | 11907.5 | 12414.2 | 13251.8 | 14624.8 | 14167.1 | 12794.1 | 12365.1 | 11976.9 | 11915.6 | 11482.5 |
| 60°   | 11032.9 | 11208.6 | 11944.2 | 13210.9 | 14955.8 | 14870.0 | 13693.1 | 13317.2 | 13002.6 | 12822.8 | 12491.7 |
| 62.5° | 9946.1  | 10076.8 | 11118.8 | 12949.4 | 14678.0 | 15376.7 | 14604.4 | 14347.0 | 14110.0 | 13738.1 | 13578.7 |
| 65°   | 8667.0  | 8712.0  | 9811.1  | 12087.2 | 14330.6 | 15572.9 | 15511.5 | 15397.1 | 15168.3 | 14620.7 | 14653.5 |
| 67.5° | 7281.7  | 7371.6  | 8336.1  | 10710.2 | 13570.6 | 15483.0 | 16214.4 | 16308.4 | 16038.7 | 15217.3 | 15339.9 |
| 70°   | 5806.6  | 5917.0  | 6648.4  | 8805.9  | 12279.3 | 15094.8 | 16864.1 | 17015.3 | 16496.3 | 15413.4 | 15466.6 |
| 72.5° | 3591.9  | 3698.1  | 4188.4  | 6117.2  | 9733.6  | 13791.2 | 17064.3 | 17260.5 | 16508.6 | 15151.9 | 14641.2 |
| 75°   | 1242.2  | 1254.5  | 1638.6  | 2934.0  | 5778.0  | 10411.9 | 16410.5 | 16872.2 | 15989.6 | 14199.9 | 12741.1 |
| 77.5° | 568.0   | 588.4   | 727.3   | 1209.6  | 2562.1  | 5618.7  | 13550.1 | 14706.5 | 14412.4 | 12712.4 | 9807.1  |
| 80°   | 392.3   | 400.4   | 502.6   | 723.3   | 1479.2  | 1977.8  | 8552.6  | 10060.5 | 10575.3 | 9843.9  | 6284.7  |
| 82.5° | 294.3   | 302.4   | 388.2   | 490.4   | 1066.5  | 960.3   | 3256.7  | 4674.7  | 5810.7  | 5704.5  | 2627.5  |
| 85°   | 282.0   | 277.9   | 302.4   | 326.9   | 711.0   | 572.1   | 1054.2  | 1446.5  | 2267.9  | 1941.0  | 661.9   |
| 87.5° | 122.6   | 134.8   | 310.5   | 183.8   | 371.8   | 265.6   | 457.7   | 535.3   | 690.6   | 600.7   | 237.0   |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3265.0  | 3265.0  | 3265.0 | 3265.0 | 3265.0 | 3265.0 | 3265.0 | 3265.0 | 3265.0 | 3265.0 | 3265.0 |
| 2.5°  | 3240.4  | 3248.6  | 3273.1 | 3309.9 | 3330.3 | 3371.2 | 3399.8 | 3416.2 | 3428.4 | 3432.5 | 3432.5 |
| 5°    | 3211.8  | 3228.2  | 3281.3 | 3342.5 | 3399.8 | 3485.6 | 3563.3 | 3608.2 | 3640.9 | 3653.2 | 3657.2 |
| 7.5°  | 3220.0  | 3260.9  | 3338.5 | 3428.4 | 3502.0 | 3612.3 | 3706.3 | 3796.1 | 3869.7 | 3898.3 | 3898.3 |
| 10°   | 3297.6  | 3354.8  | 3461.1 | 3579.6 | 3673.6 | 3788.0 | 3886.0 | 3963.7 | 4049.5 | 4098.5 | 4106.7 |
| 12.5° | 3416.2  | 3485.6  | 3624.5 | 3755.3 | 3861.5 | 3951.4 | 4041.3 | 4098.5 | 4139.4 | 4176.2 | 4184.4 |
| 15°   | 3583.6  | 3669.5  | 3808.4 | 3943.3 | 4037.2 | 4094.5 | 4119.0 | 4119.0 | 4114.9 | 4119.0 | 4127.1 |
| 17.5° | 3751.2  | 3832.9  | 3971.8 | 4106.7 | 4151.7 | 4119.0 | 4090.4 | 4082.2 | 4078.1 | 4070.0 | 4074.0 |
| 20°   | 3914.7  | 3992.3  | 4110.8 | 4212.9 | 4176.2 | 4061.7 | 4025.0 | 4020.9 | 4008.6 | 4000.5 | 3992.3 |
| 22.5° | 4078.1  | 4135.3  | 4233.4 | 4270.2 | 4123.0 | 3959.6 | 3914.7 | 3890.2 | 3873.8 | 3853.4 | 3832.9 |
| 25°   | 4266.1  | 4282.5  | 4356.0 | 4298.7 | 3992.3 | 3771.6 | 3706.3 | 3669.5 | 3653.2 | 3632.7 | 3616.4 |
| 27.5° | 4441.8  | 4441.8  | 4454.0 | 4253.8 | 3800.2 | 3522.4 | 3424.3 | 3358.9 | 3354.8 | 3350.8 | 3346.7 |
| 30°   | 4601.1  | 4580.7  | 4539.8 | 4119.0 | 3551.0 | 3215.9 | 3068.8 | 3003.4 | 3027.9 | 3048.4 | 3052.4 |
| 32.5° | 4789.1  | 4748.3  | 4633.9 | 3935.1 | 3252.7 | 2872.7 | 2692.9 | 2664.2 | 2692.9 | 2717.4 | 2701.0 |
| 35°   | 5083.3  | 5009.8  | 4731.9 | 3722.6 | 2966.6 | 2558.0 | 2386.4 | 2345.6 | 2337.3 | 2333.3 | 2300.6 |
| 37.5° | 5504.3  | 5377.6  | 4809.6 | 3493.7 | 2684.7 | 2280.2 | 2153.5 | 2067.7 | 1990.0 | 1908.3 | 1896.0 |
| 40°   | 6019.1  | 5802.5  | 4862.7 | 3232.2 | 2386.4 | 2047.2 | 1912.4 | 1802.1 | 1671.3 | 1528.3 | 1511.9 |
| 42.5° | 6583.0  | 6260.2  | 4887.2 | 2942.1 | 2124.9 | 1855.2 | 1687.6 | 1548.7 | 1401.6 | 1291.2 | 1270.8 |
| 45°   | 7191.9  | 6754.6  | 4866.7 | 2664.2 | 1912.4 | 1691.7 | 1503.8 | 1352.6 | 1234.1 | 1156.4 | 1140.0 |
| 47.5° | 7784.4  | 7322.6  | 4809.6 | 2443.6 | 1748.9 | 1552.8 | 1360.7 | 1221.8 | 1131.9 | 1046.1 | 1025.7 |
| 50°   | 8544.4  | 7866.1  | 4740.1 | 2272.0 | 1569.1 | 1413.9 | 1270.8 | 1123.8 | 1021.6 | 980.7  | 972.6  |
| 52.5° | 9386.2  | 8409.6  | 4658.4 | 2055.4 | 1393.4 | 1303.5 | 1213.6 | 1082.9 | 1050.2 | 972.6  | 960.3  |
| 55°   | 10297.5 | 9055.2  | 4642.0 | 1781.6 | 1238.2 | 1225.9 | 1156.4 | 1119.6 | 1127.8 | 972.6  | 952.1  |
| 57.5° | 11257.7 | 9745.8  | 4678.8 | 1507.8 | 1111.5 | 1156.4 | 1180.9 | 1152.3 | 1140.0 | 993.0  | 952.1  |
| 60°   | 12258.9 | 10411.9 | 4568.5 | 1254.5 | 1013.4 | 1099.2 | 1209.6 | 1136.0 | 1046.1 | 984.8  | 956.2  |
| 62.5° | 13231.4 | 10971.7 | 4090.4 | 1074.7 | 939.8  | 1082.9 | 1193.2 | 1074.7 | 972.6  | 972.6  | 960.3  |
| 65°   | 13938.3 | 11220.9 | 3199.6 | 943.9  | 890.8  | 1062.5 | 1164.6 | 1033.8 | 952.1  | 980.7  | 964.3  |
| 67.5° | 14020.0 | 10963.5 | 2149.4 | 841.8  | 849.9  | 1025.7 | 1099.2 | 997.1  | 931.7  | 1005.2 | 980.7  |
| 70°   | 13517.4 | 10293.3 | 1315.8 | 764.1  | 796.9  | 960.3  | 1042.0 | 960.3  | 903.0  | 984.8  | 948.1  |
| 72.5° | 12213.9 | 9042.9  | 927.6  | 698.7  | 739.6  | 899.0  | 988.9  | 927.6  | 862.2  | 890.8  | 854.0  |
| 75°   | 10019.6 | 7008.0  | 735.6  | 637.4  | 682.4  | 841.8  | 943.9  | 878.5  | 813.1  | 800.9  | 776.4  |
| 77.5° | 7097.9  | 4490.8  | 592.5  | 588.4  | 621.2  | 772.3  | 882.7  | 821.4  | 756.0  | 731.5  | 715.1  |
| 80°   | 4082.2  | 2202.5  | 510.8  | 531.2  | 563.9  | 702.8  | 809.1  | 756.0  | 694.7  | 657.9  | 633.4  |
| 82.5° | 1561.0  | 768.2   | 449.5  | 461.7  | 498.5  | 629.3  | 735.6  | 690.6  | 629.3  | 661.9  | 555.8  |
| 85°   | 506.7   | 420.9   | 367.8  | 380.0  | 416.8  | 523.0  | 649.7  | 612.9  | 543.5  | 482.2  | 445.4  |
| 87.5° | 224.7   | 228.9   | 196.1  | 216.6  | 261.5  | 347.3  | 474.0  | 449.5  | 396.4  | 331.0  | 318.8  |
| 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)