

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: McGRAW-EDISON

Report Number: P833894

Luminaire Tested: **TTN-D3-735-U-MQ-UPL2**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833894
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G3-2308-121-4) AND
Test Lab: INNOVATION CENTER
Issue Date: 5/15/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TTN-D3-735-U-MQ-UPL2
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7536.8 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B3 - U4 - G2

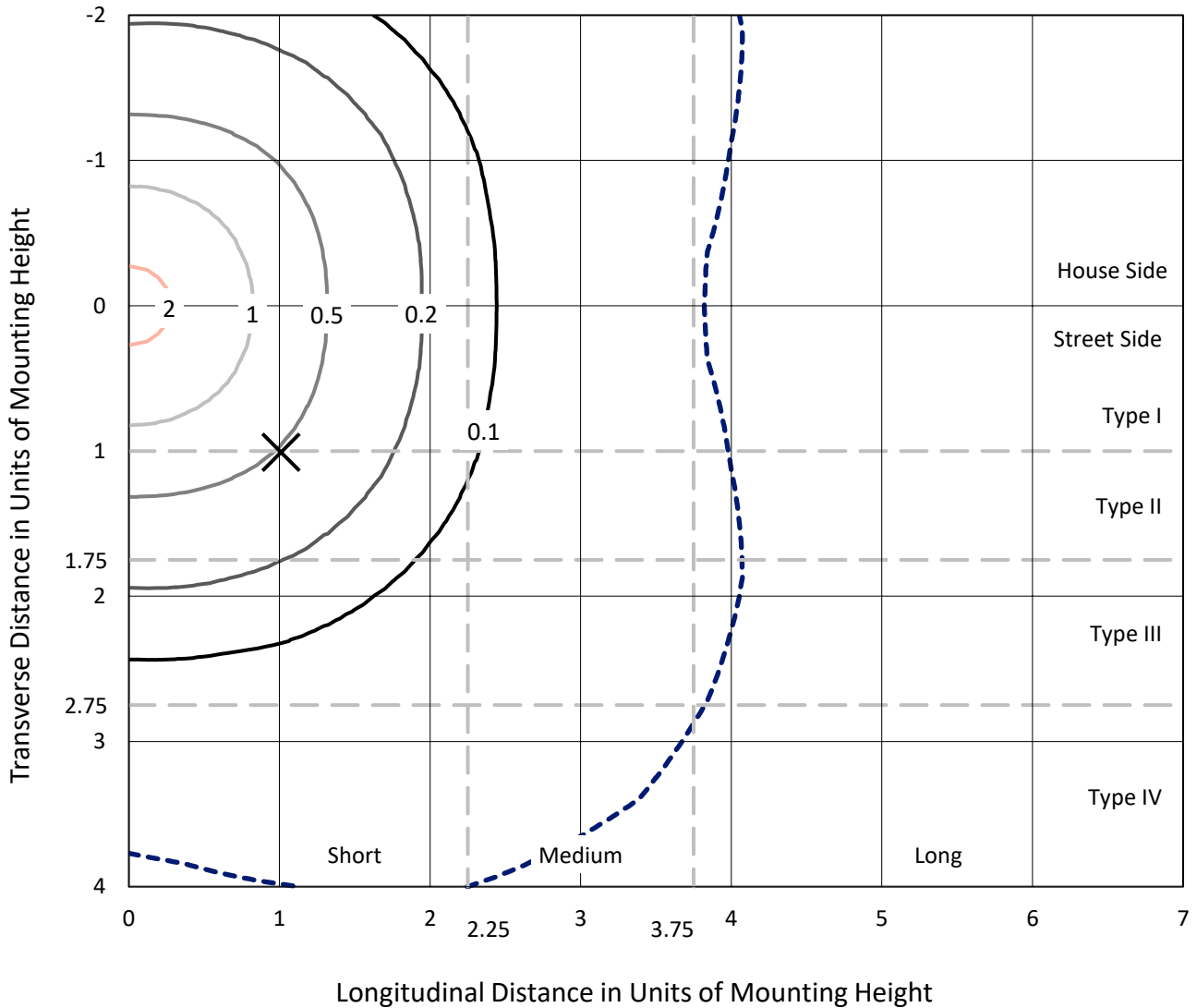
Input Watts (W): 63.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

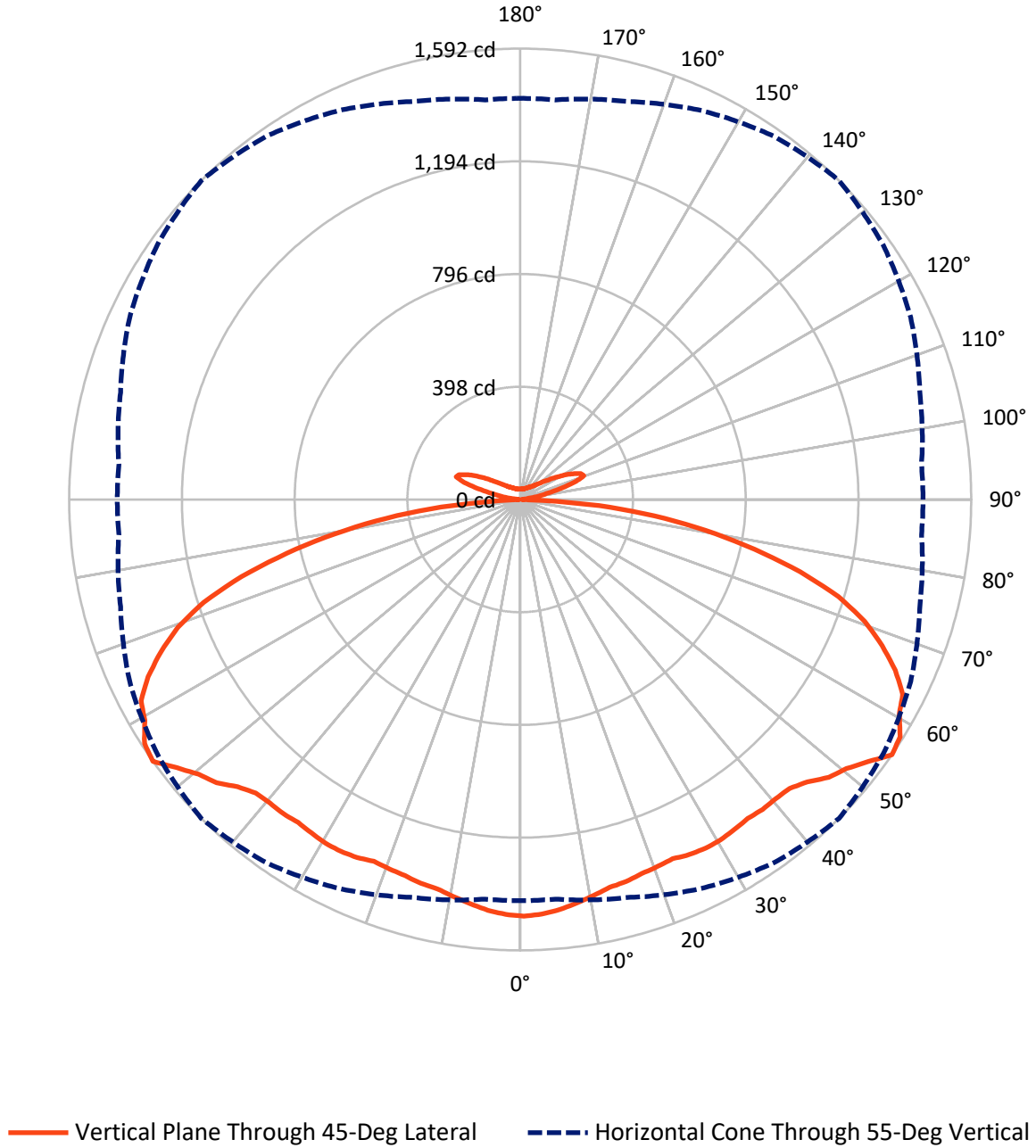
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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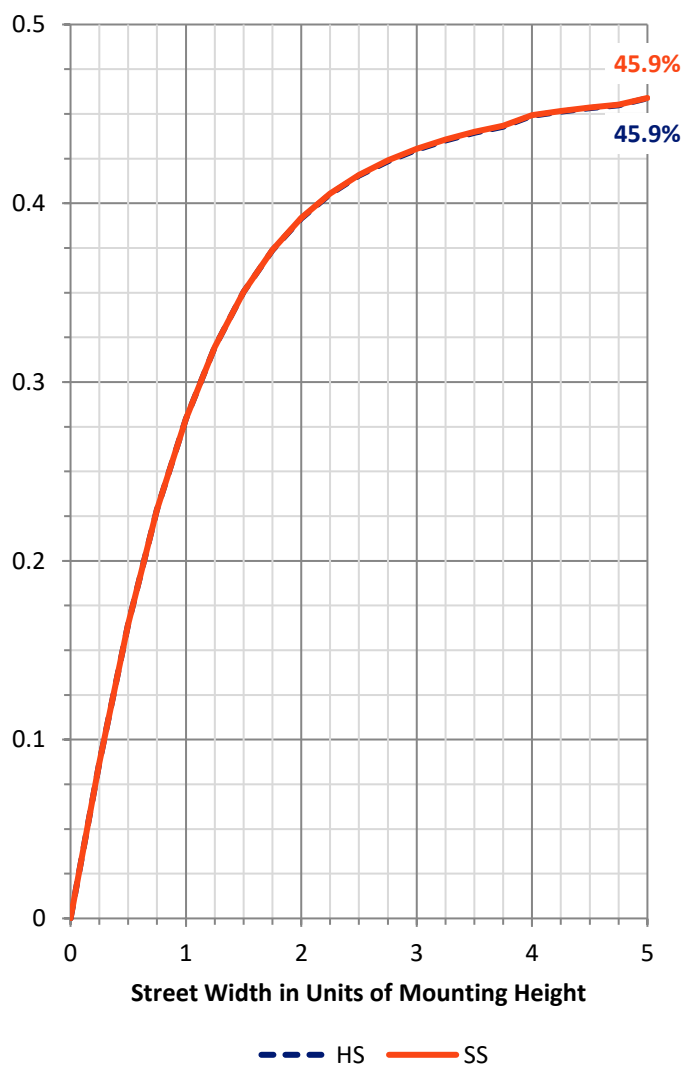
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 3496.9 | 271.5 | 3768.4 |
| | % Fixture | 46.4 | 3.6 | 50.0 |
| Street Side | Lumens | 3496.9 | 271.5 | 3768.4 |
| | % Fixture | 46.4 | 3.6 | 50.0 |
| Total | Lumens | 6993.7 | 543.0 | 7536.8 |
| | % Fixture | 92.8 | 7.2 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 137.7 | 1.8 |
| 10°-20° | 395.3 | 5.2 |
| 20°-30° | 638.9 | 8.5 |
| 30°-40° | 864.6 | 11.5 |
| 40°-50° | 1083.0 | 14.4 |
| 50°-60° | 1327.1 | 17.6 |
| 60°-70° | 1330.4 | 17.7 |
| 70°-80° | 960.0 | 12.7 |
| 80°-90° | 256.7 | 3.4 |
| 90°-100° | 12.1 | 0.2 |
| 100°-110° | 123.2 | 1.6 |
| 110°-120° | 180.1 | 2.4 |
| 120°-130° | 104.5 | 1.4 |
| 130°-140° | 55.4 | 0.7 |
| 140°-150° | 32.9 | 0.4 |
| 150°-160° | 20.2 | 0.3 |
| 160°-170° | 11.0 | 0.1 |
| 170°-180° | 3.6 | 0.0 |
| 0°-90° | 6993.7 | 92.8 |
| 0°-180° | 7536.8 | 100.0 |

Coefficient of Utilization

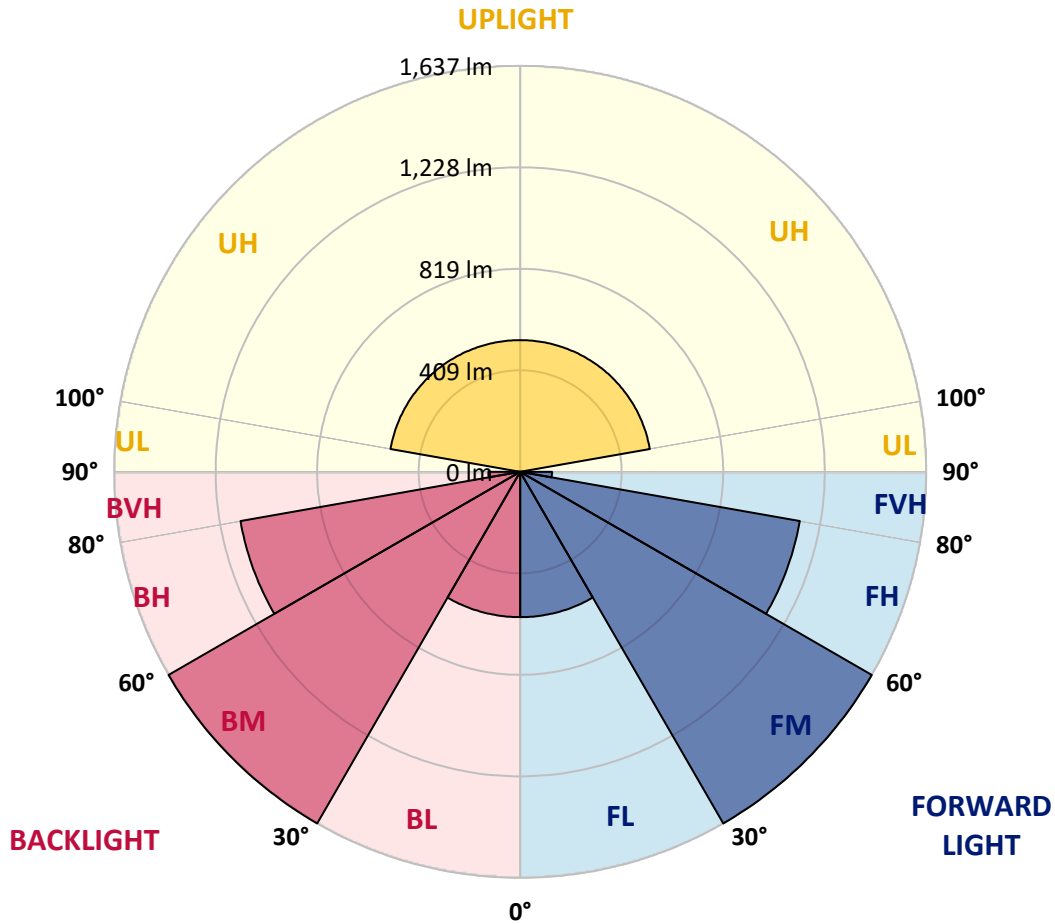


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|---------|---------|
| | | | B | U | G |
| FL (0°-30°) | 586.0 | 7.8 | | | |
| FM (30°-60°) | 1637.3 | 21.7 | | | |
| FH (60°-80°) | 1145.2 | 15.2 | | | G1/1800 |
| FVH (80°-90°) | 128.4 | 1.7 | | | G2/225 |
| BL (0°-30°) | 586.0 | 7.8 | B2/1000 | | |
| BM (30°-60°) | 1637.3 | 21.7 | B2/2500 | | |
| BH (60°-80°) | 1145.2 | 15.2 | B3/2500 | | G1/1800 |
| BVH (80°-90°) | 128.4 | 1.7 | | | G2/225 |
| UL (90°-100°) | 12.1 | 0.2 | | U2/50 | |
| UH (100°-180°) | 530.9 | 7.0 | | U4/1000 | |

BUG Rating: B3-U4-G2
 Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1471.3 | 1471.3 | 1471.3 | 1471.3 | 1471.3 | 1471.3 | 1471.3 | 1471.3 | 1471.3 | 1471.3 | 1471.3 |
| 2.5° | 1465.8 | 1465.8 | 1465.8 | 1460.3 | 1465.8 | 1465.8 | 1465.8 | 1465.8 | 1465.8 | 1465.8 | 1465.8 |
| 5° | 1454.8 | 1454.8 | 1454.8 | 1454.8 | 1454.8 | 1454.8 | 1454.8 | 1454.8 | 1454.8 | 1454.8 | 1454.8 |
| 7.5° | 1438.3 | 1438.3 | 1438.3 | 1438.3 | 1438.3 | 1438.3 | 1438.3 | 1438.3 | 1438.3 | 1438.3 | 1438.3 |
| 10° | 1416.4 | 1416.4 | 1416.4 | 1416.4 | 1421.9 | 1421.9 | 1421.9 | 1421.9 | 1416.4 | 1416.4 | 1416.4 |
| 12.5° | 1399.9 | 1399.9 | 1399.9 | 1405.4 | 1405.4 | 1405.4 | 1405.4 | 1405.4 | 1405.4 | 1405.4 | 1399.9 |
| 15° | 1394.4 | 1394.4 | 1394.4 | 1394.4 | 1399.9 | 1399.9 | 1399.9 | 1399.9 | 1394.4 | 1394.4 | 1394.4 |
| 17.5° | 1383.4 | 1383.4 | 1383.4 | 1388.9 | 1388.9 | 1388.9 | 1388.9 | 1388.9 | 1383.4 | 1383.4 | 1383.4 |
| 20° | 1372.5 | 1372.5 | 1377.9 | 1377.9 | 1383.4 | 1383.4 | 1383.4 | 1377.9 | 1377.9 | 1372.5 | 1377.9 |
| 22.5° | 1372.5 | 1372.5 | 1372.5 | 1377.9 | 1377.9 | 1377.9 | 1377.9 | 1372.5 | 1372.5 | 1372.5 | 1372.5 |
| 25° | 1372.5 | 1372.5 | 1377.9 | 1383.4 | 1383.4 | 1388.9 | 1383.4 | 1377.9 | 1372.5 | 1372.5 | 1372.5 |
| 27.5° | 1377.9 | 1377.9 | 1383.4 | 1388.9 | 1388.9 | 1394.4 | 1388.9 | 1383.4 | 1377.9 | 1377.9 | 1377.9 |
| 30° | 1377.9 | 1377.9 | 1383.4 | 1388.9 | 1388.9 | 1394.4 | 1388.9 | 1383.4 | 1377.9 | 1377.9 | 1377.9 |
| 32.5° | 1367.0 | 1372.5 | 1377.9 | 1383.4 | 1388.9 | 1388.9 | 1388.9 | 1383.4 | 1377.9 | 1372.5 | 1372.5 |
| 35° | 1361.5 | 1367.0 | 1372.5 | 1377.9 | 1383.4 | 1383.4 | 1383.4 | 1377.9 | 1372.5 | 1367.0 | 1367.0 |
| 37.5° | 1356.0 | 1356.0 | 1367.0 | 1372.5 | 1377.9 | 1388.9 | 1383.4 | 1372.5 | 1367.0 | 1361.5 | 1361.5 |
| 40° | 1350.5 | 1356.0 | 1361.5 | 1372.5 | 1377.9 | 1388.9 | 1383.4 | 1372.5 | 1361.5 | 1356.0 | 1356.0 |
| 42.5° | 1350.5 | 1350.5 | 1361.5 | 1372.5 | 1383.4 | 1394.4 | 1388.9 | 1377.9 | 1361.5 | 1356.0 | 1350.5 |
| 45° | 1356.0 | 1361.5 | 1377.9 | 1399.9 | 1410.9 | 1421.9 | 1416.4 | 1399.9 | 1372.5 | 1361.5 | 1356.0 |
| 47.5° | 1377.9 | 1383.4 | 1399.9 | 1421.9 | 1449.3 | 1465.8 | 1449.3 | 1421.9 | 1399.9 | 1383.4 | 1377.9 |
| 50° | 1388.9 | 1394.4 | 1421.9 | 1449.3 | 1487.7 | 1493.2 | 1487.7 | 1449.3 | 1421.9 | 1394.4 | 1394.4 |
| 52.5° | 1410.9 | 1410.9 | 1443.8 | 1493.2 | 1526.2 | 1537.2 | 1526.2 | 1498.7 | 1443.8 | 1416.4 | 1410.9 |
| 55° | 1416.4 | 1416.4 | 1454.8 | 1515.2 | 1564.6 | 1592.0 | 1564.6 | 1520.7 | 1460.3 | 1421.9 | 1421.9 |
| 57.5° | 1383.4 | 1394.4 | 1443.8 | 1504.2 | 1564.6 | 1581.1 | 1564.6 | 1509.7 | 1449.3 | 1399.9 | 1394.4 |
| 60° | 1345.0 | 1361.5 | 1405.4 | 1476.8 | 1520.7 | 1537.2 | 1526.2 | 1476.8 | 1410.9 | 1361.5 | 1356.0 |
| 62.5° | 1306.6 | 1328.5 | 1377.9 | 1432.8 | 1498.7 | 1515.2 | 1498.7 | 1432.8 | 1377.9 | 1328.5 | 1306.6 |
| 65° | 1224.2 | 1246.2 | 1317.6 | 1383.4 | 1443.8 | 1454.8 | 1449.3 | 1383.4 | 1317.6 | 1246.2 | 1235.2 |
| 67.5° | 1141.9 | 1158.4 | 1207.8 | 1312.1 | 1361.5 | 1377.9 | 1367.0 | 1306.6 | 1213.3 | 1158.4 | 1152.9 |
| 70° | 1054.0 | 1070.5 | 1114.4 | 1213.3 | 1262.7 | 1290.1 | 1268.1 | 1213.3 | 1114.4 | 1070.5 | 1065.0 |
| 72.5° | 938.8 | 960.7 | 1010.1 | 1098.0 | 1147.4 | 1174.8 | 1152.9 | 1098.0 | 1010.1 | 955.2 | 944.3 |
| 75° | 801.5 | 818.0 | 878.4 | 949.7 | 999.1 | 1021.1 | 1004.6 | 955.2 | 878.4 | 818.0 | 812.5 |
| 77.5° | 653.3 | 669.8 | 724.7 | 796.0 | 823.5 | 845.4 | 829.0 | 790.5 | 724.7 | 669.8 | 664.3 |
| 80° | 494.1 | 510.6 | 560.0 | 614.9 | 642.3 | 664.3 | 647.8 | 609.4 | 560.0 | 510.6 | 505.1 |
| 82.5° | 323.9 | 340.4 | 384.3 | 428.2 | 455.7 | 477.6 | 461.1 | 422.7 | 389.8 | 340.4 | 334.9 |
| 85° | 137.2 | 153.7 | 192.1 | 236.1 | 258.0 | 280.0 | 263.5 | 230.6 | 192.1 | 159.2 | 153.7 |
| 87.5° | 11.0 | 16.5 | 16.5 | 22.0 | 16.5 | 27.4 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 |
| 90° | 4.6 | 4.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 4.6 | 4.6 |
| 92.5° | 4.6 | 4.6 | 4.6 | 6.5 | 7.4 | 6.5 | 7.4 | 5.6 | 5.6 | 4.6 | 4.6 |
| 95° | 5.6 | 5.6 | 6.5 | 8.4 | 10.2 | 11.1 | 11.1 | 6.5 | 6.5 | 5.6 | 5.6 |
| 97.5° | 7.4 | 8.4 | 8.4 | 10.2 | 16.7 | 30.7 | 18.6 | 9.3 | 9.3 | 8.4 | 7.4 |
| 100° | 12.1 | 13.0 | 13.0 | 23.2 | 49.2 | 66.0 | 47.4 | 24.2 | 17.7 | 13.0 | 13.0 |
| 102.5° | 39.0 | 40.9 | 50.2 | 75.3 | 111.5 | 101.3 | 85.5 | 80.8 | 55.7 | 44.6 | 42.7 |
| 105° | 99.4 | 98.5 | 105.9 | 125.4 | 156.1 | 153.3 | 141.2 | 128.2 | 110.6 | 102.2 | 102.2 |
| 107.5° | 131.0 | 131.0 | 137.5 | 154.2 | 177.4 | 207.2 | 210.0 | 166.3 | 145.9 | 136.6 | 135.6 |
| 110° | 147.7 | 147.7 | 153.3 | 167.2 | 197.9 | 239.7 | 237.8 | 205.3 | 180.2 | 168.2 | 166.3 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 151.4 | 152.4 | 159.8 | 181.2 | 214.6 | 233.2 | 224.8 | 211.8 | 200.7 | 191.4 | 189.5 |
| 115° | 157.0 | 157.0 | 165.4 | 185.8 | 204.4 | 211.8 | 202.5 | 192.3 | 184.9 | 181.2 | 183.0 |
| 117.5° | 155.1 | 157.9 | 159.8 | 170.9 | 183.0 | 188.6 | 183.9 | 170.0 | 164.4 | 162.6 | 159.8 |
| 120° | 144.0 | 144.0 | 145.9 | 151.4 | 157.9 | 160.7 | 158.9 | 149.6 | 144.9 | 144.0 | 142.1 |
| 122.5° | 128.2 | 129.1 | 128.2 | 131.0 | 135.6 | 138.4 | 136.6 | 129.1 | 127.3 | 127.3 | 125.4 |
| 125° | 112.4 | 112.4 | 111.5 | 113.3 | 116.1 | 115.2 | 116.1 | 112.4 | 111.5 | 111.5 | 110.6 |
| 127.5° | 101.3 | 100.3 | 98.5 | 99.4 | 100.3 | 100.3 | 101.3 | 97.5 | 98.5 | 99.4 | 98.5 |
| 130° | 90.1 | 90.1 | 88.3 | 88.3 | 88.3 | 86.4 | 88.3 | 86.4 | 87.3 | 88.3 | 89.2 |
| 132.5° | 79.9 | 79.9 | 77.1 | 76.2 | 76.2 | 76.2 | 77.1 | 76.2 | 78.0 | 79.9 | 79.9 |
| 135° | 71.5 | 71.5 | 68.7 | 69.7 | 69.7 | 68.7 | 69.7 | 68.7 | 70.6 | 71.5 | 71.5 |
| 137.5° | 65.0 | 65.0 | 63.2 | 63.2 | 63.2 | 62.2 | 63.2 | 63.2 | 64.1 | 66.0 | 66.9 |
| 140° | 59.5 | 59.5 | 58.5 | 58.5 | 57.6 | 58.5 | 58.5 | 58.5 | 59.5 | 60.4 | 60.4 |
| 142.5° | 56.7 | 55.7 | 54.8 | 53.9 | 54.8 | 54.8 | 54.8 | 53.9 | 54.8 | 56.7 | 56.7 |
| 145° | 52.0 | 52.0 | 51.1 | 51.1 | 51.1 | 52.0 | 51.1 | 51.1 | 52.0 | 52.0 | 53.0 |
| 147.5° | 49.2 | 49.2 | 48.3 | 49.2 | 49.2 | 49.2 | 49.2 | 48.3 | 49.2 | 49.2 | 50.2 |
| 150° | 48.3 | 47.4 | 46.5 | 47.4 | 47.4 | 46.5 | 46.5 | 46.5 | 46.5 | 47.4 | 47.4 |
| 152.5° | 45.5 | 45.5 | 44.6 | 45.5 | 44.6 | 44.6 | 44.6 | 44.6 | 44.6 | 45.5 | 46.5 |
| 155° | 43.7 | 43.7 | 42.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 |
| 157.5° | 41.8 | 42.7 | 41.8 | 41.8 | 41.8 | 41.8 | 41.8 | 41.8 | 41.8 | 42.7 | 42.7 |
| 160° | 40.9 | 40.9 | 40.9 | 40.9 | 39.9 | 39.9 | 39.9 | 40.9 | 40.9 | 40.9 | 41.8 |
| 162.5° | 39.9 | 39.9 | 39.9 | 39.9 | 39.0 | 39.0 | 39.0 | 39.0 | 39.9 | 39.9 | 40.9 |
| 165° | 39.9 | 39.0 | 39.0 | 39.0 | 38.1 | 38.1 | 38.1 | 38.1 | 39.0 | 39.9 | 39.0 |
| 167.5° | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 37.2 | 37.2 | 38.1 | 38.1 | 38.1 | 39.0 |
| 170° | 38.1 | 38.1 | 37.2 | 37.2 | 37.2 | 37.2 | 37.2 | 37.2 | 37.2 | 37.2 | 38.1 |
| 172.5° | 38.1 | 38.1 | 38.1 | 38.1 | 37.2 | 37.2 | 37.2 | 37.2 | 37.2 | 38.1 | 38.1 |
| 175° | 38.1 | 38.1 | 38.1 | 38.1 | 37.2 | 37.2 | 37.2 | 38.1 | 38.1 | 38.1 | 37.2 |
| 177.5° | 38.1 | 38.1 | 38.1 | 38.1 | 37.2 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 |
| 180° | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 |

(END OF REPORT)