

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: P195025

Luminaire Tested: **NVN-AF-01-LED-U-AFL-7060-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-01-LED-U-AFL-7060-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3379 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

Input Watts (W): 34
Input Voltage (V): NR
Input Current (A_{in}): 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

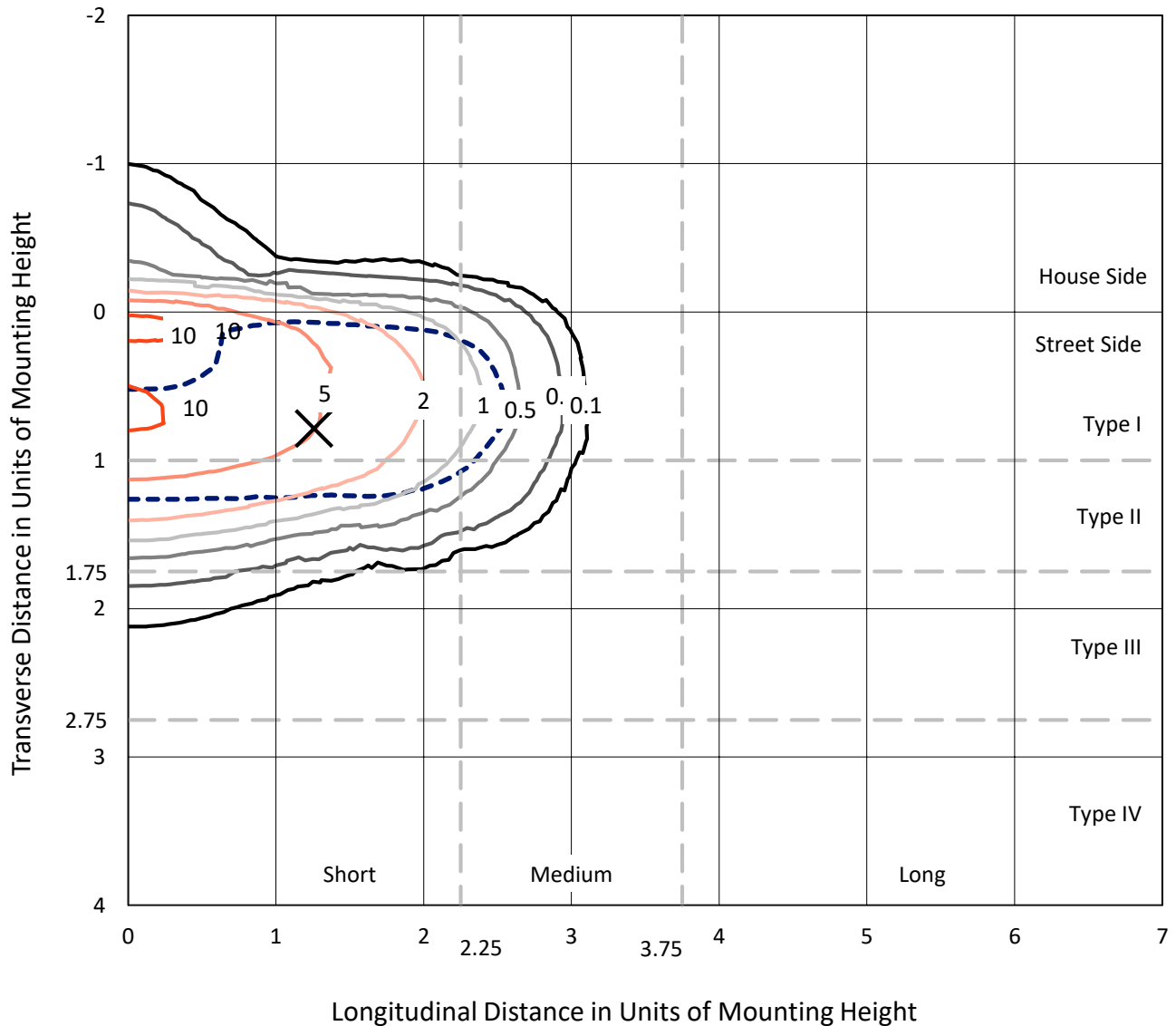


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

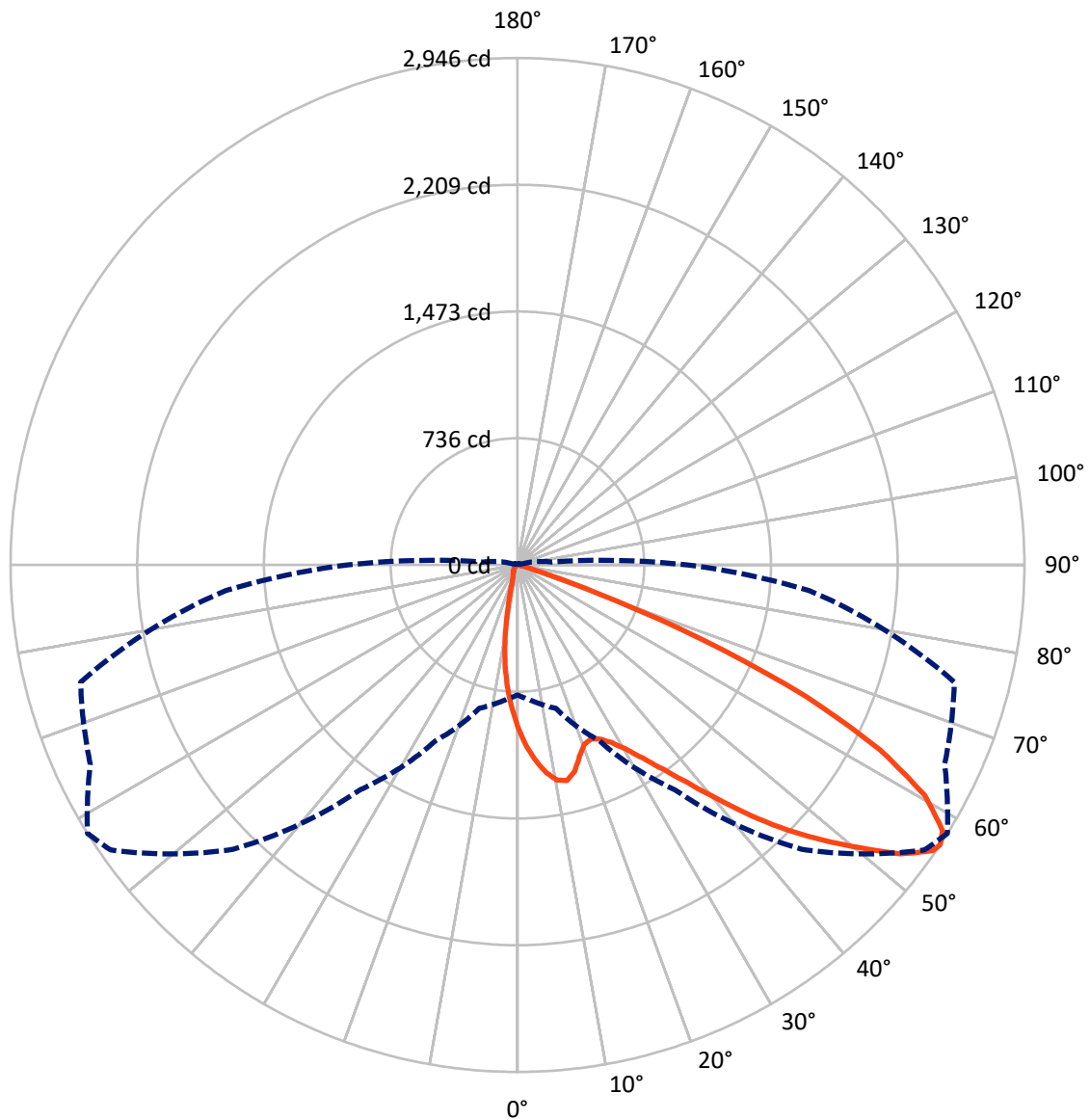


Based on 10 foot mounting height. Maximum calculated value = 11.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

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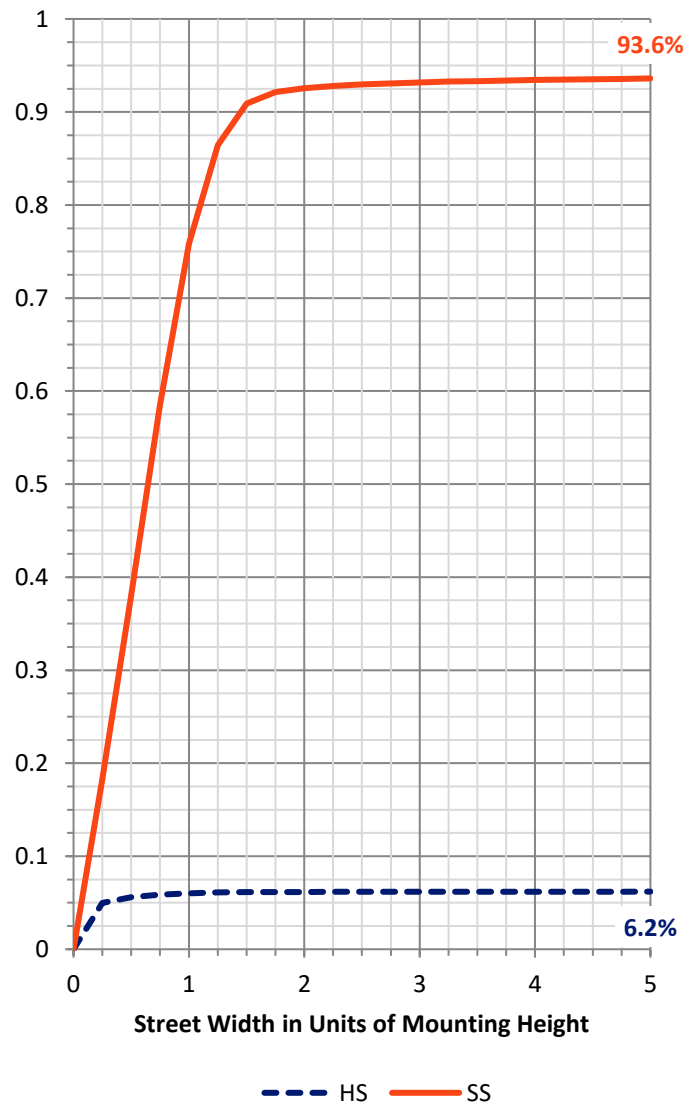
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 210.9 | 0.0 | 210.9 |
| | % Fixture | 6.2 | 0.0 | 6.2 |
| Street Side | Lumens | 3168.1 | 0.0 | 3168.1 |
| | % Fixture | 93.8 | 0.0 | 93.8 |
| Total | Lumens | 3379.0 | 0.0 | 3379.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 81.6 | 2.4 |
| 10°-20° | 189.9 | 5.6 |
| 20°-30° | 319.5 | 9.5 |
| 30°-40° | 547.2 | 16.2 |
| 40°-50° | 825.7 | 24.4 |
| 50°-60° | 858.3 | 25.4 |
| 60°-70° | 481.8 | 14.3 |
| 70°-80° | 66.0 | 2.0 |
| 80°-90° | 8.9 | 0.3 |
| 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° | 3379.0 | 100.0 |
| 0°-180° | 3379.0 | 100.0 |

Coefficient of Utilization



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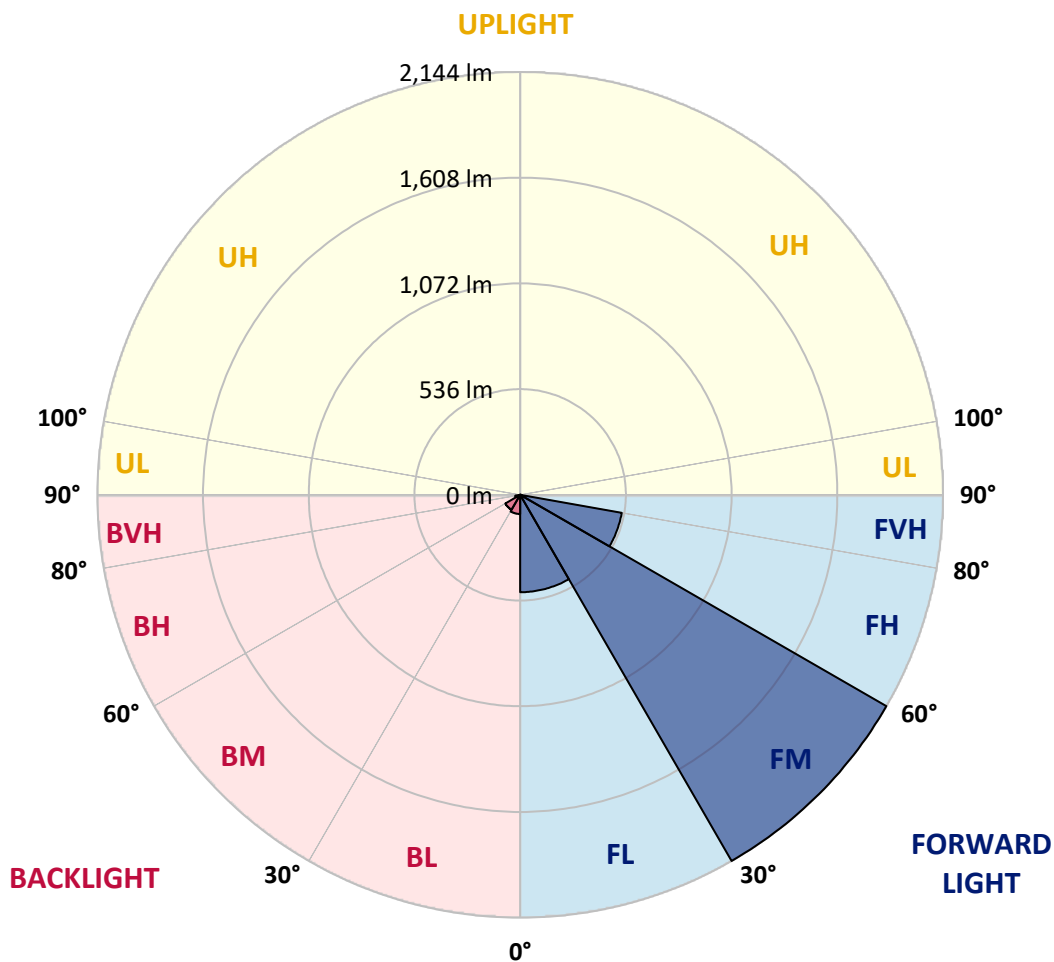
CATALOG NUMBER: NVN-AF-01-LED-U-AFL-7060-600-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 493.7 | 14.6 | | | |
| FM (30°-60°) | 2143.8 | 63.4 | | | |
| FH (60°-80°) | 522.8 | 15.5 | | | G0/660 |
| FVH (80°-90°) | 7.7 | 0.2 | | | G0/10 |
| BL (0°-30°) | 97.3 | 2.9 | B0/110 | | |
| BM (30°-60°) | 87.4 | 2.6 | B0/220 | | |
| BH (60°-80°) | 25.0 | 0.7 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.2 | 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-G0

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 |
| 2.5° | 1151.1 | 1144.1 | 1136.9 | 1123.5 | 1111.1 | 1092.0 | 1065.7 | 1059.3 | 1038.7 | 1004.6 | 972.9 |
| 5° | 1250.3 | 1249.0 | 1244.1 | 1233.3 | 1219.9 | 1196.7 | 1167.1 | 1147.2 | 1115.2 | 1061.6 | 1000.5 |
| 7.5° | 1191.6 | 1202.4 | 1220.2 | 1245.4 | 1262.4 | 1260.1 | 1237.4 | 1220.2 | 1188.5 | 1115.2 | 1027.6 |
| 10° | 1004.4 | 1006.5 | 1030.9 | 1084.1 | 1168.1 | 1246.5 | 1276.1 | 1271.5 | 1242.3 | 1162.2 | 1051.3 |
| 12.5° | 938.4 | 939.7 | 945.4 | 962.4 | 1017.0 | 1126.3 | 1260.6 | 1284.9 | 1282.6 | 1207.0 | 1076.6 |
| 15° | 943.5 | 944.3 | 945.9 | 951.3 | 966.8 | 1021.7 | 1182.3 | 1243.9 | 1308.3 | 1249.6 | 1101.3 |
| 17.5° | 984.3 | 983.8 | 978.9 | 973.7 | 978.6 | 996.7 | 1102.4 | 1167.3 | 1302.9 | 1285.4 | 1121.7 |
| 20° | 1063.7 | 1066.3 | 1049.8 | 1026.8 | 1015.0 | 1015.7 | 1062.9 | 1111.6 | 1272.5 | 1313.2 | 1136.9 |
| 22.5° | 1175.3 | 1177.1 | 1150.0 | 1110.3 | 1075.5 | 1058.0 | 1071.2 | 1096.9 | 1237.4 | 1339.0 | 1149.3 |
| 25° | 1308.6 | 1308.6 | 1270.7 | 1214.2 | 1160.4 | 1121.9 | 1110.6 | 1120.4 | 1224.0 | 1368.1 | 1161.6 |
| 27.5° | 1452.4 | 1457.6 | 1408.1 | 1334.1 | 1263.0 | 1206.8 | 1171.2 | 1169.4 | 1234.3 | 1404.8 | 1175.6 |
| 30° | 1608.9 | 1613.6 | 1554.8 | 1464.3 | 1380.0 | 1308.1 | 1253.4 | 1241.6 | 1273.8 | 1454.0 | 1195.9 |
| 32.5° | 1764.6 | 1768.5 | 1703.5 | 1611.3 | 1513.0 | 1428.5 | 1356.5 | 1337.7 | 1344.7 | 1525.9 | 1225.8 |
| 35° | 1962.6 | 1963.4 | 1881.2 | 1771.3 | 1666.4 | 1567.2 | 1476.2 | 1457.6 | 1449.9 | 1616.7 | 1268.9 |
| 37.5° | 2120.2 | 2114.0 | 2061.9 | 1958.0 | 1837.6 | 1734.0 | 1627.0 | 1602.7 | 1584.2 | 1744.3 | 1335.7 |
| 40° | 2157.3 | 2157.3 | 2149.5 | 2118.3 | 2022.7 | 1922.9 | 1819.3 | 1783.2 | 1742.2 | 1894.6 | 1425.4 |
| 42.5° | 2060.6 | 2066.8 | 2117.8 | 2185.6 | 2186.4 | 2122.5 | 2021.2 | 1990.7 | 1918.6 | 2065.8 | 1523.3 |
| 45° | 1844.3 | 1846.1 | 1968.6 | 2151.6 | 2275.9 | 2312.5 | 2237.7 | 2195.7 | 2095.7 | 2243.6 | 1613.1 |
| 47.5° | 1766.4 | 1772.1 | 1824.2 | 2048.0 | 2282.6 | 2466.4 | 2445.5 | 2387.7 | 2259.6 | 2406.1 | 1696.8 |
| 50° | 1646.8 | 1653.8 | 1717.5 | 1895.3 | 2222.2 | 2565.1 | 2644.3 | 2582.4 | 2408.9 | 2541.4 | 1738.3 |
| 52.5° | 1360.7 | 1371.5 | 1461.5 | 1693.5 | 2071.4 | 2569.2 | 2826.3 | 2789.1 | 2561.8 | 2613.8 | 1733.4 |
| 55° | 936.3 | 944.3 | 1049.2 | 1322.0 | 1767.2 | 2443.2 | 2904.6 | 2930.2 | 2698.1 | 2630.1 | 1709.7 |
| 56° | 755.4 | 785.3 | 862.1 | 1126.3 | 1594.0 | 2335.9 | 2886.6 | 2945.6 | 2738.6 | 2627.5 | 1699.4 |
| 57.5° | 499.4 | 505.0 | 588.8 | 816.2 | 1280.0 | 2103.1 | 2805.1 | 2912.6 | 2790.7 | 2614.4 | 1691.9 |
| 60° | 234.9 | 237.4 | 267.6 | 376.6 | 692.7 | 1532.6 | 2540.4 | 2718.8 | 2809.8 | 2586.8 | 1691.7 |
| 62.5° | 153.1 | 153.6 | 157.3 | 179.7 | 283.3 | 834.8 | 2106.0 | 2362.7 | 2651.7 | 2583.7 | 1686.8 |
| 65° | 126.1 | 127.4 | 123.0 | 125.8 | 148.2 | 314.8 | 1485.4 | 1842.0 | 2280.8 | 2511.0 | 1631.6 |
| 67.5° | 111.1 | 111.4 | 105.4 | 102.1 | 108.5 | 138.2 | 748.4 | 1161.9 | 1705.9 | 2133.6 | 1343.9 |
| 70° | 101.3 | 101.1 | 94.4 | 86.6 | 86.9 | 91.8 | 243.9 | 482.6 | 943.8 | 1266.8 | 771.6 |
| 72.5° | 90.0 | 90.5 | 86.6 | 75.8 | 72.2 | 65.0 | 91.8 | 130.2 | 321.2 | 406.8 | 203.4 |
| 75° | 78.9 | 77.9 | 74.0 | 67.0 | 60.3 | 43.6 | 46.1 | 55.4 | 83.8 | 83.0 | 43.8 |
| 77.5° | 59.8 | 58.8 | 60.6 | 57.2 | 47.2 | 30.4 | 25.3 | 28.9 | 37.9 | 35.3 | 17.8 |
| 80° | 45.6 | 45.1 | 41.2 | 49.0 | 43.1 | 22.9 | 17.3 | 17.8 | 20.6 | 18.8 | 8.8 |
| 82.5° | 33.0 | 32.7 | 31.2 | 30.2 | 27.3 | 16.8 | 13.1 | 13.9 | 15.5 | 13.1 | 6.4 |
| 85° | 12.6 | 12.6 | 24.5 | 20.6 | 18.8 | 11.3 | 9.3 | 10.1 | 11.9 | 9.5 | 4.4 |
| 87.5° | 2.1 | 2.1 | 16.5 | 13.7 | 8.5 | 5.7 | 5.9 | 6.4 | 7.0 | 5.7 | 3.4 |
| 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° | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 | 956.7 |
| 2.5° | 954.1 | 936.8 | 898.9 | 862.3 | 830.4 | 795.3 | 777.5 | 756.9 | 749.2 | 733.7 | 735.2 |
| 5° | 963.9 | 927.8 | 851.8 | 771.6 | 698.1 | 623.4 | 570.3 | 520.2 | 492.4 | 464.8 | 464.8 |
| 7.5° | 974.0 | 918.8 | 801.2 | 673.1 | 549.4 | 421.2 | 330.5 | 257.8 | 217.3 | 190.3 | 189.5 |
| 10° | 980.9 | 907.2 | 743.8 | 558.9 | 376.4 | 217.1 | 131.0 | 103.1 | 93.1 | 88.7 | 88.4 |
| 12.5° | 990.0 | 895.6 | 678.3 | 424.3 | 209.1 | 103.1 | 81.7 | 77.3 | 75.5 | 74.5 | 74.5 |
| 15° | 997.7 | 879.1 | 598.9 | 285.4 | 109.8 | 77.3 | 70.4 | 68.8 | 68.6 | 68.3 | 68.6 |
| 17.5° | 999.5 | 855.6 | 503.7 | 167.1 | 79.7 | 67.5 | 64.5 | 63.2 | 63.2 | 62.9 | 62.9 |
| 20° | 995.4 | 824.7 | 398.6 | 103.1 | 68.8 | 62.1 | 58.8 | 57.2 | 57.0 | 57.0 | 57.0 |
| 22.5° | 986.9 | 785.3 | 294.7 | 78.1 | 62.6 | 57.2 | 52.8 | 51.3 | 51.3 | 51.6 | 51.8 |
| 25° | 976.3 | 738.6 | 202.4 | 67.3 | 58.0 | 52.1 | 47.7 | 46.1 | 46.7 | 47.2 | 47.4 |
| 27.5° | 962.9 | 682.9 | 132.5 | 58.3 | 51.8 | 46.9 | 43.1 | 42.0 | 43.1 | 44.1 | 44.6 |
| 30° | 949.5 | 621.8 | 89.7 | 50.5 | 44.9 | 41.2 | 38.9 | 38.7 | 40.2 | 42.5 | 42.8 |
| 32.5° | 940.7 | 559.2 | 67.8 | 45.4 | 39.4 | 36.3 | 35.3 | 35.8 | 38.2 | 40.7 | 41.2 |
| 35° | 939.9 | 498.1 | 57.7 | 41.2 | 35.8 | 33.0 | 32.5 | 34.0 | 36.6 | 38.7 | 39.2 |
| 37.5° | 952.1 | 440.8 | 52.3 | 38.2 | 33.0 | 30.2 | 29.4 | 32.2 | 34.5 | 36.6 | 37.1 |
| 40° | 976.5 | 389.5 | 48.7 | 35.3 | 30.7 | 27.3 | 26.8 | 29.1 | 31.5 | 33.8 | 34.5 |
| 42.5° | 1007.2 | 341.6 | 44.6 | 32.5 | 28.1 | 24.2 | 23.7 | 25.5 | 27.8 | 31.2 | 31.7 |
| 45° | 1033.8 | 297.0 | 40.2 | 29.4 | 25.3 | 20.9 | 20.6 | 22.7 | 24.5 | 27.6 | 28.1 |
| 47.5° | 1056.2 | 259.9 | 36.1 | 26.0 | 21.7 | 18.6 | 18.3 | 19.3 | 20.4 | 23.2 | 23.7 |
| 50° | 1044.3 | 228.4 | 32.0 | 21.4 | 17.5 | 16.0 | 15.7 | 15.7 | 17.0 | 19.9 | 20.4 |
| 52.5° | 1015.2 | 208.8 | 28.1 | 17.8 | 14.4 | 13.7 | 12.9 | 13.1 | 14.4 | 15.7 | 16.0 |
| 55° | 991.8 | 199.5 | 24.7 | 15.7 | 12.1 | 11.3 | 10.6 | 10.3 | 10.6 | 10.1 | 9.5 |
| 56° | 986.1 | 198.5 | 24.0 | 15.2 | 11.6 | 10.6 | 9.5 | 9.0 | 8.8 | 7.7 | 7.5 |
| 57.5° | 983.5 | 198.5 | 22.7 | 14.2 | 10.8 | 9.5 | 8.2 | 7.2 | 6.2 | 5.4 | 5.4 |
| 60° | 981.4 | 199.8 | 21.1 | 12.4 | 9.3 | 7.7 | 5.9 | 4.4 | 3.6 | 3.6 | 3.6 |
| 62.5° | 977.1 | 199.3 | 19.3 | 10.3 | 8.0 | 5.9 | 3.6 | 2.8 | 2.6 | 2.8 | 3.1 |
| 65° | 927.8 | 185.1 | 17.0 | 8.2 | 6.2 | 4.1 | 2.1 | 2.1 | 2.3 | 2.8 | 3.1 |
| 67.5° | 747.6 | 140.2 | 13.9 | 6.4 | 4.4 | 3.1 | 1.8 | 1.8 | 2.3 | 2.8 | 3.1 |
| 70° | 410.7 | 74.0 | 11.9 | 4.6 | 3.4 | 2.6 | 1.8 | 1.5 | 2.3 | 2.8 | 3.1 |
| 72.5° | 100.3 | 30.9 | 10.8 | 3.6 | 3.1 | 2.3 | 1.5 | 1.5 | 2.3 | 2.8 | 3.1 |
| 75° | 24.7 | 23.2 | 8.8 | 2.8 | 2.6 | 2.1 | 1.5 | 1.5 | 2.3 | 2.8 | 3.1 |
| 77.5° | 11.6 | 30.7 | 5.9 | 2.6 | 2.3 | 1.8 | 1.5 | 1.5 | 2.3 | 2.8 | 2.8 |
| 80° | 7.0 | 23.2 | 3.6 | 2.3 | 2.1 | 1.8 | 1.5 | 1.5 | 2.3 | 2.8 | 3.1 |
| 82.5° | 4.1 | 6.7 | 2.6 | 2.3 | 2.1 | 1.5 | 1.5 | 1.5 | 2.3 | 2.8 | 3.1 |
| 85° | 3.6 | 3.4 | 2.6 | 2.3 | 2.1 | 1.8 | 1.5 | 1.5 | 2.6 | 3.1 | 3.1 |
| 87.5° | 2.8 | 2.6 | 2.3 | 2.1 | 2.1 | 1.8 | 1.5 | 1.5 | 2.3 | 2.8 | 3.1 |
| 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)