

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: P196951

Luminaire Tested: **NVN-AF-01-LED-U-AFL-8030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196951
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-8030-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 800mA 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: 3381 lumens
Efficiency: N/A
Efficacy: 76.8 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): 44
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

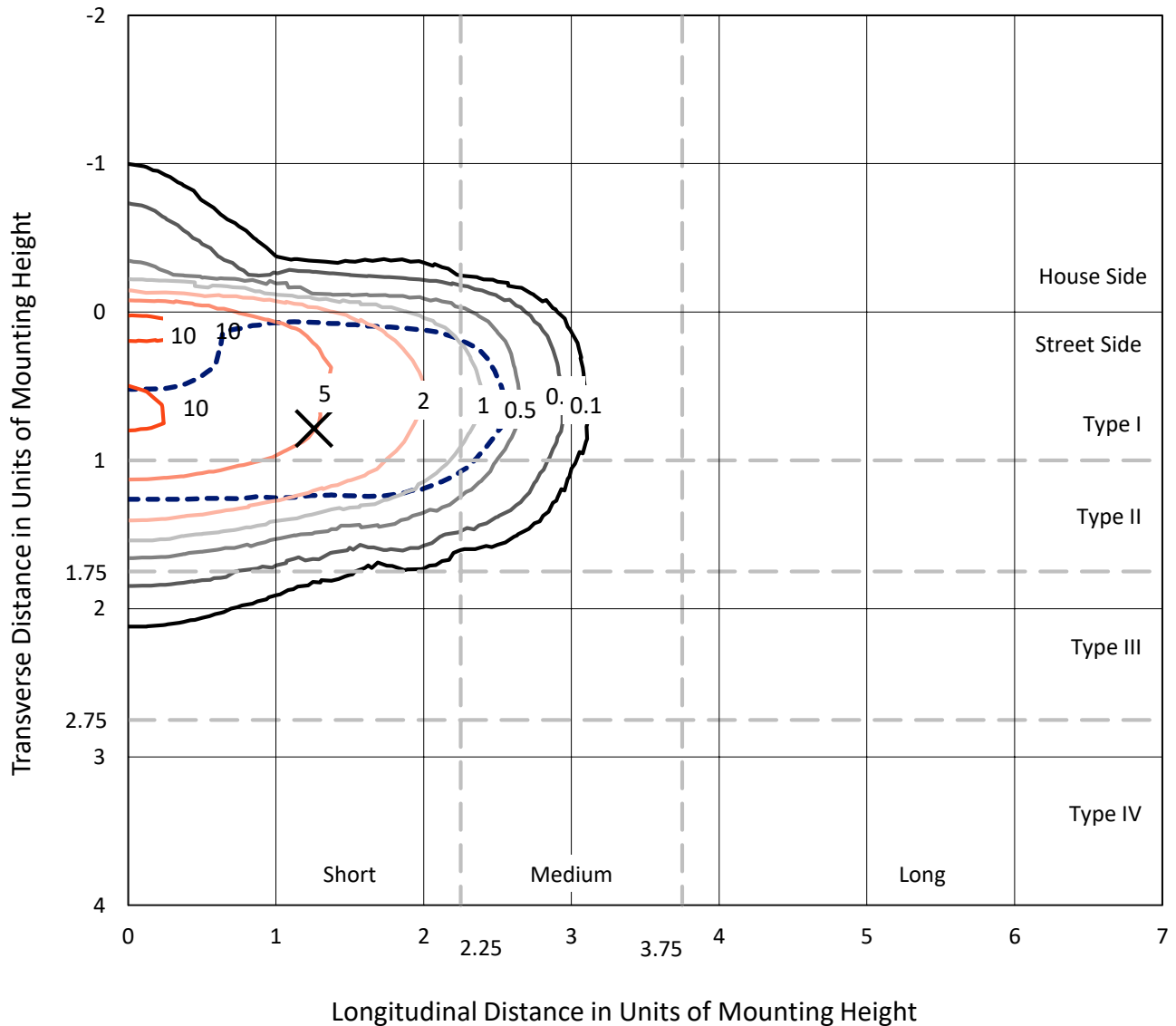


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

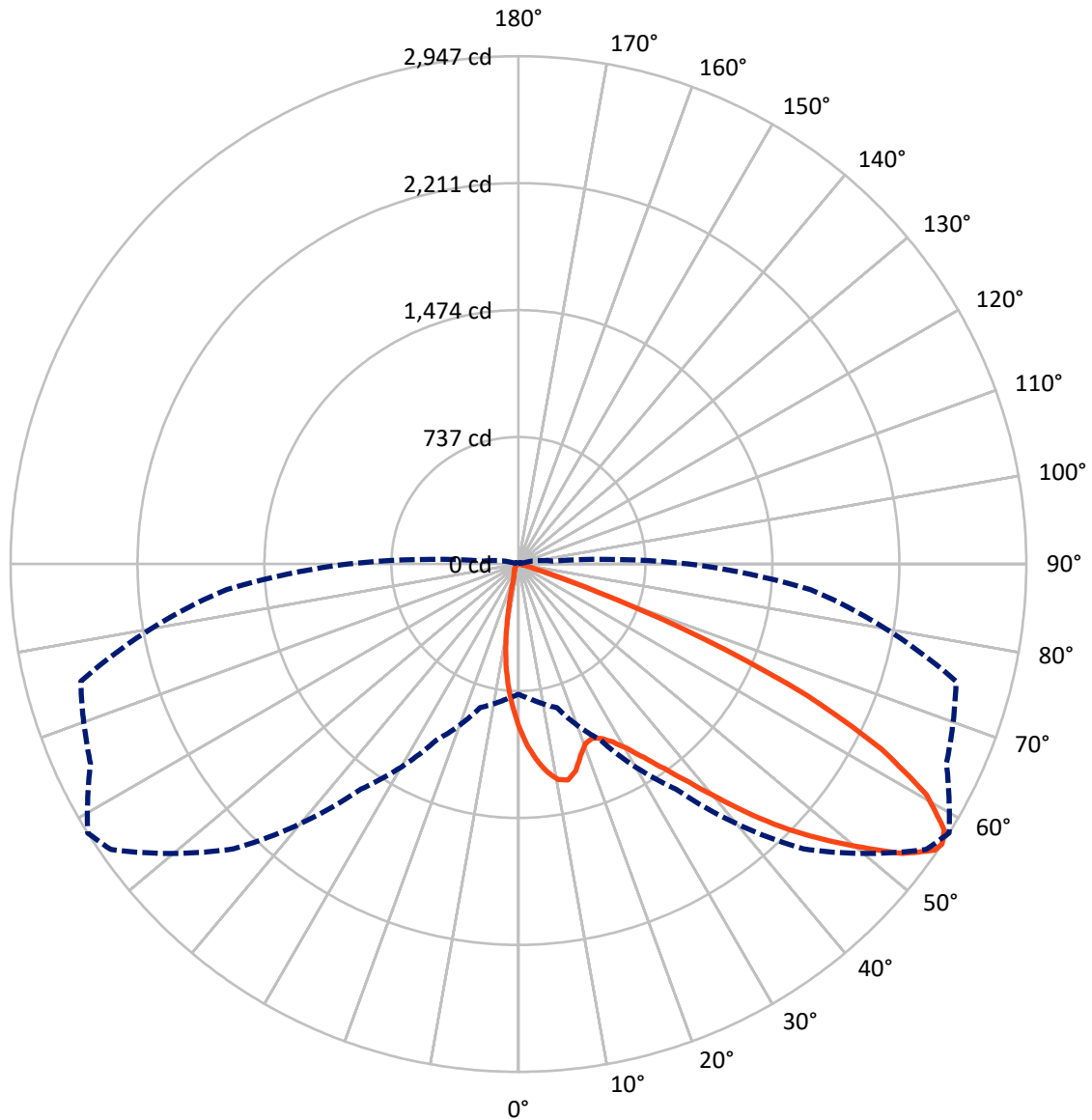


Based on 10 foot mounting height. Maximum calculated value = 11.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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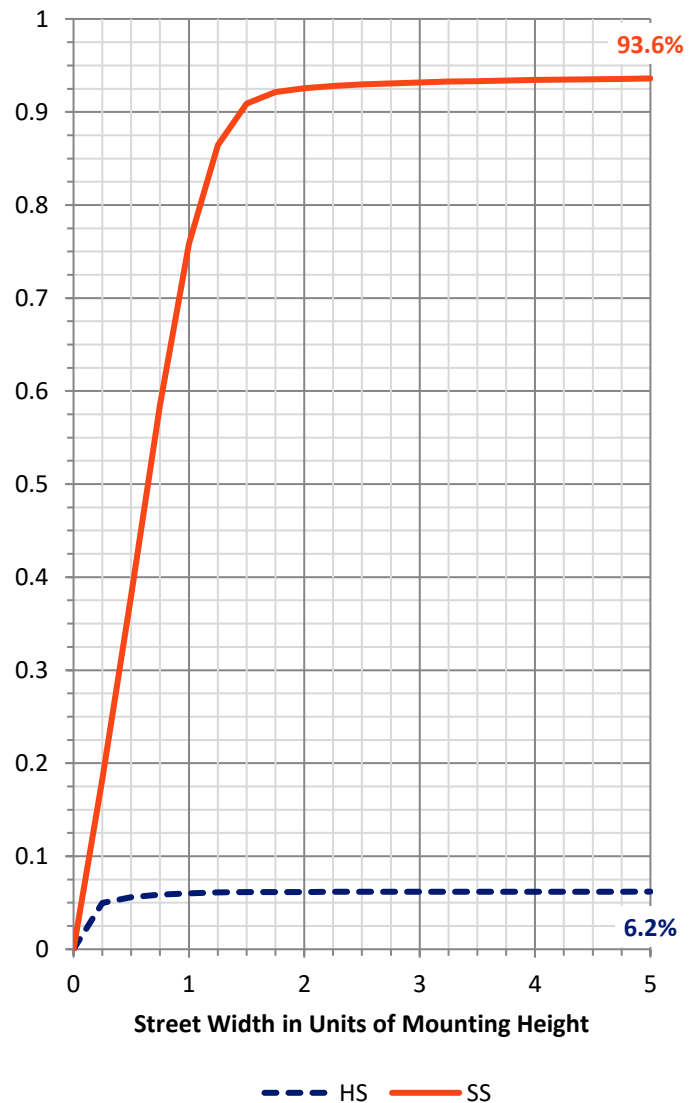
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 211.0 | 0.0 | 211.0 |
| | % Fixture | 6.2 | 0.0 | 6.2 |
| Street Side | Lumens | 3170.0 | 0.0 | 3170.0 |
| | % Fixture | 93.8 | 0.0 | 93.8 |
| Total | Lumens | 3381.0 | 0.0 | 3381.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 81.7 | 2.4 |
| 10°-20° | 190.0 | 5.6 |
| 20°-30° | 319.7 | 9.5 |
| 30°-40° | 547.5 | 16.2 |
| 40°-50° | 826.2 | 24.4 |
| 50°-60° | 858.8 | 25.4 |
| 60°-70° | 482.1 | 14.3 |
| 70°-80° | 66.1 | 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° | 3381.0 | 100.0 |
| 0°-180° | 3381.0 | 100.0 |

Coefficient of Utilization



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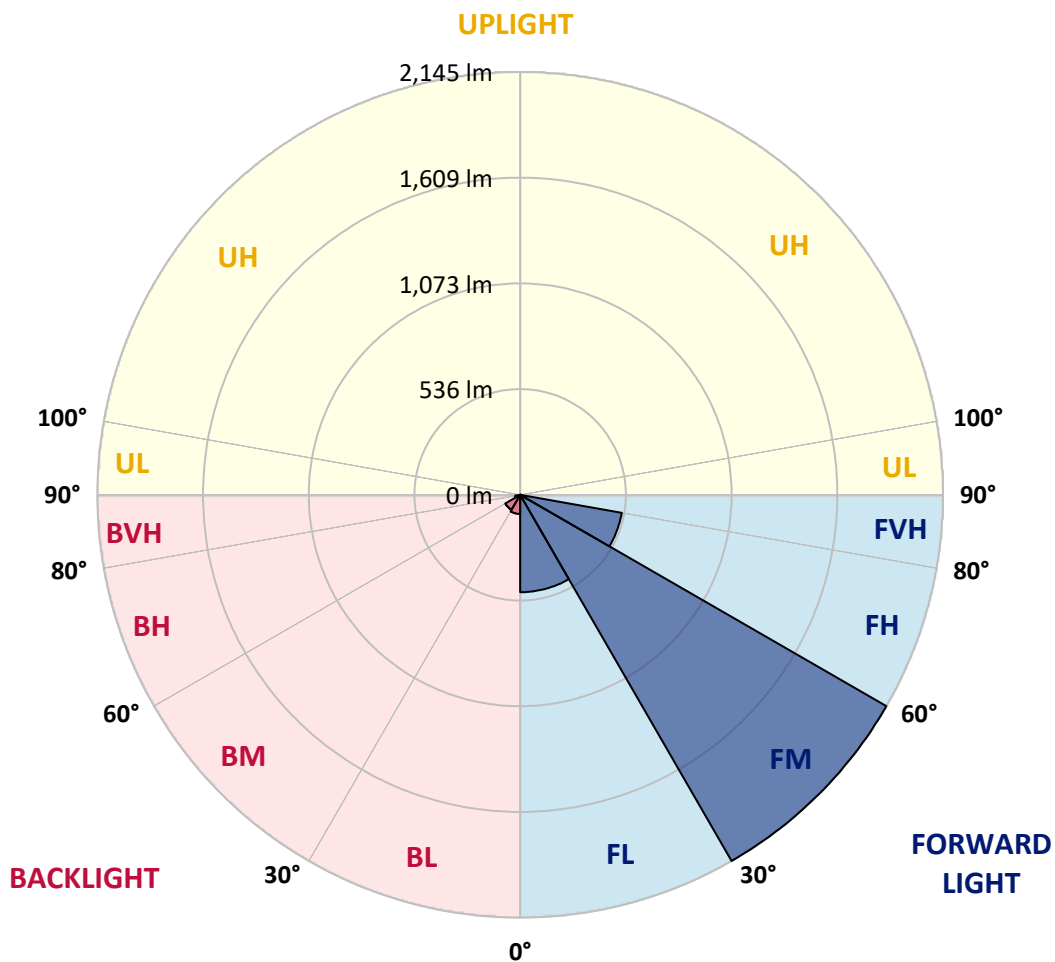
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 494.0 | 14.6 | | | |
| FM | (30°-60°) | 2145.0 | 63.4 | | | |
| FH | (60°-80°) | 523.2 | 15.5 | | | G0/660 |
| FVH | (80°-90°) | 7.7 | 0.2 | | | G0/10 |
| BL | (0°-30°) | 97.4 | 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° | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 |
| 2.5° | 1151.8 | 1144.8 | 1137.6 | 1124.2 | 1111.8 | 1092.7 | 1066.4 | 1059.9 | 1039.3 | 1005.2 | 973.5 |
| 5° | 1251.1 | 1249.8 | 1244.9 | 1234.0 | 1220.6 | 1197.4 | 1167.8 | 1147.9 | 1115.9 | 1062.3 | 1001.1 |
| 7.5° | 1192.3 | 1203.1 | 1220.9 | 1246.2 | 1263.2 | 1260.9 | 1238.2 | 1220.9 | 1189.2 | 1115.9 | 1028.2 |
| 10° | 1005.0 | 1007.0 | 1031.6 | 1084.7 | 1168.8 | 1247.2 | 1276.9 | 1272.2 | 1243.1 | 1162.9 | 1051.9 |
| 12.5° | 938.9 | 940.2 | 945.9 | 962.9 | 1017.6 | 1127.0 | 1261.4 | 1285.6 | 1283.3 | 1207.7 | 1077.2 |
| 15° | 944.1 | 944.9 | 946.4 | 951.8 | 967.3 | 1022.3 | 1183.0 | 1244.6 | 1309.1 | 1250.3 | 1102.0 |
| 17.5° | 984.9 | 984.3 | 979.4 | 974.3 | 979.2 | 997.2 | 1103.0 | 1168.0 | 1303.7 | 1286.2 | 1122.4 |
| 20° | 1064.3 | 1066.9 | 1050.4 | 1027.4 | 1015.6 | 1016.3 | 1063.5 | 1112.3 | 1273.3 | 1314.0 | 1137.6 |
| 22.5° | 1176.0 | 1177.8 | 1150.7 | 1111.0 | 1076.2 | 1058.6 | 1071.8 | 1097.6 | 1238.2 | 1339.8 | 1150.0 |
| 25° | 1309.4 | 1309.4 | 1271.5 | 1215.0 | 1161.0 | 1122.6 | 1111.3 | 1121.1 | 1224.8 | 1369.0 | 1162.3 |
| 27.5° | 1453.3 | 1458.5 | 1408.9 | 1334.9 | 1263.7 | 1207.5 | 1171.9 | 1170.1 | 1235.1 | 1405.6 | 1176.3 |
| 30° | 1609.9 | 1614.5 | 1555.7 | 1465.2 | 1380.8 | 1308.9 | 1254.2 | 1242.3 | 1274.5 | 1454.9 | 1196.6 |
| 32.5° | 1765.7 | 1769.6 | 1704.6 | 1612.2 | 1513.9 | 1429.3 | 1357.3 | 1338.5 | 1345.5 | 1526.8 | 1226.6 |
| 35° | 1963.8 | 1964.6 | 1882.3 | 1772.4 | 1667.4 | 1568.1 | 1477.0 | 1458.5 | 1450.7 | 1617.6 | 1269.6 |
| 37.5° | 2121.4 | 2115.2 | 2063.1 | 1959.2 | 1838.7 | 1735.0 | 1627.9 | 1603.7 | 1585.1 | 1745.3 | 1336.5 |
| 40° | 2158.6 | 2158.6 | 2150.8 | 2119.6 | 2023.9 | 1924.1 | 1820.4 | 1784.3 | 1743.2 | 1895.7 | 1426.2 |
| 42.5° | 2061.8 | 2068.0 | 2119.1 | 2186.9 | 2187.7 | 2123.7 | 2022.4 | 1991.9 | 1919.7 | 2067.0 | 1524.2 |
| 45° | 1845.4 | 1847.2 | 1969.7 | 2152.9 | 2277.2 | 2313.8 | 2239.0 | 2197.0 | 2096.9 | 2245.0 | 1614.0 |
| 47.5° | 1767.5 | 1773.2 | 1825.3 | 2049.2 | 2283.9 | 2467.8 | 2446.9 | 2389.2 | 2261.0 | 2407.5 | 1697.8 |
| 50° | 1647.8 | 1654.8 | 1718.5 | 1896.5 | 2223.6 | 2566.6 | 2645.8 | 2583.9 | 2410.3 | 2542.9 | 1739.4 |
| 52.5° | 1361.5 | 1372.3 | 1462.3 | 1694.5 | 2072.7 | 2570.8 | 2827.9 | 2790.8 | 2563.3 | 2615.4 | 1734.5 |
| 55° | 936.9 | 944.9 | 1049.9 | 1322.8 | 1768.3 | 2444.6 | 2906.4 | 2931.9 | 2699.7 | 2631.6 | 1710.7 |
| 56° | 755.8 | 785.7 | 862.6 | 1127.0 | 1594.9 | 2337.3 | 2888.3 | 2947.4 | 2740.2 | 2629.1 | 1700.4 |
| 57.5° | 499.7 | 505.3 | 589.2 | 816.7 | 1280.7 | 2104.4 | 2806.8 | 2914.4 | 2792.3 | 2615.9 | 1692.9 |
| 60° | 235.0 | 237.6 | 267.8 | 376.9 | 693.1 | 1533.5 | 2541.9 | 2720.4 | 2811.4 | 2588.3 | 1692.7 |
| 62.5° | 153.2 | 153.7 | 157.4 | 179.8 | 283.5 | 835.3 | 2107.2 | 2364.1 | 2653.3 | 2585.2 | 1687.8 |
| 65° | 126.1 | 127.4 | 123.0 | 125.9 | 148.3 | 315.0 | 1486.3 | 1843.1 | 2282.1 | 2512.5 | 1632.6 |
| 67.5° | 111.2 | 111.4 | 105.5 | 102.1 | 108.6 | 138.3 | 748.8 | 1162.6 | 1706.9 | 2134.8 | 1344.7 |
| 70° | 101.4 | 101.1 | 94.4 | 86.7 | 86.9 | 91.8 | 244.0 | 482.9 | 944.4 | 1267.6 | 772.1 |
| 72.5° | 90.0 | 90.5 | 86.7 | 75.8 | 72.2 | 65.0 | 91.8 | 130.3 | 321.4 | 407.0 | 203.5 |
| 75° | 78.9 | 77.9 | 74.0 | 67.1 | 60.4 | 43.6 | 46.2 | 55.5 | 83.8 | 83.1 | 43.9 |
| 77.5° | 59.8 | 58.8 | 60.6 | 57.3 | 47.2 | 30.4 | 25.3 | 28.9 | 37.9 | 35.3 | 17.8 |
| 80° | 45.7 | 45.1 | 41.3 | 49.0 | 43.1 | 23.0 | 17.3 | 17.8 | 20.6 | 18.8 | 8.8 |
| 82.5° | 33.0 | 32.8 | 31.2 | 30.2 | 27.3 | 16.8 | 13.2 | 13.9 | 15.5 | 13.2 | 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° | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 | 957.3 |
| 2.5° | 954.7 | 937.4 | 899.5 | 862.9 | 830.9 | 795.8 | 778.0 | 757.3 | 749.6 | 734.1 | 735.7 |
| 5° | 964.5 | 928.4 | 852.3 | 772.1 | 698.5 | 623.7 | 570.6 | 520.5 | 492.7 | 465.1 | 465.1 |
| 7.5° | 974.5 | 919.3 | 801.7 | 673.5 | 549.7 | 421.5 | 330.7 | 258.0 | 217.5 | 190.4 | 189.6 |
| 10° | 981.5 | 907.7 | 744.2 | 559.2 | 376.6 | 217.2 | 131.0 | 103.2 | 93.1 | 88.7 | 88.5 |
| 12.5° | 990.5 | 896.1 | 678.7 | 424.6 | 209.2 | 103.2 | 81.8 | 77.4 | 75.6 | 74.5 | 74.5 |
| 15° | 998.3 | 879.6 | 599.2 | 285.6 | 109.9 | 77.4 | 70.4 | 68.9 | 68.6 | 68.4 | 68.6 |
| 17.5° | 1000.1 | 856.1 | 504.0 | 167.2 | 79.7 | 67.6 | 64.5 | 63.2 | 63.2 | 62.9 | 62.9 |
| 20° | 996.0 | 825.2 | 398.8 | 103.2 | 68.9 | 62.2 | 58.8 | 57.3 | 57.0 | 57.0 | 57.0 |
| 22.5° | 987.4 | 785.7 | 294.8 | 78.2 | 62.7 | 57.3 | 52.9 | 51.3 | 51.3 | 51.6 | 51.8 |
| 25° | 976.9 | 739.0 | 202.5 | 67.3 | 58.0 | 52.1 | 47.7 | 46.2 | 46.7 | 47.2 | 47.5 |
| 27.5° | 963.5 | 683.3 | 132.6 | 58.3 | 51.8 | 46.9 | 43.1 | 42.0 | 43.1 | 44.1 | 44.6 |
| 30° | 950.0 | 622.2 | 89.8 | 50.6 | 44.9 | 41.3 | 39.0 | 38.7 | 40.2 | 42.6 | 42.8 |
| 32.5° | 941.3 | 559.5 | 67.8 | 45.4 | 39.5 | 36.4 | 35.3 | 35.9 | 38.2 | 40.8 | 41.3 |
| 35° | 940.5 | 498.4 | 57.8 | 41.3 | 35.9 | 33.0 | 32.5 | 34.0 | 36.6 | 38.7 | 39.2 |
| 37.5° | 952.6 | 441.1 | 52.4 | 38.2 | 33.0 | 30.2 | 29.4 | 32.2 | 34.6 | 36.6 | 37.1 |
| 40° | 977.1 | 389.8 | 48.8 | 35.3 | 30.7 | 27.3 | 26.8 | 29.1 | 31.5 | 33.8 | 34.6 |
| 42.5° | 1007.8 | 341.8 | 44.6 | 32.5 | 28.1 | 24.2 | 23.7 | 25.5 | 27.9 | 31.2 | 31.7 |
| 45° | 1034.4 | 297.2 | 40.2 | 29.4 | 25.3 | 20.9 | 20.6 | 22.7 | 24.5 | 27.6 | 28.1 |
| 47.5° | 1056.8 | 260.0 | 36.1 | 26.1 | 21.7 | 18.6 | 18.3 | 19.3 | 20.4 | 23.2 | 23.7 |
| 50° | 1045.0 | 228.5 | 32.0 | 21.4 | 17.5 | 16.0 | 15.7 | 15.7 | 17.0 | 19.9 | 20.4 |
| 52.5° | 1015.8 | 208.9 | 28.1 | 17.8 | 14.4 | 13.7 | 12.9 | 13.2 | 14.4 | 15.7 | 16.0 |
| 55° | 992.3 | 199.7 | 24.8 | 15.7 | 12.1 | 11.3 | 10.6 | 10.3 | 10.6 | 10.1 | 9.5 |
| 56° | 986.7 | 198.6 | 24.0 | 15.2 | 11.6 | 10.6 | 9.5 | 9.0 | 8.8 | 7.7 | 7.5 |
| 57.5° | 984.1 | 198.6 | 22.7 | 14.2 | 10.8 | 9.5 | 8.3 | 7.2 | 6.2 | 5.4 | 5.4 |
| 60° | 982.0 | 199.9 | 21.2 | 12.4 | 9.3 | 7.7 | 5.9 | 4.4 | 3.6 | 3.6 | 3.6 |
| 62.5° | 977.6 | 199.4 | 19.3 | 10.3 | 8.0 | 5.9 | 3.6 | 2.8 | 2.6 | 2.8 | 3.1 |
| 65° | 928.4 | 185.2 | 17.0 | 8.3 | 6.2 | 4.1 | 2.1 | 2.1 | 2.3 | 2.8 | 3.1 |
| 67.5° | 748.1 | 140.3 | 13.9 | 6.4 | 4.4 | 3.1 | 1.8 | 1.8 | 2.3 | 2.8 | 3.1 |
| 70° | 410.9 | 74.0 | 11.9 | 4.6 | 3.4 | 2.6 | 1.8 | 1.5 | 2.3 | 2.8 | 3.1 |
| 72.5° | 100.3 | 31.0 | 10.8 | 3.6 | 3.1 | 2.3 | 1.5 | 1.5 | 2.3 | 2.8 | 3.1 |
| 75° | 24.8 | 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)