

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: P960328

Luminaire Tested: **NAV-SB1C-730-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1C-730-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE III ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7883.3 lumens
Efficiency: N/A
Efficacy: 144.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

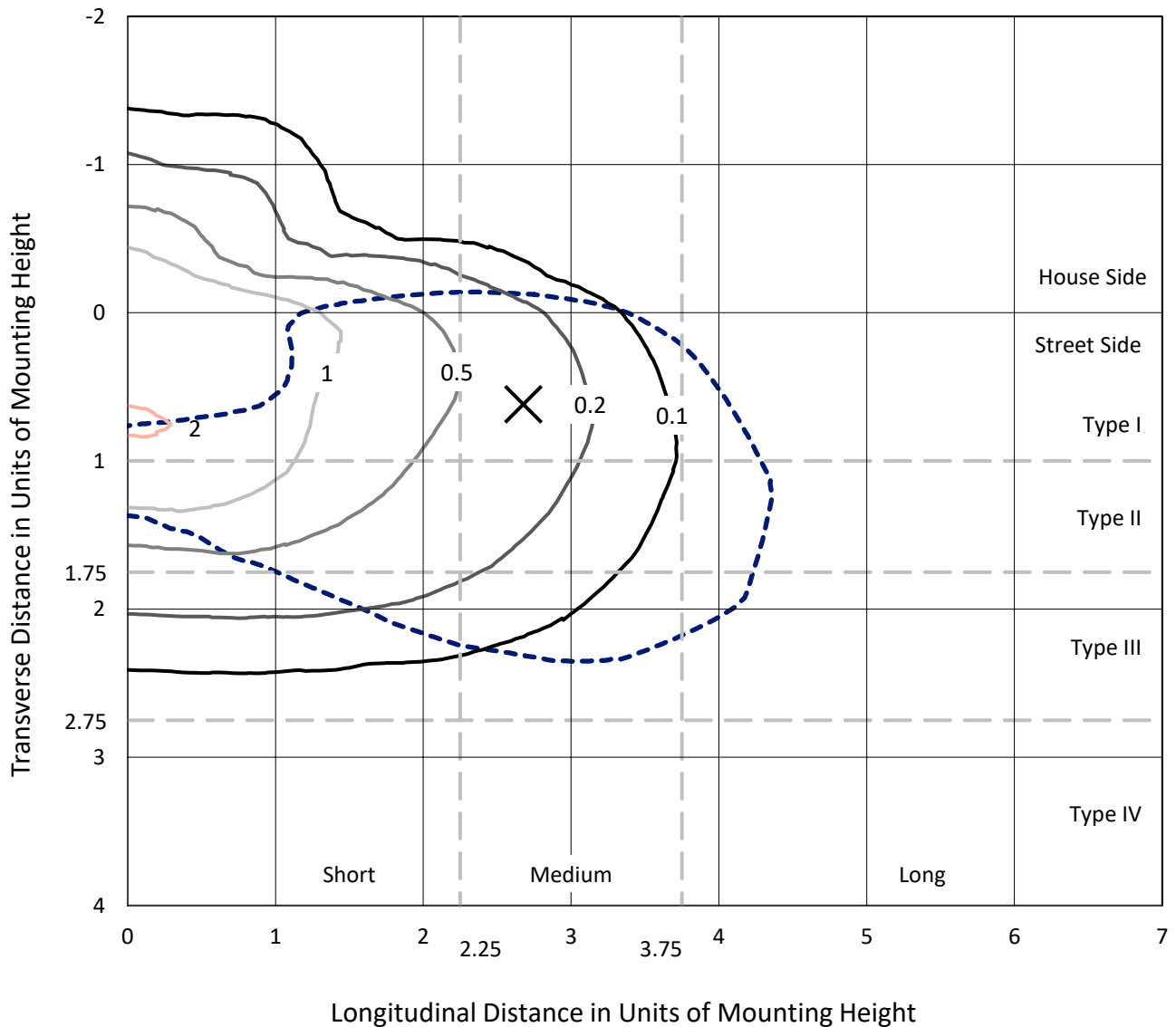
Input Watts (W): 54.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

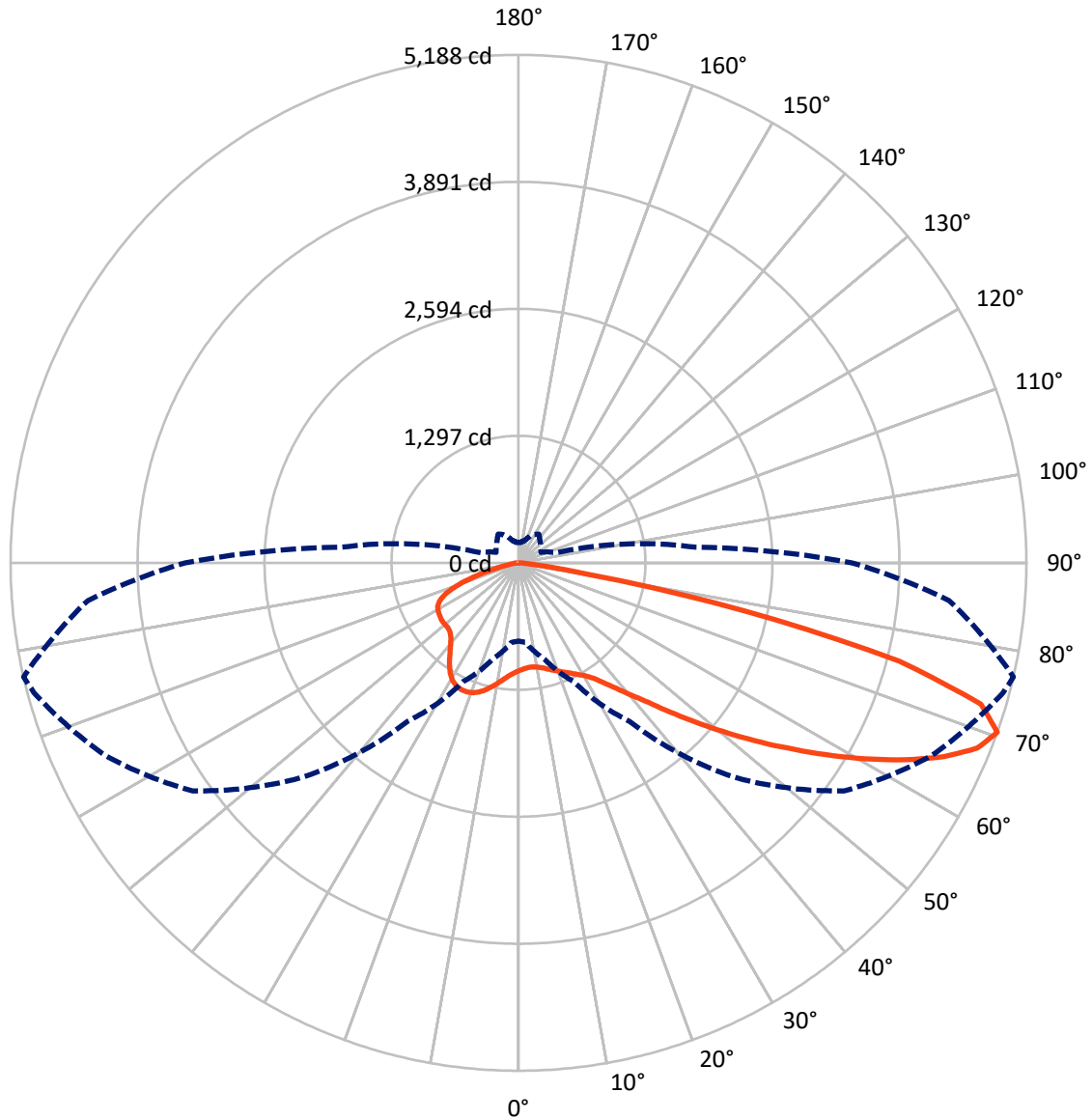
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1726.3 | 0.0 | 1726.3 |
| | % Fixture | 21.9 | 0.0 | 21.9 |
| Street Side | Lumens | 6157.0 | 0.0 | 6157.0 |
| | % Fixture | 78.1 | 0.0 | 78.1 |
| Total | Lumens | 7883.3 | 0.0 | 7883.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 104.9 | 1.3 |
| 10°-20° | 302.7 | 3.8 |
| 20°-30° | 517.7 | 6.6 |
| 30°-40° | 832.5 | 10.6 |
| 40°-50° | 1299.8 | 16.5 |
| 50°-60° | 1736.2 | 22.0 |
| 60°-70° | 1850.5 | 23.5 |
| 70°-80° | 1139.2 | 14.5 |
| 80°-90° | 99.8 | 1.3 |
| 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° | 7883.3 | 100.0 |
| 0°-180° | 7883.3 | 100.0 |

Coefficient of Utilization

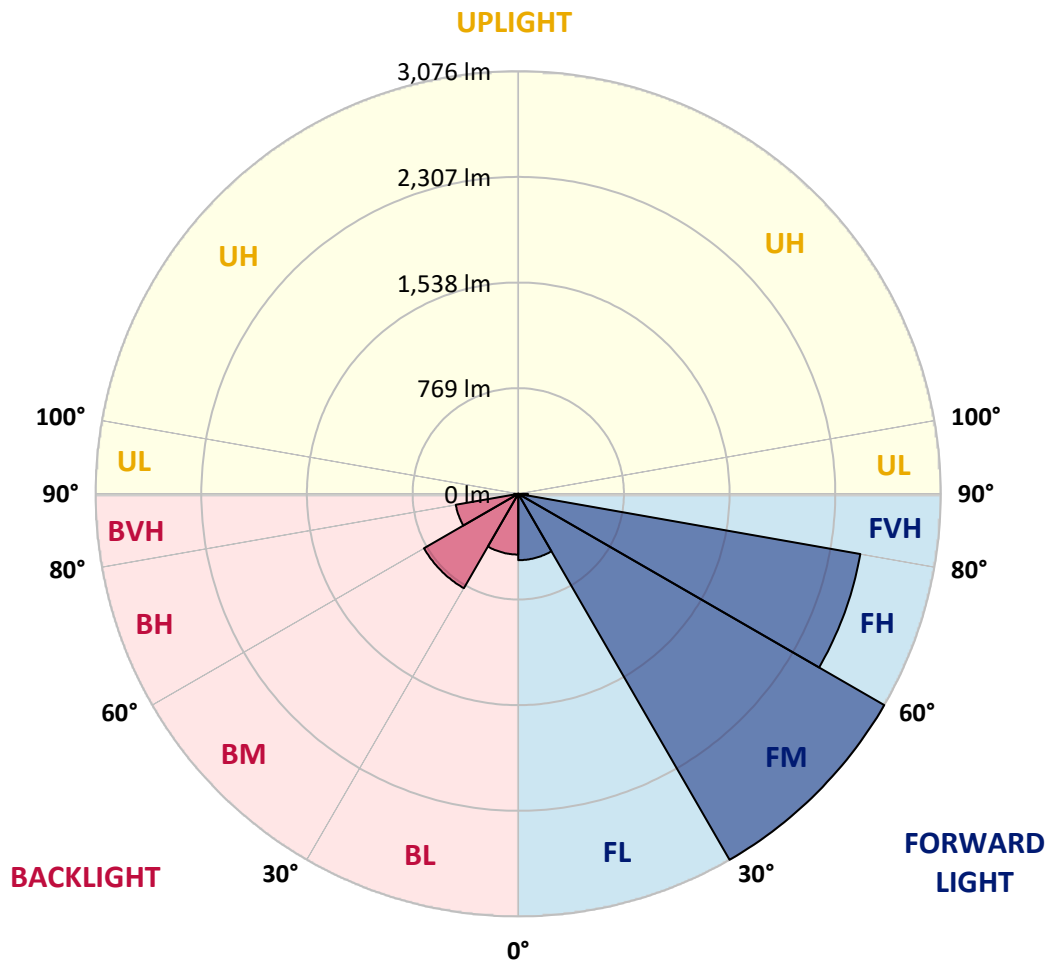


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 483.0 | 6.1 | | | |
| FM (30°-60°) | 3075.9 | 39.0 | | | |
| FH (60°-80°) | 2528.3 | 32.1 | | | G2/5000 |
| FVH (80°-90°) | 69.8 | 0.9 | | | G1/100 |
| BL (0°-30°) | 442.3 | 5.6 | B1/500 | | |
| BM (30°-60°) | 792.6 | 10.1 | B1/1000 | | |
| BH (60°-80°) | 461.4 | 5.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 30.0 | 0.4 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type III Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 |
| 2.5° | 1013.8 | 1013.4 | 1018.6 | 1020.3 | 1029.9 | 1036.8 | 1049.7 | 1063.4 | 1081.2 | 1083.2 | 1094.2 |
| 5° | 955.3 | 955.3 | 961.3 | 967.8 | 980.3 | 994.0 | 1013.8 | 1037.6 | 1068.3 | 1073.2 | 1100.2 |
| 7.5° | 905.6 | 908.9 | 914.1 | 926.6 | 941.2 | 960.9 | 991.2 | 1025.1 | 1065.5 | 1073.2 | 1116.7 |
| 10° | 865.6 | 869.3 | 875.8 | 885.8 | 907.6 | 935.1 | 974.7 | 1018.2 | 1072.4 | 1084.4 | 1140.9 |
| 12.5° | 853.1 | 856.7 | 860.4 | 868.1 | 888.3 | 920.6 | 967.8 | 1021.4 | 1088.9 | 1101.0 | 1174.0 |
| 15° | 882.2 | 886.6 | 883.8 | 881.8 | 892.3 | 921.8 | 971.0 | 1033.2 | 1109.5 | 1126.9 | 1214.8 |
| 17.5° | 949.1 | 950.8 | 944.3 | 925.4 | 923.7 | 939.5 | 986.4 | 1049.3 | 1135.3 | 1154.3 | 1256.0 |
| 20° | 1057.4 | 1054.5 | 1041.3 | 1003.7 | 982.3 | 979.1 | 1012.6 | 1073.6 | 1161.9 | 1182.1 | 1300.4 |
| 22.5° | 1204.4 | 1201.1 | 1174.4 | 1115.1 | 1067.5 | 1036.0 | 1050.5 | 1105.1 | 1191.9 | 1214.4 | 1343.7 |
| 25° | 1387.6 | 1383.2 | 1344.1 | 1263.3 | 1189.4 | 1111.5 | 1102.2 | 1146.7 | 1228.6 | 1249.6 | 1388.9 |
| 27.5° | 1601.7 | 1598.0 | 1555.6 | 1449.0 | 1342.4 | 1214.8 | 1166.4 | 1195.5 | 1266.9 | 1290.8 | 1439.7 |
| 30° | 1831.8 | 1842.2 | 1767.2 | 1652.5 | 1517.6 | 1349.7 | 1252.9 | 1255.6 | 1316.6 | 1338.0 | 1501.5 |
| 32.5° | 2102.3 | 2120.4 | 2030.0 | 1884.7 | 1700.6 | 1496.3 | 1361.8 | 1339.6 | 1388.9 | 1406.6 | 1579.4 |
| 35° | 2370.3 | 2390.9 | 2315.9 | 2155.2 | 1943.2 | 1669.1 | 1475.7 | 1436.1 | 1484.9 | 1504.3 | 1682.7 |
| 37.5° | 2602.1 | 2629.5 | 2590.8 | 2451.1 | 2202.8 | 1877.4 | 1624.2 | 1549.6 | 1603.2 | 1627.5 | 1821.6 |
| 40° | 2785.0 | 2827.0 | 2824.2 | 2737.0 | 2508.9 | 2130.2 | 1812.8 | 1689.6 | 1750.2 | 1776.4 | 1990.0 |
| 42.5° | 2933.5 | 2969.9 | 3001.4 | 2997.0 | 2828.2 | 2417.2 | 2034.4 | 1871.8 | 1917.8 | 1948.0 | 2179.4 |
| 45° | 3036.2 | 3074.9 | 3142.8 | 3215.8 | 3135.5 | 2724.4 | 2288.4 | 2087.7 | 2129.7 | 2175.4 | 2405.1 |
| 47.5° | 3127.8 | 3171.8 | 3259.8 | 3375.6 | 3396.2 | 3032.9 | 2566.6 | 2339.3 | 2377.6 | 2424.8 | 2631.6 |
| 50° | 3135.9 | 3173.8 | 3310.2 | 3474.5 | 3581.6 | 3329.2 | 2865.4 | 2621.4 | 2657.4 | 2707.8 | 2874.2 |
| 52.5° | 2940.8 | 3000.6 | 3238.8 | 3471.8 | 3666.7 | 3577.1 | 3162.1 | 2915.0 | 2955.4 | 3016.0 | 3125.3 |
| 55° | 2282.8 | 2370.3 | 3029.3 | 3363.5 | 3636.5 | 3737.5 | 3444.3 | 3227.1 | 3278.8 | 3342.1 | 3378.1 |
| 57.5° | 1966.3 | 2004.6 | 2404.6 | 3166.5 | 3498.4 | 3779.0 | 3682.5 | 3542.4 | 3625.6 | 3695.0 | 3645.4 |
| 60° | 1767.2 | 1799.1 | 2035.6 | 2860.1 | 3316.7 | 3713.2 | 3866.6 | 3836.4 | 3980.1 | 4062.8 | 3918.7 |
| 62.5° | 1554.0 | 1584.2 | 1799.5 | 2388.1 | 3084.1 | 3603.8 | 3982.9 | 4107.7 | 4343.4 | 4433.8 | 4176.3 |
| 65° | 1342.4 | 1368.3 | 1574.6 | 2006.5 | 2788.6 | 3494.3 | 4043.0 | 4342.2 | 4679.7 | 4773.4 | 4390.3 |
| 67.5° | 1106.7 | 1128.0 | 1323.1 | 1692.9 | 2429.4 | 3344.6 | 4072.9 | 4526.7 | 4972.5 | 5052.8 | 4496.1 |
| 70° | 798.6 | 815.2 | 1016.6 | 1338.8 | 1978.4 | 3087.0 | 4060.8 | 4657.6 | 5124.3 | 5188.4 | 4416.1 |
| 72.5° | 377.5 | 392.5 | 629.0 | 869.3 | 1397.4 | 2585.6 | 3815.8 | 4553.8 | 4970.0 | 4938.1 | 3926.8 |
| 75° | 201.5 | 214.4 | 361.3 | 476.8 | 738.0 | 1772.4 | 3122.6 | 3922.8 | 4173.5 | 4018.4 | 2902.1 |
| 77.5° | 136.4 | 146.6 | 223.7 | 286.3 | 337.1 | 841.4 | 2007.0 | 2715.9 | 2613.0 | 2357.0 | 1453.4 |
| 80° | 108.2 | 118.7 | 183.3 | 193.8 | 163.1 | 304.0 | 829.3 | 1257.3 | 903.1 | 722.3 | 413.4 |
| 82.5° | 83.1 | 94.9 | 154.3 | 140.5 | 88.9 | 124.7 | 241.4 | 397.7 | 231.3 | 176.0 | 100.1 |
| 85° | 50.8 | 63.3 | 121.2 | 89.6 | 50.0 | 56.9 | 82.0 | 110.6 | 70.6 | 58.9 | 36.0 |
| 87.5° | 25.8 | 36.4 | 61.4 | 32.7 | 22.7 | 13.3 | 21.8 | 21.8 | 18.6 | 16.2 | 9.3 |
| 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° | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 | 1099.8 |
| 2.5° | 1103.8 | 1111.9 | 1125.7 | 1138.6 | 1148.6 | 1158.4 | 1168.0 | 1173.3 | 1174.9 | 1181.3 | 1185.0 |
| 5° | 1116.7 | 1131.7 | 1158.4 | 1183.4 | 1199.1 | 1208.8 | 1215.6 | 1219.8 | 1220.5 | 1222.5 | 1225.8 |
| 7.5° | 1140.5 | 1164.4 | 1201.5 | 1226.5 | 1238.3 | 1237.5 | 1234.6 | 1224.6 | 1220.5 | 1216.9 | 1217.7 |
| 10° | 1174.0 | 1205.6 | 1251.2 | 1268.5 | 1261.3 | 1241.9 | 1216.9 | 1187.4 | 1173.6 | 1160.3 | 1156.3 |
| 12.5° | 1215.6 | 1255.6 | 1300.4 | 1299.6 | 1263.7 | 1214.0 | 1155.9 | 1110.7 | 1082.0 | 1061.4 | 1056.6 |
| 15° | 1266.1 | 1312.2 | 1346.4 | 1319.0 | 1240.2 | 1151.1 | 1065.9 | 1007.0 | 981.1 | 958.5 | 956.0 |
| 17.5° | 1318.3 | 1367.5 | 1383.2 | 1312.9 | 1181.3 | 1057.8 | 961.3 | 914.9 | 889.4 | 877.3 | 881.0 |
| 20° | 1369.1 | 1418.0 | 1405.0 | 1278.3 | 1091.7 | 952.0 | 866.0 | 840.6 | 835.4 | 838.1 | 836.9 |
| 22.5° | 1422.8 | 1466.4 | 1409.5 | 1211.2 | 977.4 | 843.8 | 796.6 | 797.3 | 809.1 | 817.5 | 819.6 |
| 25° | 1477.6 | 1507.2 | 1397.8 | 1114.3 | 854.7 | 764.2 | 752.6 | 765.5 | 788.5 | 805.0 | 809.5 |
| 27.5° | 1530.5 | 1543.5 | 1372.3 | 994.5 | 749.4 | 707.4 | 709.4 | 736.1 | 770.7 | 793.8 | 799.4 |
| 30° | 1590.3 | 1575.8 | 1323.5 | 859.6 | 676.3 | 658.5 | 675.5 | 706.5 | 741.3 | 761.9 | 766.7 |
| 32.5° | 1657.7 | 1603.6 | 1246.0 | 734.8 | 624.6 | 619.3 | 647.2 | 667.4 | 682.8 | 688.8 | 692.0 |
| 35° | 1741.8 | 1642.9 | 1146.7 | 647.2 | 578.2 | 590.7 | 617.4 | 607.2 | 601.2 | 598.0 | 601.2 |
| 37.5° | 1850.7 | 1695.8 | 1030.3 | 590.3 | 540.6 | 570.1 | 581.0 | 549.5 | 525.6 | 513.9 | 516.8 |
| 40° | 1981.9 | 1773.2 | 918.5 | 546.2 | 516.8 | 552.3 | 533.3 | 495.4 | 465.1 | 448.5 | 449.8 |
| 42.5° | 2127.7 | 1854.4 | 824.4 | 513.1 | 503.5 | 537.8 | 498.3 | 452.9 | 404.2 | 398.9 | 404.2 |
| 45° | 2280.7 | 1938.0 | 760.2 | 487.7 | 497.0 | 525.3 | 478.1 | 405.0 | 370.2 | 391.7 | 402.9 |
| 47.5° | 2433.8 | 2014.6 | 721.5 | 468.7 | 493.7 | 511.2 | 460.2 | 378.3 | 353.7 | 384.8 | 399.3 |
| 50° | 2604.1 | 2083.3 | 704.1 | 455.0 | 490.2 | 505.5 | 433.6 | 371.5 | 336.3 | 356.9 | 372.3 |
| 52.5° | 2773.3 | 2136.6 | 691.2 | 441.3 | 484.9 | 501.0 | 420.7 | 363.4 | 315.3 | 316.5 | 325.0 |
| 55° | 2942.1 | 2171.4 | 677.1 | 423.1 | 473.1 | 491.4 | 419.5 | 354.4 | 299.6 | 294.0 | 298.0 |
| 57.5° | 3122.1 | 2191.1 | 659.7 | 402.9 | 452.9 | 466.7 | 418.3 | 347.6 | 294.7 | 285.5 | 286.7 |
| 60° | 3305.4 | 2220.1 | 637.1 | 378.3 | 426.0 | 437.3 | 415.4 | 345.2 | 291.9 | 276.1 | 277.4 |
| 62.5° | 3469.7 | 2230.3 | 610.1 | 354.9 | 391.2 | 408.2 | 409.4 | 343.2 | 284.2 | 257.2 | 257.2 |
| 65° | 3577.6 | 2186.6 | 562.8 | 328.2 | 353.7 | 378.3 | 397.7 | 336.3 | 270.5 | 243.4 | 243.4 |
| 67.5° | 3573.2 | 2062.3 | 488.9 | 294.0 | 317.3 | 345.2 | 380.7 | 324.6 | 254.0 | 226.5 | 227.8 |
| 70° | 3406.8 | 1816.8 | 395.2 | 254.0 | 277.4 | 309.7 | 359.0 | 307.3 | 234.2 | 208.0 | 210.3 |
| 72.5° | 2921.9 | 1422.0 | 287.1 | 207.2 | 230.9 | 273.0 | 330.7 | 286.3 | 214.0 | 191.4 | 190.1 |
| 75° | 2087.3 | 900.0 | 194.6 | 159.1 | 179.7 | 231.3 | 295.5 | 261.6 | 195.4 | 192.2 | 181.3 |
| 77.5° | 1066.3 | 430.0 | 128.8 | 116.2 | 125.2 | 182.4 | 248.3 | 233.8 | 198.2 | 158.7 | 141.3 |
| 80° | 346.9 | 158.7 | 81.2 | 79.1 | 83.1 | 121.6 | 192.2 | 191.8 | 150.2 | 107.8 | 95.3 |
| 82.5° | 110.6 | 68.3 | 52.9 | 50.8 | 48.9 | 76.3 | 134.1 | 151.8 | 101.4 | 68.3 | 67.9 |
| 85° | 44.0 | 40.8 | 31.1 | 28.7 | 20.6 | 36.0 | 70.2 | 101.0 | 75.5 | 49.3 | 50.4 |
| 87.5° | 16.2 | 16.2 | 8.5 | 6.0 | 4.4 | 12.1 | 19.0 | 30.2 | 43.2 | 25.4 | 25.0 |
| 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)