

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: P299162

Luminaire Tested: **GAA-AF-02-LED-U-T3-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299162
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-T3-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9486 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

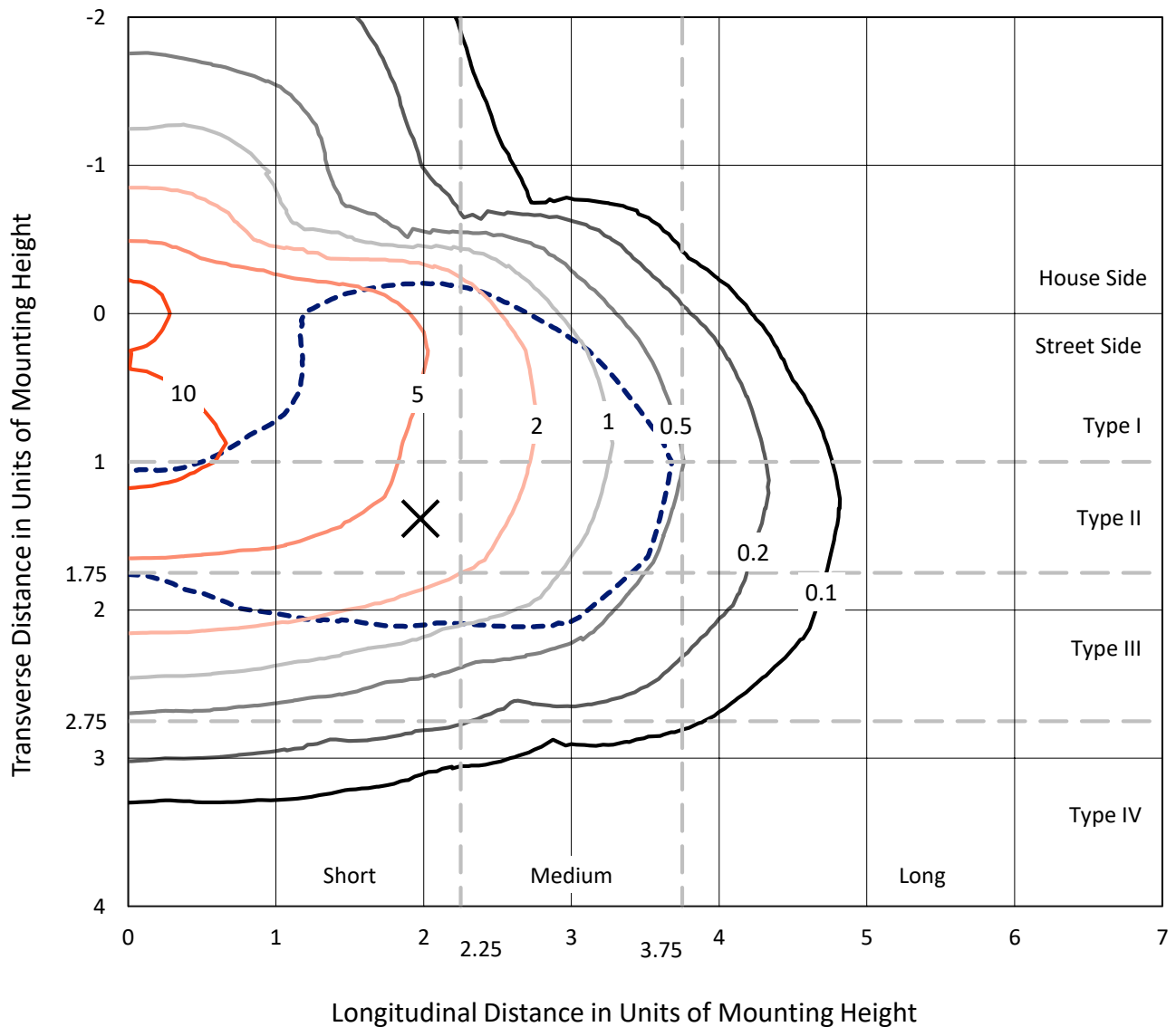
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

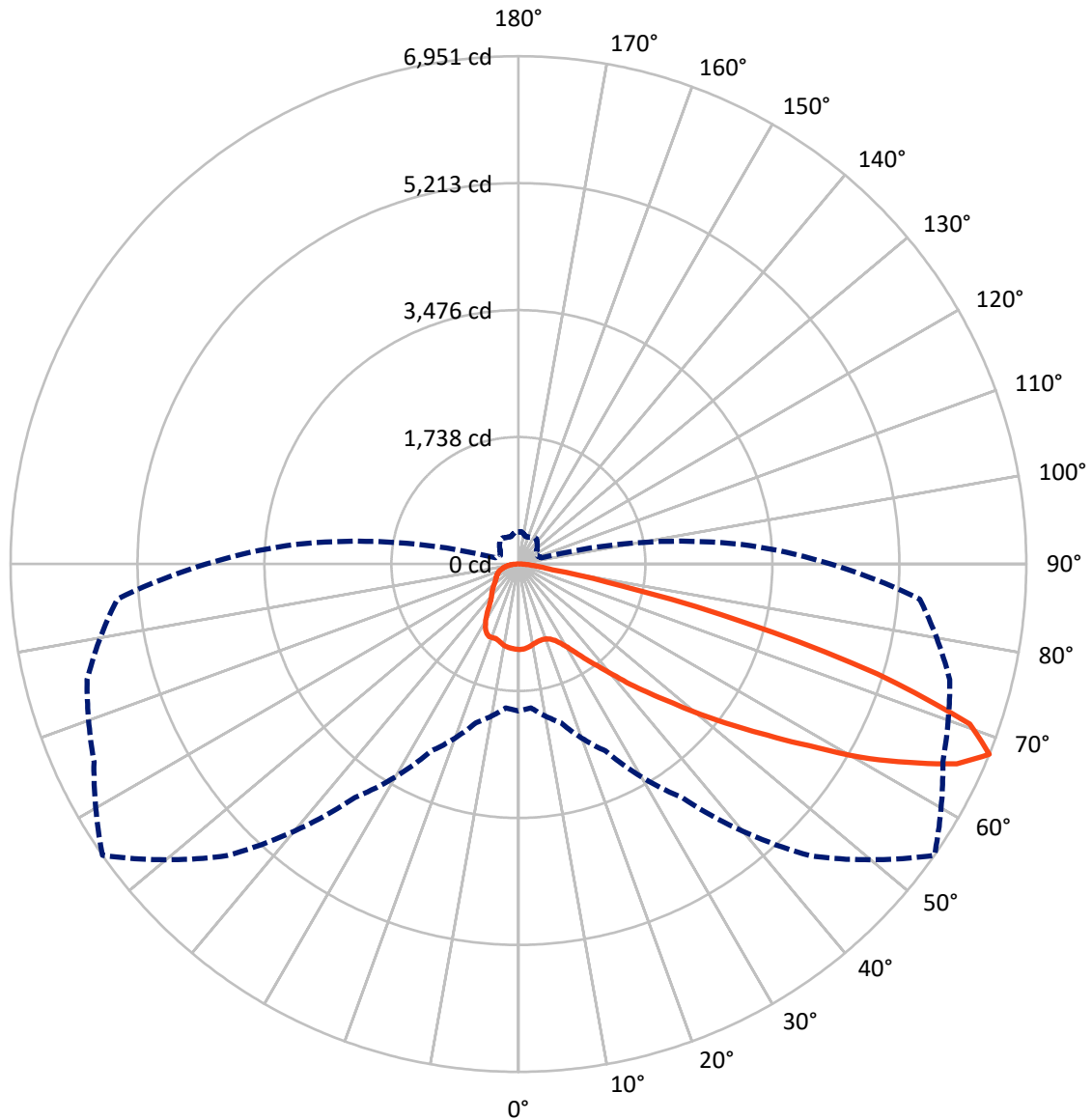
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2049.2 | 0.0 | 2049.2 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 7436.8 | 0.0 | 7436.8 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 9486.0 | 0.0 | 9486.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 109.2 | 1.2 |
| 10°-20° | 309.2 | 3.3 |
| 20°-30° | 518.0 | 5.5 |
| 30°-40° | 851.8 | 9.0 |
| 40°-50° | 1433.8 | 15.1 |
| 50°-60° | 2256.7 | 23.8 |
| 60°-70° | 2693.1 | 28.4 |
| 70°-80° | 1156.5 | 12.2 |
| 80°-90° | 157.7 | 1.7 |
| 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° | 9486.0 | 100.0 |
| 0°-180° | 9486.0 | 100.0 |

Coefficient of Utilization



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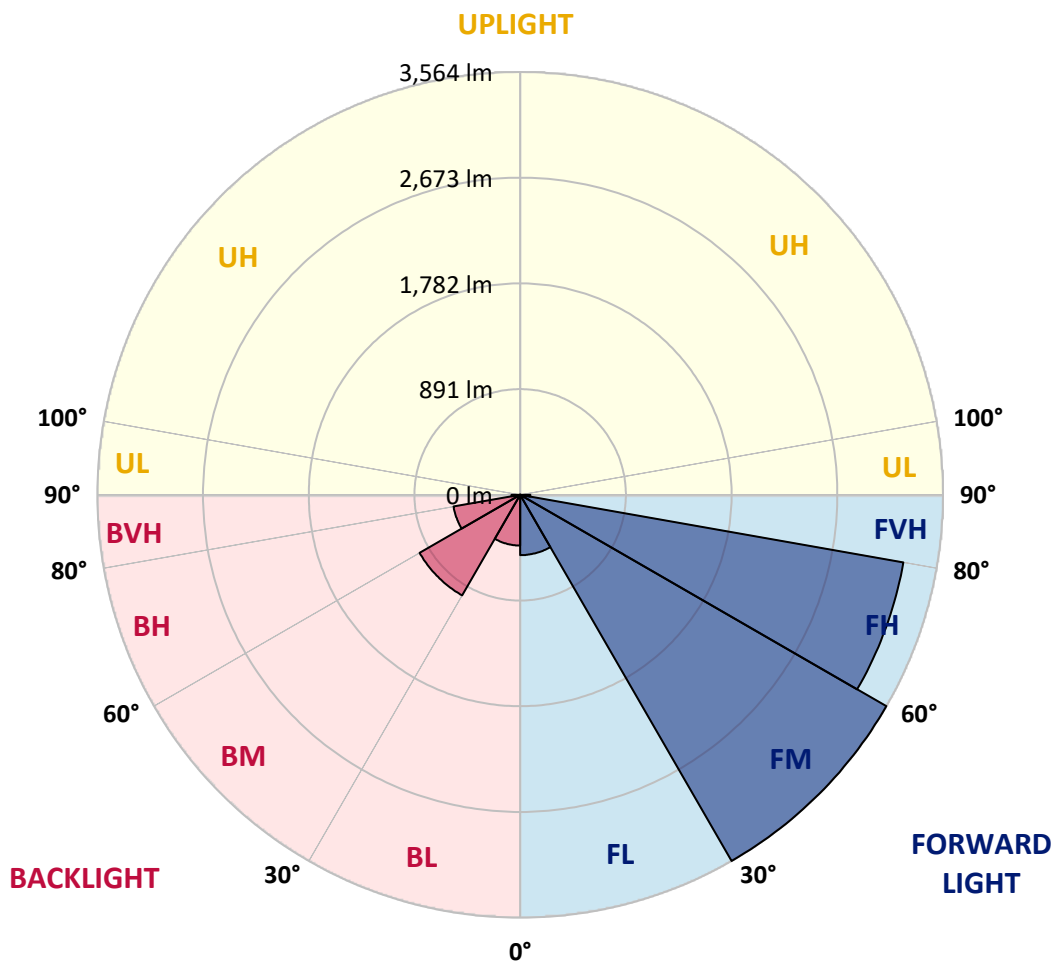
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 508.5 | 5.4 | | | |
| FM | (30°-60°) | 3563.6 | 37.6 | | | |
| FH | (60°-80°) | 3279.3 | 34.6 | | | G2/5000 |
| FVH | (80°-90°) | 85.4 | 0.9 | | | G1/100 |
| BL | (0°-30°) | 427.9 | 4.5 | B1/500 | | |
| BM | (30°-60°) | 978.7 | 10.3 | B1/1000 | | |
| BH | (60°-80°) | 570.3 | 6.0 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 72.3 | 0.8 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 |
| 2.5° | 1159.6 | 1160.1 | 1161.0 | 1164.7 | 1167.9 | 1167.0 | 1167.4 | 1165.6 | 1165.1 | 1162.4 | 1165.1 |
| 5° | 1145.0 | 1146.4 | 1146.8 | 1152.8 | 1156.4 | 1157.4 | 1156.0 | 1153.7 | 1150.9 | 1148.2 | 1149.6 |
| 7.5° | 1111.5 | 1115.2 | 1115.7 | 1123.9 | 1129.9 | 1137.7 | 1138.1 | 1138.6 | 1137.2 | 1135.4 | 1138.1 |
| 10° | 1090.5 | 1091.4 | 1090.9 | 1096.9 | 1101.5 | 1110.2 | 1115.2 | 1123.9 | 1127.6 | 1128.5 | 1130.3 |
| 12.5° | 1089.1 | 1088.2 | 1086.8 | 1086.8 | 1085.4 | 1089.1 | 1098.2 | 1110.6 | 1119.3 | 1122.1 | 1124.4 |
| 15° | 1103.7 | 1103.3 | 1098.7 | 1091.8 | 1083.1 | 1080.4 | 1088.2 | 1101.9 | 1113.4 | 1119.3 | 1121.6 |
| 17.5° | 1136.7 | 1134.0 | 1126.7 | 1111.1 | 1092.3 | 1085.0 | 1085.9 | 1097.3 | 1110.6 | 1118.4 | 1120.7 |
| 20° | 1197.2 | 1197.2 | 1181.6 | 1152.3 | 1118.9 | 1101.5 | 1093.2 | 1100.1 | 1112.9 | 1123.4 | 1126.7 |
| 22.5° | 1301.7 | 1302.6 | 1276.5 | 1228.4 | 1172.0 | 1134.9 | 1114.3 | 1112.9 | 1128.0 | 1139.9 | 1143.6 |
| 25° | 1449.7 | 1446.0 | 1409.3 | 1340.6 | 1254.9 | 1193.5 | 1157.8 | 1149.6 | 1162.4 | 1175.7 | 1180.3 |
| 27.5° | 1621.9 | 1608.7 | 1565.1 | 1482.2 | 1371.3 | 1281.5 | 1226.5 | 1213.2 | 1225.6 | 1240.7 | 1245.3 |
| 30° | 1792.4 | 1778.6 | 1726.9 | 1636.1 | 1512.9 | 1399.3 | 1320.5 | 1298.9 | 1316.3 | 1337.9 | 1340.6 |
| 32.5° | 1962.8 | 1962.8 | 1905.1 | 1799.3 | 1665.0 | 1539.9 | 1445.5 | 1419.9 | 1448.8 | 1474.9 | 1480.8 |
| 35° | 2166.7 | 2167.6 | 2111.7 | 1984.4 | 1840.0 | 1707.6 | 1603.6 | 1584.8 | 1628.4 | 1646.7 | 1660.9 |
| 37.5° | 2417.3 | 2422.4 | 2350.4 | 2196.5 | 2038.4 | 1899.1 | 1775.4 | 1749.8 | 1793.3 | 1843.2 | 1889.1 |
| 40° | 2688.1 | 2694.5 | 2615.3 | 2425.6 | 2267.5 | 2121.8 | 1988.0 | 1941.7 | 2014.1 | 2109.4 | 2168.5 |
| 42.5° | 2946.5 | 2979.5 | 2903.0 | 2707.8 | 2537.8 | 2387.1 | 2251.5 | 2184.1 | 2274.8 | 2418.7 | 2470.0 |
| 45° | 3319.9 | 3343.8 | 3210.4 | 3033.6 | 2873.7 | 2705.1 | 2525.5 | 2454.4 | 2581.4 | 2762.8 | 2773.3 |
| 47.5° | 3568.7 | 3550.9 | 3483.1 | 3373.1 | 3271.8 | 3114.2 | 2843.9 | 2766.0 | 2934.6 | 3148.1 | 3089.0 |
| 50° | 3701.1 | 3706.6 | 3697.5 | 3703.9 | 3707.6 | 3608.6 | 3234.3 | 3127.5 | 3328.6 | 3586.6 | 3450.5 |
| 52.5° | 3824.9 | 3788.2 | 3818.4 | 3968.7 | 4150.2 | 4113.5 | 3659.0 | 3547.7 | 3751.1 | 4073.2 | 3832.6 |
| 55° | 3822.1 | 3766.2 | 3864.7 | 4130.0 | 4523.6 | 4565.7 | 4136.0 | 4007.7 | 4197.8 | 4595.0 | 4237.7 |
| 57.5° | 3686.9 | 3689.7 | 3841.3 | 4188.6 | 4783.8 | 4990.9 | 4689.4 | 4497.0 | 4671.6 | 5123.8 | 4607.4 |
| 60° | 3500.9 | 3526.1 | 3744.7 | 4179.0 | 4992.3 | 5339.6 | 5368.4 | 5024.4 | 5135.7 | 5604.4 | 4913.5 |
| 62.5° | 3200.8 | 3227.4 | 3528.9 | 4079.1 | 4960.7 | 5675.4 | 5982.4 | 5622.7 | 5620.9 | 5895.8 | 5003.3 |
| 65° | 2727.5 | 2719.7 | 3036.3 | 3705.7 | 4695.4 | 5923.8 | 6592.2 | 6140.0 | 5986.5 | 5900.4 | 4822.8 |
| 67.5° | 2011.4 | 1976.6 | 2248.3 | 2822.4 | 3902.7 | 5645.6 | 6951.0 | 6409.4 | 6111.2 | 5512.3 | 4271.1 |
| 70° | 1043.7 | 1008.9 | 1228.8 | 1648.1 | 2566.7 | 4406.3 | 6553.7 | 6270.1 | 5835.8 | 4620.7 | 3346.1 |
| 72.5° | 446.3 | 440.3 | 529.7 | 723.0 | 1241.7 | 2541.5 | 5138.9 | 5427.1 | 5007.4 | 3442.7 | 2300.5 |
| 75° | 300.1 | 298.3 | 331.7 | 394.0 | 558.5 | 1031.4 | 3215.9 | 3852.3 | 3663.6 | 2134.6 | 1293.9 |
| 77.5° | 235.5 | 233.2 | 252.9 | 283.2 | 362.0 | 406.9 | 1427.2 | 2068.2 | 1914.3 | 929.2 | 566.3 |
| 80° | 184.2 | 182.4 | 194.7 | 211.2 | 260.2 | 256.6 | 469.6 | 822.9 | 636.9 | 356.0 | 275.4 |
| 82.5° | 145.2 | 145.2 | 155.3 | 155.8 | 184.6 | 175.0 | 245.1 | 362.4 | 318.0 | 207.6 | 168.6 |
| 85° | 132.9 | 132.9 | 143.4 | 116.4 | 120.5 | 110.4 | 152.1 | 214.9 | 201.6 | 85.2 | 73.3 |
| 87.5° | 66.9 | 65.1 | 120.5 | 103.1 | 65.5 | 58.6 | 74.2 | 104.0 | 111.8 | 47.2 | 36.7 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 | 1169.7 |
| 2.5° | 1164.2 | 1163.8 | 1164.7 | 1165.1 | 1168.8 | 1173.8 | 1176.1 | 1179.3 | 1181.2 | 1180.3 |
| 5° | 1150.5 | 1151.4 | 1155.1 | 1157.8 | 1164.2 | 1172.5 | 1177.1 | 1180.7 | 1183.9 | 1182.6 |
| 7.5° | 1139.0 | 1141.3 | 1146.8 | 1149.1 | 1152.8 | 1155.1 | 1154.6 | 1156.0 | 1158.7 | 1155.5 |
| 10° | 1132.6 | 1135.4 | 1139.5 | 1136.3 | 1127.6 | 1115.2 | 1103.7 | 1097.8 | 1099.6 | 1097.3 |
| 12.5° | 1126.2 | 1129.9 | 1126.7 | 1111.5 | 1087.3 | 1071.2 | 1062.5 | 1063.4 | 1067.6 | 1068.5 |
| 15° | 1122.5 | 1123.9 | 1110.2 | 1081.8 | 1057.0 | 1054.7 | 1059.3 | 1058.4 | 1058.8 | 1058.8 |
| 17.5° | 1122.5 | 1118.9 | 1093.2 | 1064.8 | 1054.3 | 1050.1 | 1035.9 | 1018.1 | 1010.3 | 1007.5 |
| 20° | 1128.5 | 1118.9 | 1087.7 | 1068.9 | 1046.0 | 1010.7 | 973.2 | 940.2 | 925.5 | 921.4 |
| 22.5° | 1146.4 | 1129.9 | 1103.3 | 1070.8 | 1005.7 | 946.6 | 887.0 | 847.6 | 821.1 | 816.5 |
| 25° | 1182.6 | 1164.2 | 1134.0 | 1046.5 | 941.6 | 857.2 | 789.4 | 745.5 | 718.9 | 715.2 |
| 27.5° | 1245.8 | 1233.9 | 1150.5 | 992.9 | 856.3 | 766.1 | 703.3 | 669.4 | 649.7 | 648.3 |
| 30° | 1341.1 | 1335.1 | 1142.2 | 913.6 | 751.4 | 677.6 | 647.4 | 627.7 | 613.0 | 612.6 |
| 32.5° | 1493.2 | 1445.1 | 1115.2 | 816.9 | 655.6 | 614.9 | 602.5 | 590.6 | 579.1 | 579.1 |
| 35° | 1688.8 | 1534.0 | 1063.9 | 713.4 | 597.5 | 580.1 | 564.5 | 545.7 | 530.6 | 529.7 |
| 37.5° | 1918.8 | 1589.0 | 971.8 | 630.0 | 570.0 | 556.7 | 533.8 | 505.8 | 479.3 | 474.7 |
| 40° | 2151.1 | 1605.4 | 842.1 | 578.7 | 552.6 | 533.3 | 505.4 | 472.4 | 446.7 | 445.3 |
| 42.5° | 2364.2 | 1573.8 | 704.7 | 543.4 | 535.1 | 509.5 | 480.2 | 450.8 | 430.7 | 430.2 |
| 45° | 2542.9 | 1491.8 | 589.2 | 509.9 | 516.8 | 488.0 | 461.8 | 438.0 | 422.4 | 419.2 |
| 47.5° | 2711.0 | 1375.9 | 508.1 | 474.7 | 498.5 | 476.0 | 454.1 | 431.6 | 416.5 | 414.2 |
| 50° | 2906.2 | 1250.8 | 451.3 | 440.3 | 482.5 | 471.9 | 460.5 | 437.1 | 411.9 | 409.2 |
| 52.5° | 3142.6 | 1142.7 | 406.9 | 410.1 | 470.1 | 477.4 | 477.0 | 452.7 | 408.7 | 405.0 |
| 55° | 3406.5 | 1022.6 | 373.4 | 385.3 | 465.0 | 487.5 | 481.1 | 467.3 | 411.4 | 405.9 |
| 57.5° | 3666.3 | 882.4 | 350.0 | 366.5 | 457.7 | 486.6 | 461.4 | 441.7 | 417.9 | 410.1 |
| 60° | 3861.0 | 694.1 | 332.2 | 350.0 | 441.7 | 471.5 | 439.8 | 413.7 | 416.5 | 410.5 |
| 62.5° | 3873.9 | 536.5 | 310.6 | 335.8 | 417.4 | 456.3 | 425.6 | 401.4 | 422.4 | 416.9 |
| 65° | 3646.2 | 405.5 | 290.0 | 318.9 | 391.3 | 446.7 | 411.9 | 394.5 | 434.8 | 428.9 |
| 67.5° | 3069.8 | 326.2 | 272.6 | 301.5 | 365.2 | 426.6 | 399.5 | 388.1 | 445.8 | 435.3 |
| 70° | 2216.2 | 278.1 | 255.7 | 280.4 | 341.8 | 403.7 | 388.5 | 376.6 | 416.0 | 399.5 |
| 72.5° | 1364.4 | 241.0 | 236.4 | 252.5 | 323.9 | 379.8 | 372.0 | 355.1 | 374.8 | 361.5 |
| 75° | 681.3 | 208.9 | 214.9 | 225.0 | 298.7 | 352.8 | 344.5 | 327.6 | 330.3 | 327.6 |
| 77.5° | 326.2 | 178.7 | 189.7 | 197.5 | 266.2 | 322.1 | 313.4 | 296.0 | 292.8 | 293.2 |
| 80° | 206.6 | 149.4 | 159.9 | 165.4 | 237.8 | 286.4 | 277.7 | 260.2 | 296.9 | 275.4 |
| 82.5° | 129.2 | 121.4 | 124.2 | 134.2 | 207.1 | 249.2 | 237.8 | 222.2 | 267.6 | 211.7 |
| 85° | 71.5 | 84.8 | 88.4 | 97.1 | 159.4 | 208.5 | 197.0 | 177.3 | 159.0 | 156.2 |
| 87.5° | 42.6 | 50.4 | 51.8 | 58.2 | 107.2 | 150.7 | 133.3 | 126.5 | 104.9 | 104.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)