

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: INVUE

Report Number: P401917

Luminaire Tested: **ENV-SA1F-827-U-SL2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401917
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1F-827-U-SL2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4626 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

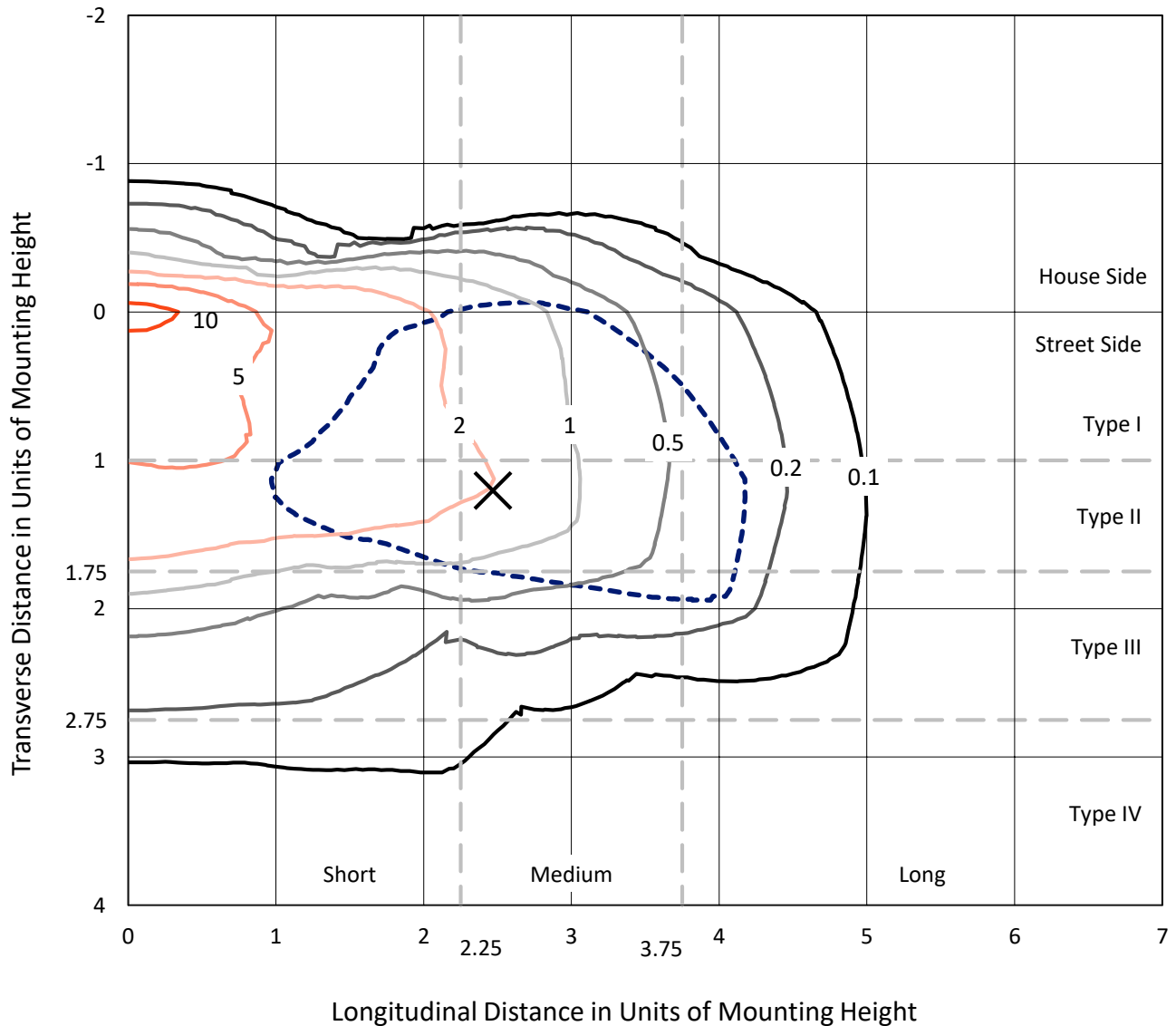
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

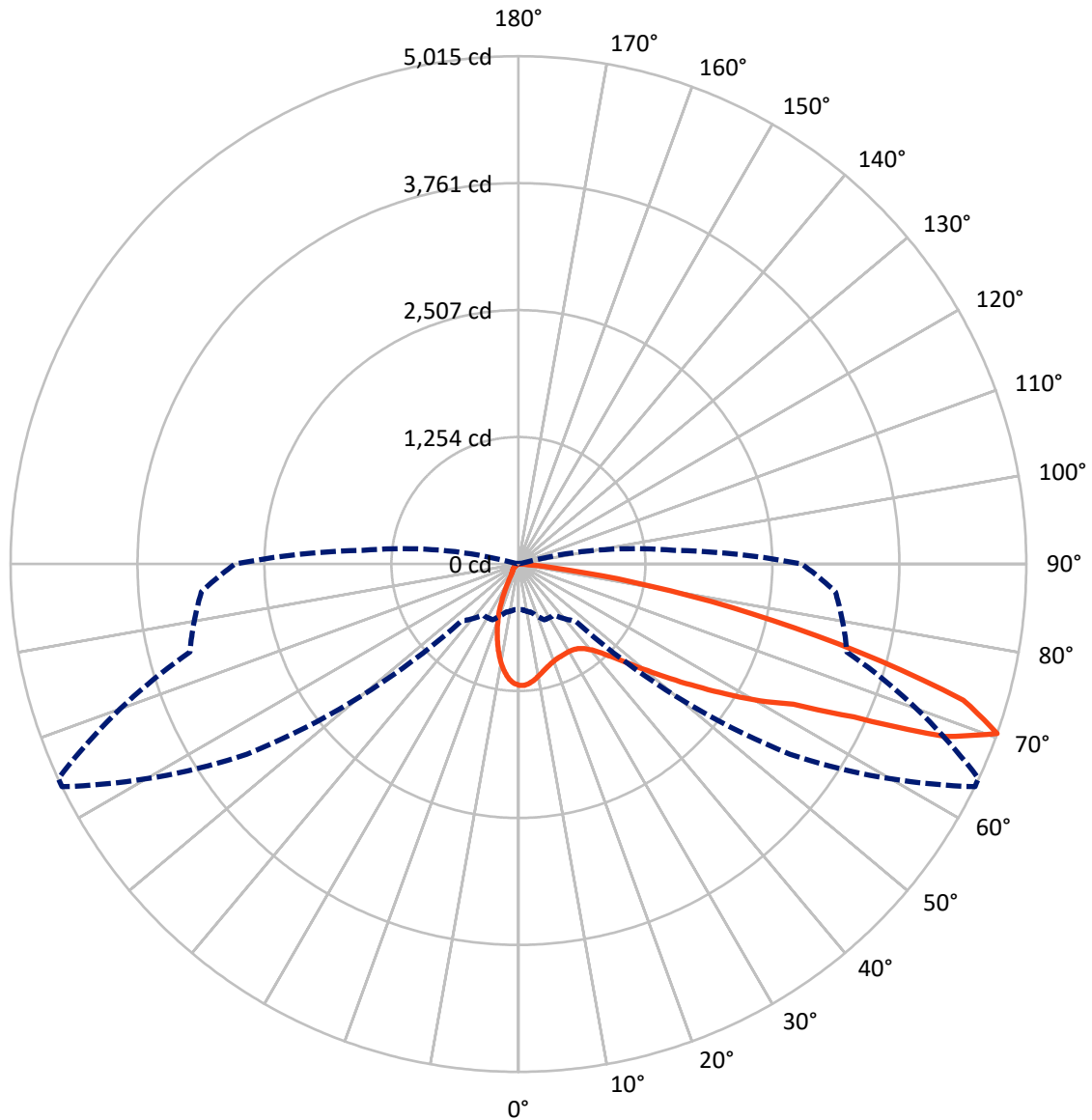
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 594.3 | 0.0 | 594.3 |
| | % Fixture | 12.8 | 0.0 | 12.8 |
| Street Side | Lumens | 4031.7 | 0.0 | 4031.7 |
| | % Fixture | 87.2 | 0.0 | 87.2 |
| Total | Lumens | 4626.0 | 0.0 | 4626.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 100.9 | 2.2 |
| 10°-20° | 223.9 | 4.8 |
| 20°-30° | 308.4 | 6.7 |
| 30°-40° | 424.7 | 9.2 |
| 40°-50° | 632.9 | 13.7 |
| 50°-60° | 999.9 | 21.6 |
| 60°-70° | 1133.0 | 24.5 |
| 70°-80° | 743.9 | 16.1 |
| 80°-90° | 58.3 | 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° | 4626.0 | 100.0 |
| 0°-180° | 4626.0 | 100.0 |



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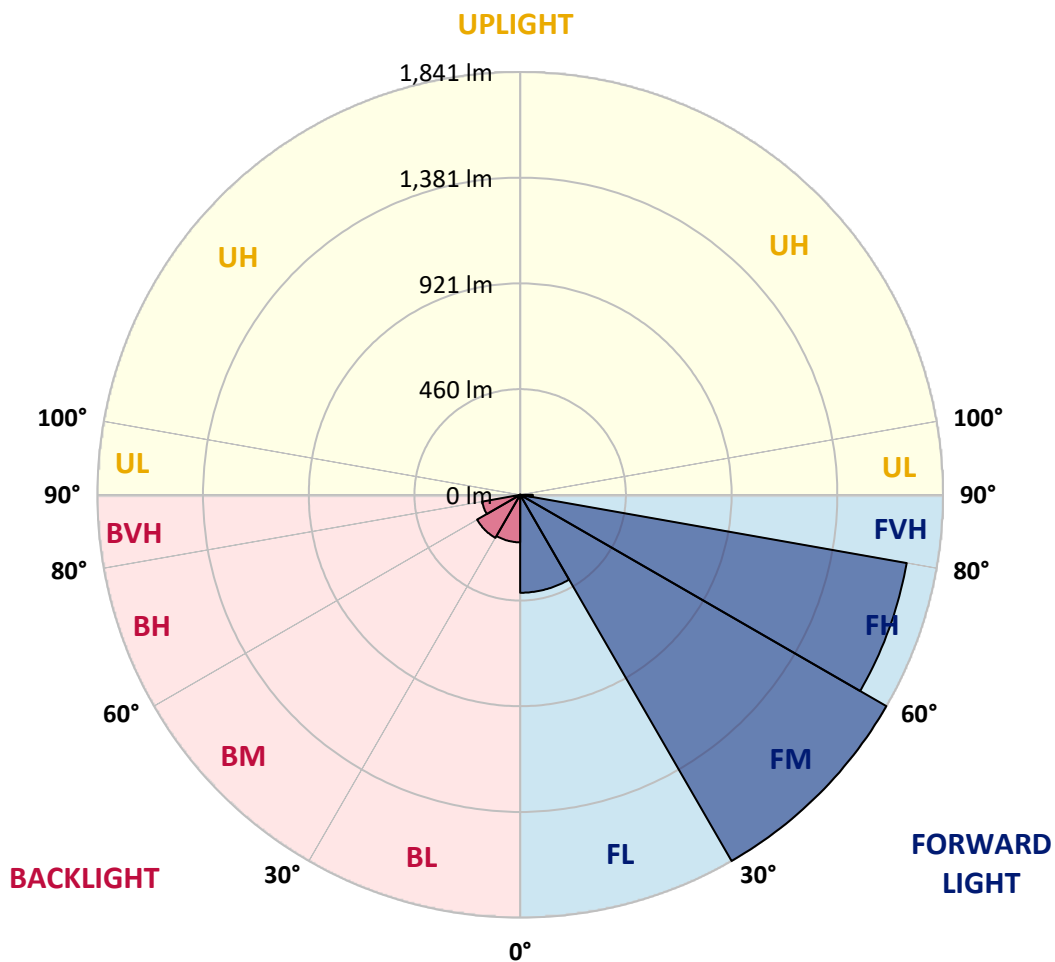
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 426.4 | 9.2 | | | |
| FM | (30°-60°) | 1841.1 | 39.8 | | | |
| FH | (60°-80°) | 1709.1 | 36.9 | | | G1/1800 |
| FVH | (80°-90°) | 55.1 | 1.2 | | | G1/100 |
| BL | (0°-30°) | 206.8 | 4.5 | B1/500 | | |
| BM | (30°-60°) | 216.4 | 4.7 | B0/220 | | |
| BH | (60°-80°) | 167.8 | 3.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 3.2 | 0.1 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 |
| 2.5° | 1164.1 | 1164.1 | 1169.8 | 1175.5 | 1178.8 | 1187.7 | 1194.2 | 1199.1 | 1199.1 | 1202.4 | 1196.7 |
| 5° | 1086.9 | 1086.9 | 1091.7 | 1105.6 | 1120.2 | 1138.9 | 1160.1 | 1181.2 | 1185.3 | 1200.8 | 1199.9 |
| 7.5° | 1015.3 | 1021.8 | 1029.9 | 1043.7 | 1059.2 | 1086.9 | 1116.1 | 1152.8 | 1156.8 | 1194.2 | 1202.4 |
| 10° | 965.6 | 969.7 | 974.6 | 990.0 | 1012.8 | 1044.6 | 1076.3 | 1119.4 | 1126.7 | 1182.9 | 1202.4 |
| 12.5° | 925.8 | 926.6 | 933.9 | 951.0 | 973.0 | 1003.9 | 1039.7 | 1086.9 | 1095.8 | 1162.5 | 1199.1 |
| 15° | 897.3 | 896.5 | 904.6 | 920.9 | 942.1 | 973.8 | 1008.8 | 1058.4 | 1068.1 | 1145.4 | 1198.3 |
| 17.5° | 880.2 | 881.0 | 887.5 | 899.7 | 920.1 | 950.2 | 986.0 | 1034.8 | 1044.6 | 1131.6 | 1202.4 |
| 20° | 880.2 | 880.2 | 884.3 | 890.0 | 905.4 | 932.3 | 967.3 | 1017.7 | 1027.5 | 1122.7 | 1208.1 |
| 22.5° | 897.3 | 895.7 | 898.9 | 894.1 | 901.4 | 920.1 | 955.9 | 1006.3 | 1016.9 | 1118.6 | 1217.0 |
| 25° | 928.2 | 925.0 | 927.4 | 916.8 | 908.7 | 916.8 | 948.6 | 1001.4 | 1012.8 | 1119.4 | 1225.2 |
| 27.5° | 971.3 | 971.3 | 966.5 | 951.8 | 931.5 | 922.5 | 947.7 | 998.2 | 1009.6 | 1119.4 | 1230.9 |
| 30° | 1031.5 | 1029.1 | 1021.8 | 1007.1 | 975.4 | 945.3 | 955.9 | 998.2 | 1009.6 | 1120.2 | 1232.5 |
| 32.5° | 1091.7 | 1093.4 | 1097.4 | 1082.8 | 1039.7 | 984.4 | 975.4 | 1005.5 | 1015.3 | 1119.4 | 1230.0 |
| 35° | 1152.8 | 1153.6 | 1171.5 | 1173.1 | 1117.8 | 1047.0 | 1008.8 | 1025.0 | 1031.5 | 1127.5 | 1231.7 |
| 37.5° | 1206.4 | 1210.5 | 1245.5 | 1262.6 | 1217.0 | 1127.5 | 1061.6 | 1061.6 | 1064.9 | 1149.5 | 1241.4 |
| 40° | 1266.6 | 1277.2 | 1319.5 | 1357.8 | 1339.9 | 1230.9 | 1138.9 | 1115.3 | 1117.0 | 1189.4 | 1263.4 |
| 42.5° | 1336.6 | 1349.6 | 1404.9 | 1460.3 | 1459.4 | 1357.8 | 1236.5 | 1200.8 | 1202.4 | 1258.5 | 1308.1 |
| 45° | 1425.3 | 1434.2 | 1504.2 | 1573.3 | 1588.0 | 1497.7 | 1359.4 | 1312.2 | 1313.8 | 1363.5 | 1395.2 |
| 47.5° | 1533.5 | 1544.1 | 1611.6 | 1694.6 | 1732.0 | 1666.1 | 1518.8 | 1467.6 | 1462.7 | 1497.7 | 1520.5 |
| 50° | 1675.0 | 1695.4 | 1735.2 | 1815.0 | 1905.3 | 1861.3 | 1705.9 | 1654.7 | 1648.2 | 1675.8 | 1683.2 |
| 52.5° | 1810.1 | 1828.8 | 1845.1 | 1918.3 | 2093.2 | 2103.8 | 1935.4 | 1879.2 | 1872.7 | 1879.2 | 1888.2 |
| 55° | 1830.4 | 1841.0 | 1853.2 | 1952.4 | 2245.3 | 2412.1 | 2196.5 | 2129.8 | 2111.1 | 2098.9 | 2129.0 |
| 57.5° | 1668.5 | 1662.0 | 1702.7 | 1837.7 | 2270.5 | 2752.9 | 2549.6 | 2420.2 | 2402.3 | 2334.8 | 2304.7 |
| 60° | 1321.2 | 1312.2 | 1350.4 | 1535.1 | 2129.0 | 2922.2 | 3039.3 | 2741.6 | 2697.6 | 2471.5 | 2442.2 |
| 62.5° | 928.2 | 917.6 | 967.3 | 1076.3 | 1651.4 | 2888.8 | 3591.7 | 3045.8 | 2958.8 | 2592.7 | 2552.8 |
| 65° | 715.1 | 710.2 | 737.0 | 761.5 | 1007.9 | 2502.4 | 3895.9 | 3639.7 | 3459.9 | 2724.5 | 2673.2 |
| 67.5° | 560.5 | 567.0 | 600.4 | 671.2 | 650.8 | 1559.5 | 3867.5 | 4545.9 | 4366.1 | 2966.9 | 2934.4 |
| 70° | 450.7 | 452.3 | 493.8 | 606.9 | 614.2 | 794.0 | 3274.4 | 5014.5 | 5012.1 | 3358.2 | 3141.8 |
| 72.5° | 272.5 | 279.8 | 347.4 | 524.7 | 619.9 | 607.7 | 2201.4 | 4594.7 | 4658.2 | 3449.3 | 2833.5 |
| 75° | 131.0 | 138.3 | 179.8 | 352.3 | 615.8 | 591.4 | 1191.0 | 3478.6 | 3559.9 | 3093.0 | 2297.4 |
| 77.5° | 48.8 | 55.3 | 83.0 | 172.5 | 456.4 | 541.8 | 626.4 | 2345.4 | 2409.6 | 2264.0 | 1556.3 |
| 80° | 15.5 | 17.9 | 32.5 | 78.9 | 231.9 | 447.4 | 403.5 | 1322.8 | 1365.9 | 990.9 | 523.1 |
| 82.5° | 1.6 | 2.4 | 8.9 | 26.8 | 89.5 | 227.8 | 236.7 | 497.9 | 519.8 | 193.6 | 105.8 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 1.6 | 58.6 | 95.2 | 78.1 | 18.7 | 30.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 1.6 | 2.4 | 2.4 | 2.4 | 3.3 |
| 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° | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 | 1197.5 |
| 2.5° | 1195.9 | 1195.9 | 1190.2 | 1181.2 | 1169.8 | 1153.6 | 1149.5 | 1136.5 | 1136.5 | 1125.9 | 1124.3 |
| 5° | 1197.5 | 1192.6 | 1173.9 | 1146.2 | 1108.0 | 1066.5 | 1040.5 | 1012.0 | 987.6 | 972.2 | 973.8 |
| 7.5° | 1197.5 | 1186.9 | 1149.5 | 1088.5 | 1016.9 | 945.3 | 890.8 | 827.3 | 798.1 | 778.5 | 787.5 |
| 10° | 1194.2 | 1176.3 | 1111.3 | 1018.5 | 905.4 | 806.2 | 716.7 | 643.5 | 593.1 | 571.9 | 554.0 |
| 12.5° | 1186.9 | 1160.9 | 1063.3 | 931.5 | 786.7 | 656.5 | 532.9 | 436.9 | 370.2 | 336.8 | 332.7 |
| 15° | 1180.4 | 1144.6 | 1007.1 | 836.3 | 652.4 | 482.4 | 344.1 | 252.2 | 195.2 | 182.2 | 183.9 |
| 17.5° | 1178.8 | 1129.2 | 953.4 | 735.4 | 521.5 | 321.3 | 198.5 | 160.3 | 152.1 | 148.9 | 148.1 |
| 20° | 1179.6 | 1115.3 | 894.9 | 635.4 | 369.3 | 200.1 | 150.5 | 141.6 | 138.3 | 136.7 | 135.9 |
| 22.5° | 1182.9 | 1099.9 | 837.1 | 530.4 | 252.2 | 146.4 | 134.2 | 128.5 | 124.5 | 122.0 | 121.2 |
| 25° | 1182.9 | 1082.8 | 772.8 | 419.0 | 165.1 | 128.5 | 120.4 | 113.1 | 107.4 | 104.1 | 104.1 |
| 27.5° | 1180.4 | 1063.3 | 706.1 | 318.1 | 131.0 | 114.7 | 105.8 | 96.0 | 88.7 | 84.6 | 84.6 |
| 30° | 1173.1 | 1039.7 | 641.9 | 222.1 | 114.7 | 102.5 | 91.1 | 78.9 | 70.0 | 65.9 | 64.3 |
| 32.5° | 1162.5 | 1014.5 | 567.8 | 156.2 | 103.3 | 89.5 | 76.5 | 63.5 | 55.3 | 50.4 | 50.4 |
| 35° | 1151.1 | 989.2 | 488.1 | 119.6 | 93.6 | 78.9 | 64.3 | 51.3 | 43.9 | 40.7 | 39.9 |
| 37.5° | 1145.4 | 962.4 | 410.0 | 103.3 | 83.8 | 67.5 | 52.1 | 41.5 | 35.8 | 33.4 | 32.5 |
| 40° | 1149.5 | 942.1 | 333.5 | 92.7 | 74.8 | 56.9 | 43.1 | 35.0 | 30.1 | 26.8 | 26.8 |
| 42.5° | 1173.9 | 930.7 | 261.1 | 84.6 | 66.7 | 48.0 | 35.8 | 28.5 | 23.6 | 21.2 | 21.2 |
| 45° | 1223.5 | 938.8 | 198.5 | 77.3 | 56.9 | 39.9 | 30.1 | 22.8 | 17.9 | 15.5 | 15.5 |
| 47.5° | 1306.5 | 971.3 | 150.5 | 70.8 | 48.8 | 32.5 | 24.4 | 17.9 | 13.8 | 12.2 | 11.4 |
| 50° | 1427.7 | 1035.6 | 118.0 | 64.3 | 40.7 | 27.7 | 20.3 | 13.8 | 10.6 | 8.9 | 8.9 |
| 52.5° | 1602.6 | 1147.1 | 100.9 | 56.9 | 33.4 | 22.8 | 16.3 | 10.6 | 8.1 | 6.5 | 6.5 |
| 55° | 1817.4 | 1288.6 | 91.1 | 50.4 | 26.8 | 18.7 | 13.0 | 8.1 | 5.7 | 4.9 | 4.1 |
| 57.5° | 1991.5 | 1400.9 | 85.4 | 43.9 | 22.8 | 16.3 | 9.8 | 6.5 | 4.9 | 3.3 | 3.3 |
| 60° | 2145.2 | 1473.3 | 75.7 | 36.6 | 19.5 | 13.0 | 8.1 | 4.9 | 3.3 | 2.4 | 2.4 |
| 62.5° | 2269.7 | 1520.5 | 62.6 | 29.3 | 16.3 | 10.6 | 6.5 | 4.1 | 3.3 | 2.4 | 2.4 |
| 65° | 2411.3 | 1558.7 | 51.3 | 22.8 | 13.8 | 8.9 | 5.7 | 3.3 | 2.4 | 2.4 | 2.4 |
| 67.5° | 2688.7 | 1644.1 | 38.2 | 17.9 | 10.6 | 7.3 | 4.9 | 3.3 | 2.4 | 1.6 | 1.6 |
| 70° | 2796.9 | 1544.1 | 30.1 | 14.6 | 8.1 | 6.5 | 4.9 | 3.3 | 1.6 | 1.6 | 1.6 |
| 72.5° | 2380.3 | 1156.0 | 23.6 | 12.2 | 7.3 | 5.7 | 4.9 | 3.3 | 2.4 | 2.4 | 1.6 |
| 75° | 1888.2 | 781.0 | 18.7 | 9.8 | 7.3 | 6.5 | 4.9 | 4.9 | 4.1 | 3.3 | 3.3 |
| 77.5° | 1205.6 | 345.7 | 14.6 | 8.1 | 7.3 | 8.1 | 7.3 | 4.9 | 4.9 | 4.1 | 4.1 |
| 80° | 359.6 | 83.0 | 10.6 | 6.5 | 5.7 | 6.5 | 7.3 | 4.9 | 3.3 | 2.4 | 2.4 |
| 82.5° | 78.1 | 19.5 | 6.5 | 3.3 | 4.1 | 3.3 | 4.9 | 4.9 | 3.3 | 2.4 | 2.4 |
| 85° | 26.0 | 7.3 | 4.1 | 3.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 1.6 |
| 87.5° | 1.6 | 2.4 | 2.4 | 1.6 | 1.6 | 1.6 | 1.6 | 0.8 | 0.8 | 1.6 | 1.6 |
| 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)