

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: P401450

Luminaire Tested: **ENT-SA1D-730-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-730-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5079 lumens
Efficiency: N/A
Efficacy: 117.8 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 - G2

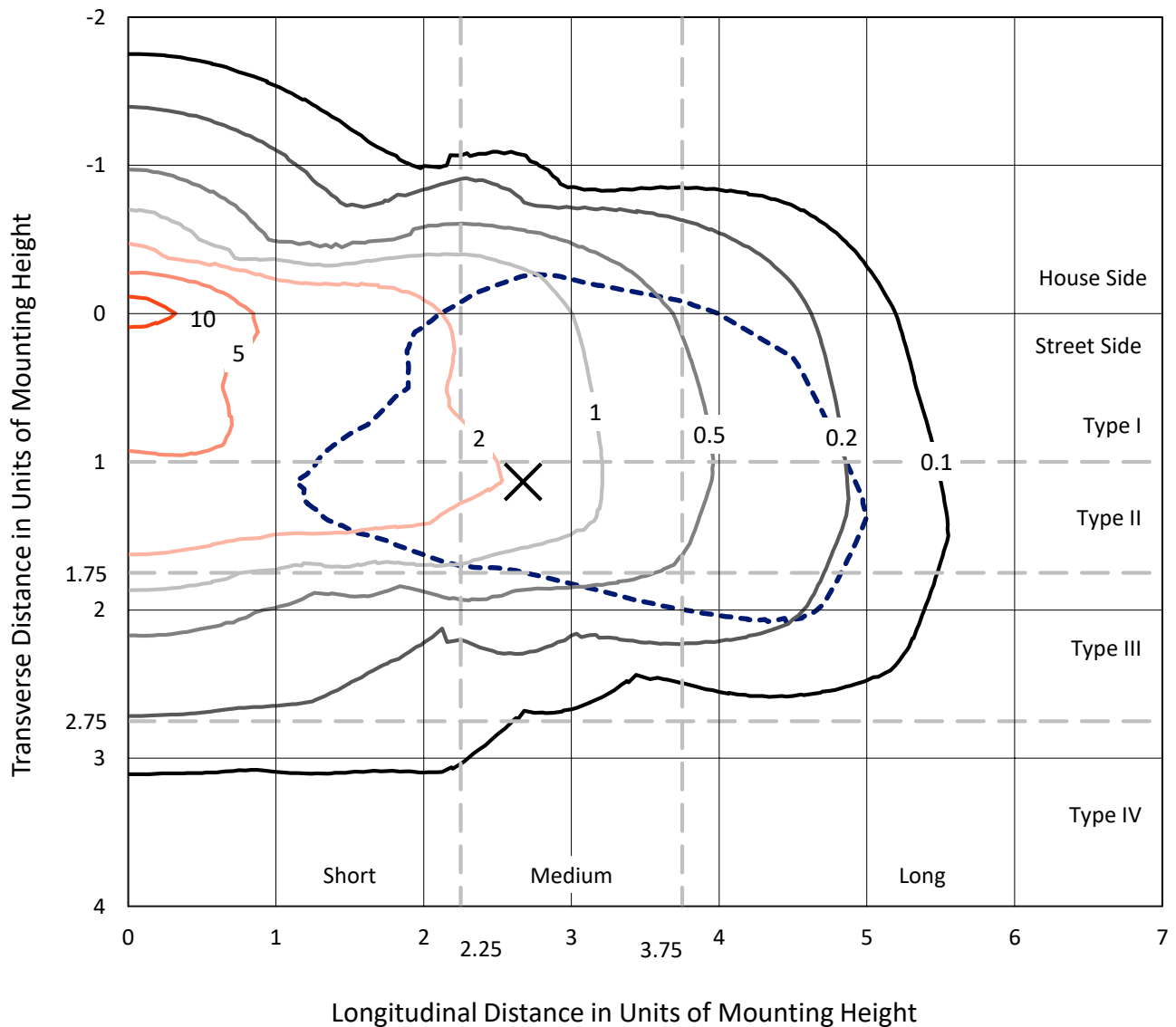
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

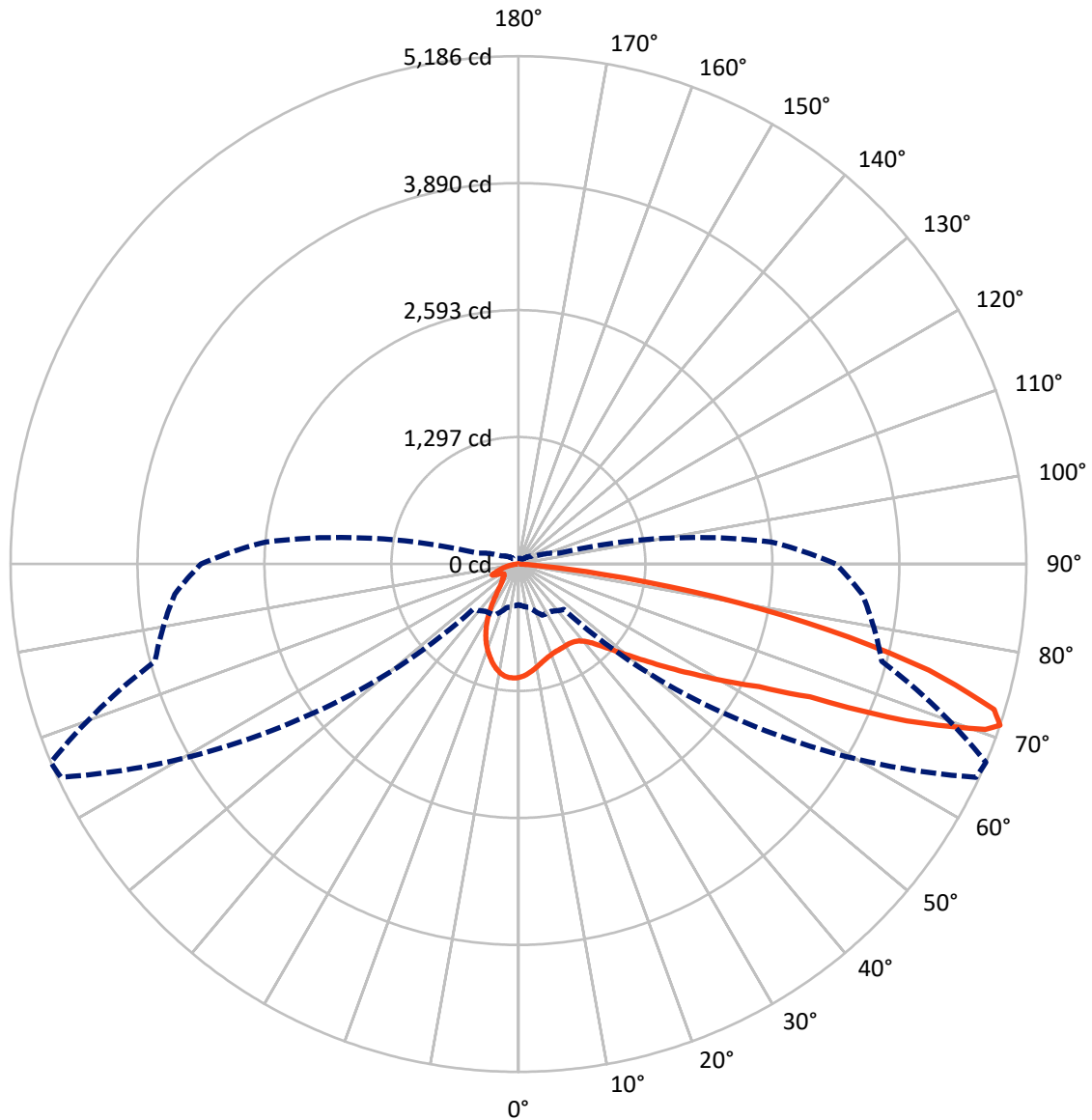


Based on 10 foot mounting height. Maximum calculated value = 11.6 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1040.5 | 0.0 | 1040.5 |
| | % Fixture | 20.5 | 0.0 | 20.5 |
| Street Side | Lumens | 4038.5 | 0.0 | 4038.5 |
| | % Fixture | 79.5 | 0.0 | 79.5 |
| Total | Lumens | 5079.0 | 0.0 | 5079.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.6 | 2.0 |
| 10°-20° | 252.2 | 5.0 |
| 20°-30° | 340.5 | 6.7 |
| 30°-40° | 448.5 | 8.8 |
| 40°-50° | 638.8 | 12.6 |
| 50°-60° | 975.8 | 19.2 |
| 60°-70° | 1218.5 | 24.0 |
| 70°-80° | 983.5 | 19.4 |
| 80°-90° | 118.5 | 2.3 |
| 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° | 5079.0 | 100.0 |
| 0°-180° | 5079.0 | 100.0 |



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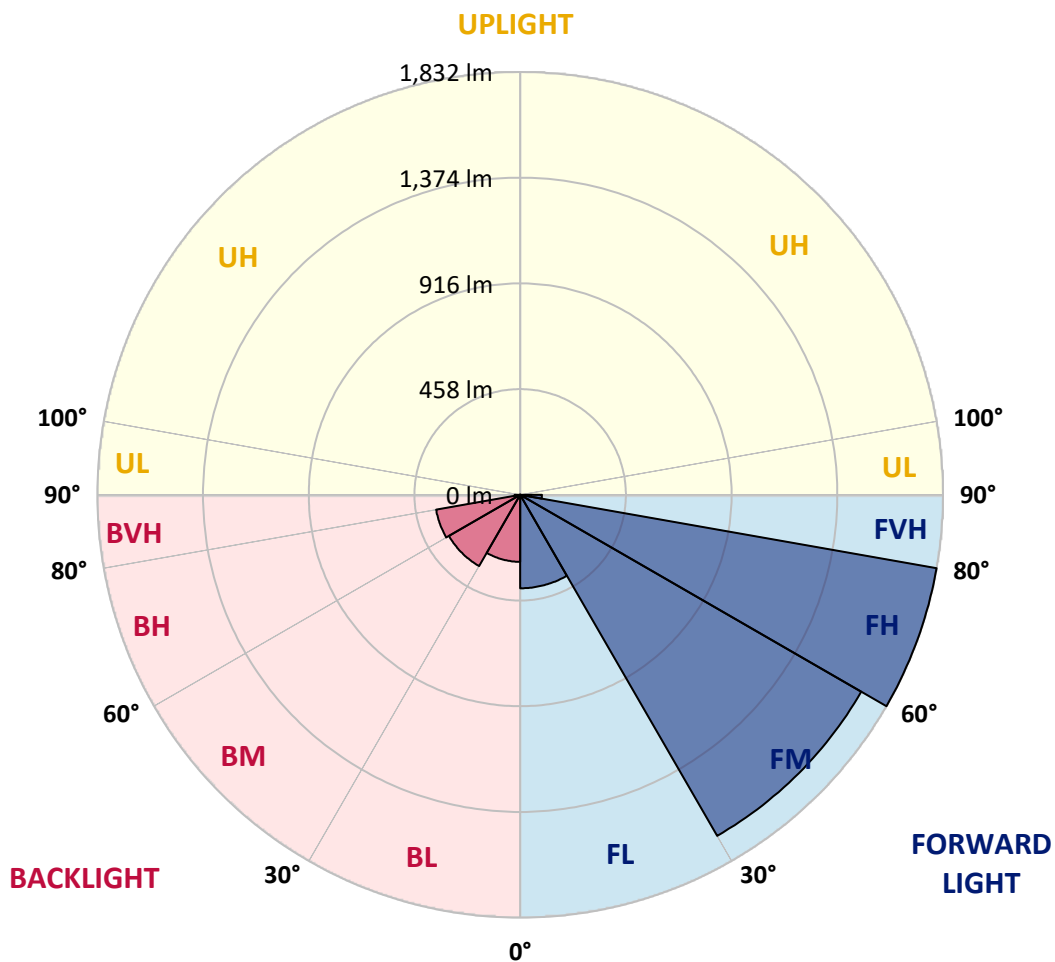
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 405.0 | 8.0 | | | |
| FM | (30°-60°) | 1706.6 | 33.6 | | | |
| FH | (60°-80°) | 1832.3 | 36.1 | | | G2/5000 |
| FVH | (80°-90°) | 94.5 | 1.9 | | | G1/100 |
| BL | (0°-30°) | 290.3 | 5.7 | B1/500 | | |
| BM | (30°-60°) | 356.5 | 7.0 | B1/1000 | | |
| BH | (60°-80°) | 369.8 | 7.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 24.0 | 0.5 | | | 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° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 |
| 2.5° | 1092.3 | 1097.5 | 1098.2 | 1108.4 | 1112.1 | 1123.8 | 1130.4 | 1141.3 | 1142.8 | 1149.4 | 1153.8 |
| 5° | 1021.4 | 1022.2 | 1026.5 | 1035.3 | 1049.2 | 1070.4 | 1086.5 | 1113.5 | 1118.7 | 1137.7 | 1154.5 |
| 7.5° | 957.8 | 961.5 | 968.8 | 981.9 | 998.0 | 1022.9 | 1047.7 | 1085.0 | 1092.3 | 1123.1 | 1155.2 |
| 10° | 914.7 | 918.3 | 924.2 | 938.8 | 954.9 | 982.7 | 1012.6 | 1055.8 | 1063.8 | 1106.2 | 1153.0 |
| 12.5° | 880.3 | 884.0 | 888.4 | 904.4 | 922.0 | 949.8 | 980.5 | 1028.7 | 1036.8 | 1085.8 | 1147.9 |
| 15° | 857.6 | 858.4 | 864.2 | 877.4 | 897.1 | 924.2 | 954.9 | 1004.6 | 1014.1 | 1069.7 | 1146.4 |
| 17.5° | 843.8 | 845.2 | 850.3 | 860.6 | 878.1 | 904.4 | 934.4 | 984.9 | 995.8 | 1056.5 | 1147.2 |
| 20° | 844.5 | 845.9 | 848.9 | 852.5 | 865.0 | 887.6 | 919.1 | 970.2 | 981.2 | 1048.5 | 1152.3 |
| 22.5° | 859.8 | 860.6 | 861.3 | 856.2 | 860.6 | 876.7 | 907.4 | 960.0 | 971.7 | 1044.8 | 1158.1 |
| 25° | 889.1 | 889.1 | 887.6 | 875.9 | 866.4 | 873.0 | 900.8 | 956.3 | 968.0 | 1041.9 | 1164.0 |
| 27.5° | 929.3 | 932.2 | 924.9 | 911.0 | 889.1 | 878.1 | 899.3 | 953.4 | 965.1 | 1041.9 | 1166.9 |
| 30° | 984.1 | 985.6 | 982.7 | 964.4 | 928.6 | 898.6 | 903.7 | 951.2 | 962.9 | 1040.4 | 1167.7 |
| 32.5° | 1039.7 | 1044.1 | 1047.7 | 1031.7 | 988.5 | 935.1 | 921.3 | 954.2 | 964.4 | 1039.7 | 1165.5 |
| 35° | 1096.0 | 1098.9 | 1116.5 | 1113.5 | 1066.8 | 990.0 | 949.8 | 965.9 | 974.6 | 1043.4 | 1166.9 |
| 37.5° | 1144.3 | 1150.8 | 1176.4 | 1196.2 | 1159.6 | 1064.6 | 998.8 | 991.4 | 996.6 | 1061.6 | 1175.0 |
| 40° | 1196.2 | 1205.7 | 1243.7 | 1281.0 | 1264.9 | 1158.1 | 1068.2 | 1037.5 | 1036.0 | 1095.3 | 1194.7 |
| 42.5° | 1254.7 | 1265.6 | 1314.6 | 1368.7 | 1373.8 | 1277.3 | 1161.1 | 1102.6 | 1101.1 | 1153.0 | 1237.8 |
| 45° | 1323.4 | 1333.6 | 1400.2 | 1464.5 | 1495.9 | 1410.4 | 1275.1 | 1194.7 | 1195.4 | 1233.5 | 1306.6 |
| 47.5° | 1408.2 | 1424.3 | 1488.6 | 1570.5 | 1626.8 | 1560.3 | 1413.3 | 1323.4 | 1317.5 | 1354.8 | 1419.2 |
| 50° | 1527.4 | 1540.5 | 1593.9 | 1673.6 | 1772.3 | 1741.6 | 1587.3 | 1478.4 | 1474.0 | 1491.6 | 1569.8 |
| 52.5° | 1652.4 | 1656.8 | 1682.4 | 1765.0 | 1931.0 | 1961.7 | 1801.6 | 1670.7 | 1653.9 | 1663.4 | 1757.0 |
| 55° | 1659.7 | 1669.2 | 1686.0 | 1790.6 | 2073.6 | 2225.6 | 2037.7 | 1897.3 | 1875.4 | 1868.8 | 1969.7 |
| 57.5° | 1507.6 | 1523.0 | 1544.9 | 1680.2 | 2079.4 | 2530.5 | 2373.3 | 2162.0 | 2122.5 | 2089.6 | 2197.1 |
| 60° | 1185.2 | 1204.9 | 1245.2 | 1411.1 | 1931.0 | 2704.5 | 2933.4 | 2458.9 | 2423.8 | 2311.9 | 2419.4 |
| 62.5° | 856.9 | 865.0 | 903.7 | 978.3 | 1532.5 | 2714.8 | 3516.8 | 2846.4 | 2759.4 | 2528.3 | 2610.9 |
| 65° | 690.2 | 703.4 | 715.1 | 714.3 | 907.4 | 2407.7 | 3904.4 | 3535.9 | 3273.4 | 2770.3 | 2821.5 |
| 67.5° | 568.8 | 573.2 | 601.7 | 651.5 | 617.1 | 1487.2 | 3943.1 | 4543.4 | 4277.2 | 3096.4 | 3071.6 |
| 70° | 475.2 | 476.7 | 505.2 | 594.4 | 590.8 | 767.7 | 3306.3 | 5123.2 | 5058.8 | 3631.6 | 3462.7 |
| 71° | 416.0 | 428.5 | 459.9 | 575.4 | 587.8 | 655.8 | 2809.1 | 5153.9 | 5186.1 | 3841.5 | 3523.4 |
| 72.5° | 327.6 | 327.6 | 372.2 | 527.9 | 593.0 | 605.4 | 2069.9 | 4986.5 | 5079.3 | 4079.8 | 3418.1 |
| 75° | 192.3 | 190.8 | 215.0 | 367.8 | 606.1 | 603.2 | 1130.4 | 4144.2 | 4332.1 | 4123.0 | 3163.7 |
| 77.5° | 108.2 | 110.4 | 123.6 | 204.7 | 481.1 | 579.1 | 649.3 | 3017.5 | 3239.0 | 3448.8 | 2675.3 |
| 80° | 49.7 | 52.6 | 62.1 | 99.4 | 283.7 | 500.1 | 463.6 | 1959.5 | 2043.6 | 2072.8 | 1264.2 |
| 82.5° | 13.2 | 14.6 | 19.0 | 38.0 | 109.7 | 340.7 | 342.9 | 820.4 | 847.4 | 489.9 | 271.3 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 41.7 | 97.2 | 147.7 | 122.8 | 65.1 | 55.6 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 2.2 | 2.9 | 2.9 | 2.9 | 3.7 |
| 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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CATALOG NUMBER: ENT-SA1D-730-U-SL2

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 |
| 2.5° | 1157.4 | 1160.3 | 1165.5 | 1164.7 | 1163.3 | 1154.5 | 1159.6 | 1154.5 | 1153.8 | 1151.6 | 1152.3 |
| 5° | 1160.3 | 1164.7 | 1167.7 | 1161.1 | 1150.1 | 1131.1 | 1124.5 | 1107.7 | 1096.7 | 1090.9 | 1088.0 |
| 7.5° | 1164.7 | 1167.7 | 1166.2 | 1147.9 | 1119.4 | 1083.6 | 1052.9 | 1028.7 | 1003.1 | 998.8 | 997.3 |
| 10° | 1164.7 | 1167.7 | 1156.0 | 1120.9 | 1071.9 | 1015.6 | 968.8 | 929.3 | 889.8 | 875.2 | 877.4 |
| 12.5° | 1161.8 | 1163.3 | 1136.2 | 1079.9 | 1009.0 | 932.2 | 866.4 | 801.3 | 750.9 | 720.2 | 714.3 |
| 15° | 1159.6 | 1157.4 | 1109.9 | 1028.7 | 934.4 | 839.4 | 739.9 | 652.2 | 592.2 | 552.0 | 546.9 |
| 17.5° | 1159.6 | 1151.6 | 1078.5 | 970.2 | 853.3 | 722.4 | 590.8 | 495.7 | 429.2 | 405.8 | 405.1 |
| 20° | 1161.1 | 1143.5 | 1044.8 | 909.6 | 752.4 | 583.5 | 440.9 | 359.7 | 334.9 | 331.2 | 331.9 |
| 22.5° | 1162.5 | 1132.6 | 1008.3 | 840.8 | 639.8 | 435.0 | 315.1 | 285.9 | 288.1 | 296.8 | 296.1 |
| 25° | 1161.1 | 1117.9 | 965.1 | 764.1 | 516.9 | 313.7 | 254.4 | 247.1 | 260.3 | 270.5 | 273.5 |
| 27.5° | 1157.4 | 1098.9 | 919.1 | 672.7 | 394.1 | 247.1 | 222.3 | 221.5 | 234.7 | 244.2 | 243.5 |
| 30° | 1146.4 | 1076.3 | 865.7 | 576.1 | 284.4 | 210.6 | 200.3 | 202.5 | 211.3 | 220.1 | 220.1 |
| 32.5° | 1134.7 | 1050.7 | 809.4 | 470.9 | 218.6 | 190.8 | 187.2 | 187.9 | 193.8 | 200.3 | 199.6 |
| 35° | 1122.3 | 1025.8 | 751.6 | 361.2 | 191.6 | 179.1 | 177.7 | 176.9 | 179.1 | 180.6 | 180.6 |
| 37.5° | 1115.0 | 1003.9 | 688.0 | 272.0 | 176.9 | 171.8 | 168.9 | 166.0 | 165.2 | 163.8 | 162.3 |
| 40° | 1117.9 | 989.3 | 626.6 | 210.6 | 168.2 | 163.8 | 159.4 | 155.0 | 152.1 | 150.6 | 149.9 |
| 42.5° | 1138.4 | 984.9 | 558.6 | 181.3 | 160.1 | 156.5 | 150.6 | 143.3 | 140.4 | 140.4 | 139.7 |
| 45° | 1185.9 | 998.0 | 495.0 | 166.7 | 152.8 | 148.4 | 138.9 | 133.8 | 131.6 | 132.3 | 132.3 |
| 47.5° | 1260.5 | 1035.3 | 438.0 | 159.4 | 147.7 | 141.1 | 130.1 | 125.0 | 123.6 | 124.3 | 124.3 |
| 50° | 1372.4 | 1105.5 | 379.5 | 152.8 | 141.8 | 133.1 | 123.6 | 117.7 | 115.5 | 115.5 | 115.5 |
| 52.5° | 1536.2 | 1221.0 | 337.1 | 148.4 | 136.7 | 126.5 | 117.0 | 110.4 | 107.5 | 107.5 | 106.7 |
| 55° | 1735.8 | 1371.6 | 321.0 | 145.5 | 130.1 | 120.6 | 110.4 | 103.8 | 99.4 | 98.0 | 98.7 |
| 57.5° | 1954.4 | 1566.9 | 344.4 | 144.8 | 122.8 | 114.1 | 103.8 | 95.8 | 91.4 | 90.7 | 89.9 |
| 60° | 2179.6 | 1760.6 | 411.6 | 141.1 | 117.0 | 106.0 | 96.5 | 89.2 | 84.8 | 83.4 | 82.6 |
| 62.5° | 2374.1 | 1953.6 | 522.8 | 138.2 | 112.6 | 98.7 | 88.5 | 81.9 | 78.2 | 76.0 | 76.0 |
| 65° | 2608.8 | 2175.2 | 692.4 | 141.8 | 110.4 | 91.4 | 81.2 | 75.3 | 72.4 | 70.2 | 70.2 |
| 67.5° | 2929.0 | 2503.5 | 821.1 | 159.4 | 115.5 | 85.5 | 73.1 | 68.7 | 66.5 | 65.1 | 65.1 |
| 70° | 3244.1 | 2687.7 | 571.0 | 187.2 | 128.7 | 80.4 | 65.8 | 62.9 | 61.4 | 60.0 | 60.0 |
| 71° | 3239.7 | 2589.0 | 429.2 | 193.8 | 133.1 | 79.0 | 62.9 | 60.7 | 59.2 | 58.5 | 57.8 |
| 72.5° | 3077.4 | 2353.6 | 307.8 | 187.9 | 130.9 | 74.6 | 59.2 | 57.0 | 55.6 | 55.6 | 54.8 |
| 75° | 2760.1 | 2074.3 | 240.5 | 157.2 | 109.7 | 66.5 | 52.6 | 51.2 | 49.7 | 49.0 | 49.7 |
| 77.5° | 2261.5 | 1659.7 | 189.4 | 124.3 | 83.4 | 54.8 | 46.8 | 44.6 | 43.9 | 43.1 | 43.9 |
| 80° | 1039.0 | 723.1 | 138.2 | 96.5 | 62.1 | 43.9 | 39.5 | 38.8 | 38.0 | 37.3 | 37.3 |
| 82.5° | 250.1 | 202.5 | 73.8 | 64.3 | 42.4 | 33.6 | 31.4 | 31.4 | 31.4 | 30.7 | 30.7 |
| 85° | 54.8 | 54.8 | 30.0 | 30.0 | 25.6 | 23.4 | 24.9 | 24.9 | 24.9 | 23.4 | 23.4 |
| 87.5° | 2.9 | 8.8 | 9.5 | 13.9 | 14.6 | 13.9 | 16.8 | 17.5 | 16.8 | 16.1 | 15.4 |
| 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)