

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: P401531

Luminaire Tested: **ENT-SA1D-750-U-T2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401531
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-750-U-T2-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4272 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

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

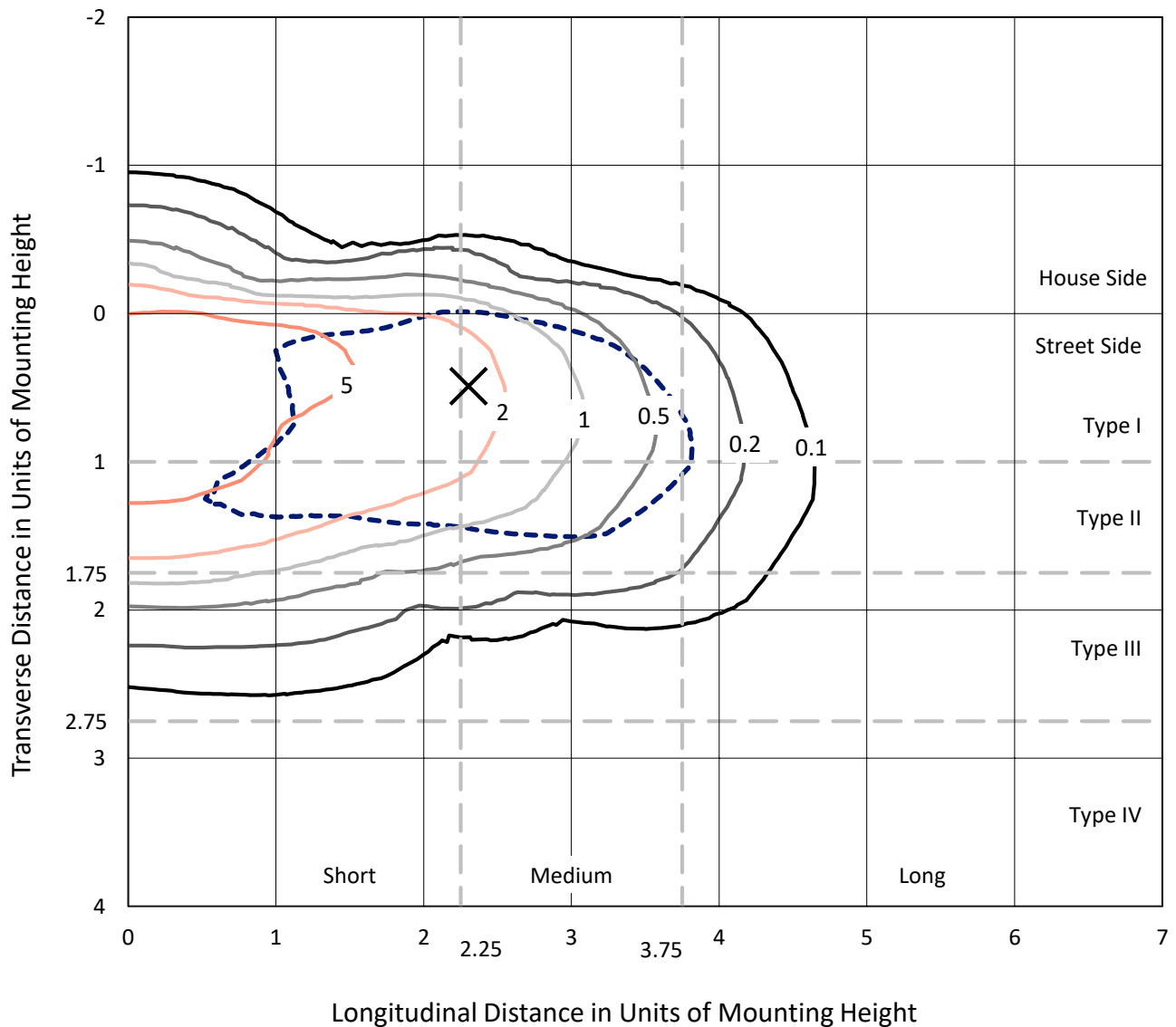


REPORT NUMBER: P401531

CATALOG NUMBER: ENT-SA1D-750-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

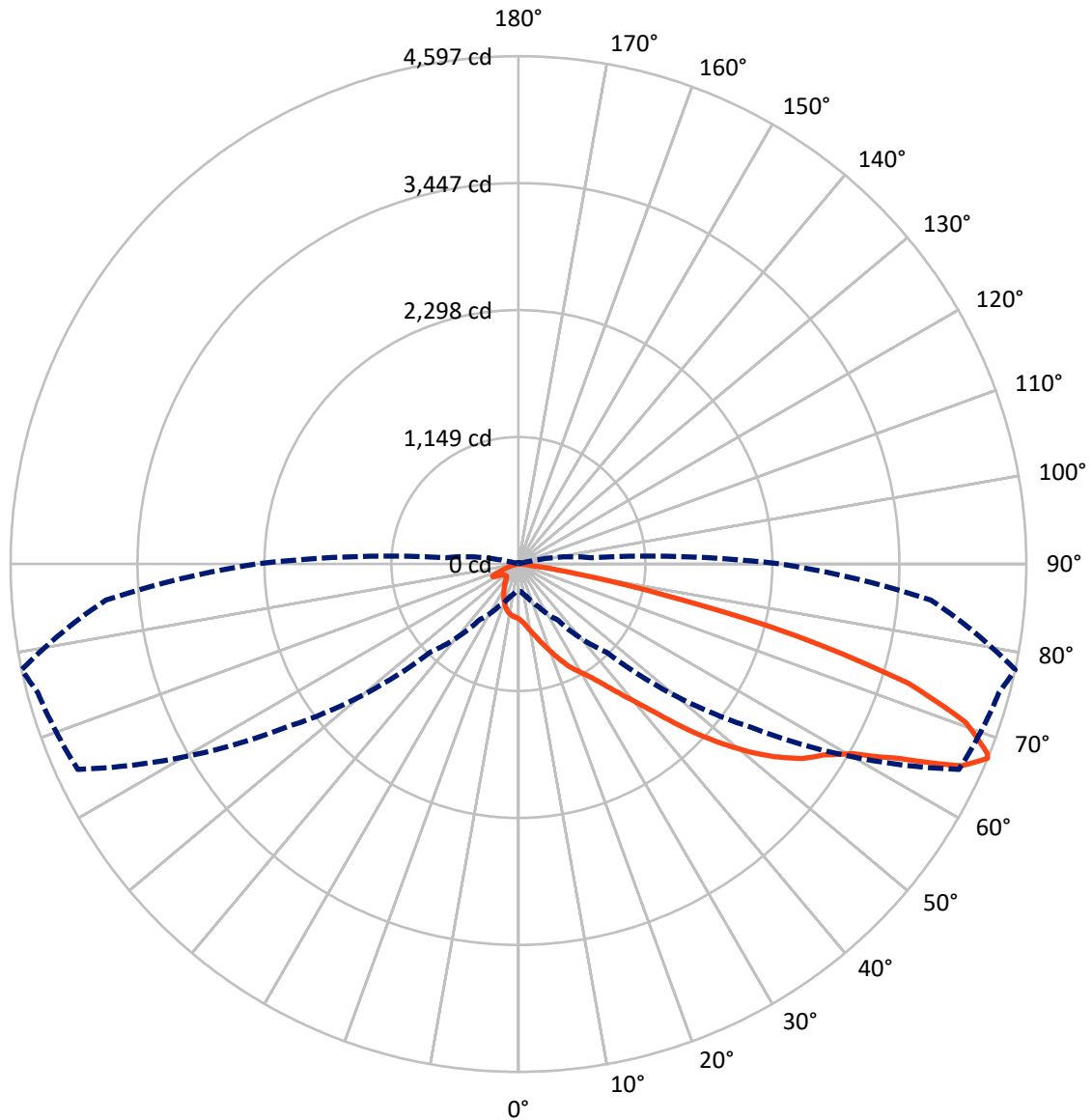


Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P401531

CATALOG NUMBER: ENT-SA1D-750-U-T2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P401531

CATALOG NUMBER: ENT-SA1D-750-U-T2-HSS

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 301.4 | 0.0 | 301.4 |
| | % Fixture | 7.1 | 0.0 | 7.1 |
| Street Side | Lumens | 3970.6 | 0.0 | 3970.6 |
| | % Fixture | 92.9 | 0.0 | 92.9 |
| Total | Lumens | 4272.0 | 0.0 | 4272.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 47.8 | 1.1 |
| 10°-20° | 137.0 | 3.2 |
| 20°-30° | 242.0 | 5.7 |
| 30°-40° | 426.6 | 10.0 |
| 40°-50° | 733.2 | 17.2 |
| 50°-60° | 1103.7 | 25.8 |
| 60°-70° | 1086.1 | 25.4 |
| 70°-80° | 474.6 | 11.1 |
| 80°-90° | 21.0 | 0.5 |
| 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° | 4272.0 | 100.0 |
| 0°-180° | 4272.0 | 100.0 |



REPORT NUMBER: P401531

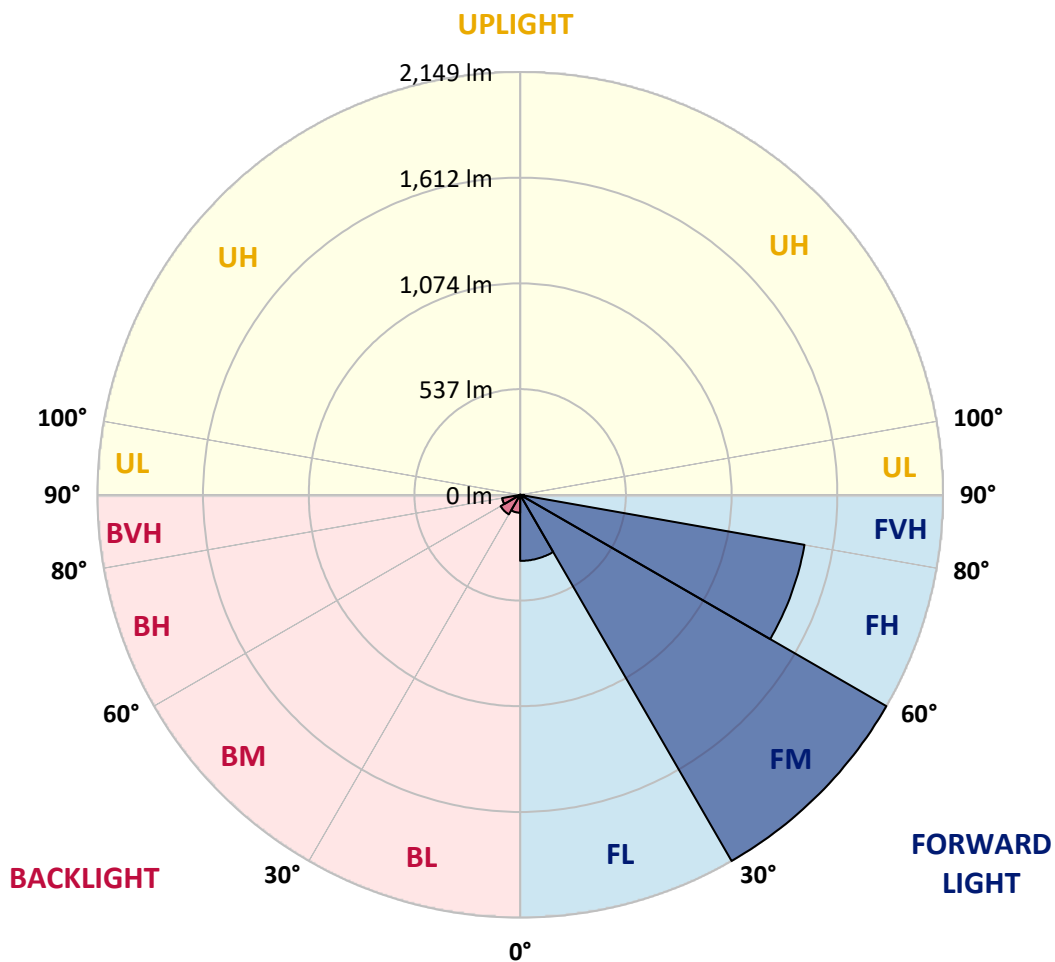
CATALOG NUMBER: ENT-SA1D-750-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 335.7 | 7.9 | | | |
| FM | (30°-60°) | 2148.9 | 50.3 | | | |
| FH | (60°-80°) | 1467.2 | 34.3 | | | G1/1800 |
| FVH | (80°-90°) | 18.9 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 91.1 | 2.1 | B0/110 | | |
| BM | (30°-60°) | 114.7 | 2.7 | B0/220 | | |
| BH | (60°-80°) | 93.5 | 2.2 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 2.2 | 0.1 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type II Medium





REPORT NUMBER: P401531

CATALOG NUMBER: ENT-SA1D-750-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 78° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 |
| 2.5° | 569.0 | 571.4 | 568.2 | 565.8 | 559.4 | 551.4 | 543.4 | 531.3 | 518.5 | 513.7 | 505.6 |
| 5° | 638.9 | 638.9 | 638.9 | 632.4 | 626.8 | 611.6 | 593.1 | 574.7 | 550.6 | 541.8 | 523.3 |
| 7.5° | 675.8 | 676.6 | 679.0 | 679.0 | 675.8 | 665.4 | 645.3 | 624.4 | 588.3 | 576.3 | 546.6 |
| 10° | 679.8 | 683.0 | 689.4 | 699.1 | 706.3 | 711.9 | 699.9 | 677.4 | 634.0 | 619.6 | 576.3 |
| 12.5° | 669.4 | 671.0 | 681.4 | 699.1 | 722.3 | 745.6 | 746.4 | 732.8 | 684.6 | 664.5 | 612.4 |
| 15° | 645.3 | 647.7 | 662.9 | 691.0 | 727.2 | 768.9 | 793.0 | 789.0 | 744.0 | 720.7 | 652.5 |
| 17.5° | 606.8 | 609.2 | 628.4 | 670.2 | 723.1 | 784.1 | 835.5 | 855.6 | 802.6 | 780.1 | 693.4 |
| 20° | 605.2 | 606.0 | 613.2 | 644.5 | 707.1 | 793.0 | 877.2 | 924.6 | 874.0 | 849.9 | 741.6 |
| 22.5° | 707.9 | 701.5 | 685.4 | 665.4 | 692.6 | 790.6 | 915.0 | 997.6 | 962.3 | 924.6 | 797.0 |
| 25° | 822.7 | 825.1 | 807.4 | 760.1 | 725.5 | 786.5 | 943.9 | 1080.3 | 1045.0 | 1007.3 | 854.0 |
| 27.5° | 943.0 | 939.0 | 923.8 | 880.4 | 822.7 | 815.4 | 964.7 | 1146.9 | 1124.4 | 1078.7 | 904.5 |
| 30° | 1060.2 | 1057.0 | 1045.8 | 1001.6 | 939.0 | 890.1 | 980.8 | 1207.1 | 1199.9 | 1149.3 | 945.5 |
| 32.5° | 1194.3 | 1199.9 | 1185.4 | 1127.6 | 1051.4 | 991.2 | 1015.3 | 1270.5 | 1291.4 | 1229.6 | 988.0 |
| 35° | 1350.0 | 1350.0 | 1320.3 | 1267.3 | 1188.6 | 1104.4 | 1084.3 | 1340.3 | 1407.8 | 1341.1 | 1055.4 |
| 37.5° | 1478.4 | 1488.8 | 1471.2 | 1394.9 | 1321.1 | 1232.8 | 1189.4 | 1426.2 | 1551.4 | 1484.0 | 1146.1 |
| 40° | 1579.5 | 1597.2 | 1598.0 | 1522.5 | 1454.3 | 1396.5 | 1336.3 | 1547.4 | 1732.0 | 1645.3 | 1254.5 |
| 42.5° | 1673.4 | 1676.6 | 1690.3 | 1646.9 | 1578.7 | 1563.5 | 1501.7 | 1691.1 | 1957.5 | 1855.6 | 1398.9 |
| 45° | 1793.0 | 1799.4 | 1791.4 | 1759.3 | 1700.7 | 1720.8 | 1686.3 | 1873.3 | 2211.1 | 2125.3 | 1569.1 |
| 47.5° | 1968.8 | 1984.0 | 1972.0 | 1914.2 | 1842.8 | 1880.5 | 1855.6 | 2054.6 | 2497.7 | 2393.3 | 1753.7 |
| 50° | 2133.3 | 2145.3 | 2158.2 | 2139.7 | 2068.3 | 2032.2 | 2001.7 | 2246.5 | 2743.3 | 2655.0 | 1935.1 |
| 52.5° | 2151.0 | 2162.2 | 2232.8 | 2297.8 | 2345.2 | 2250.5 | 2155.0 | 2440.7 | 2970.4 | 2896.6 | 2101.2 |
| 55° | 2036.2 | 2043.4 | 2161.4 | 2289.8 | 2507.3 | 2539.4 | 2380.5 | 2632.5 | 3160.6 | 3110.1 | 2212.8 |
| 57.5° | 1716.8 | 1747.2 | 1915.0 | 2111.6 | 2467.2 | 2711.2 | 2700.7 | 2855.6 | 3284.2 | 3260.9 | 2356.4 |
| 60° | 1127.6 | 1161.4 | 1362.0 | 1659.8 | 2171.8 | 2665.4 | 3052.3 | 3190.3 | 3457.6 | 3483.3 | 2608.4 |
| 62.5° | 584.3 | 623.6 | 800.2 | 1064.2 | 1573.9 | 2321.1 | 3171.9 | 3740.1 | 3789.9 | 3877.3 | 3057.9 |
| 65° | 333.9 | 341.9 | 430.2 | 623.6 | 974.4 | 1662.2 | 3028.2 | 4284.3 | 4227.3 | 4404.6 | 3631.7 |
| 67° | 248.0 | 248.0 | 309.8 | 423.8 | 617.2 | 1130.1 | 2582.7 | 4399.0 | 4502.6 | 4596.5 | 3747.3 |
| 67.5° | 222.3 | 234.4 | 287.3 | 390.9 | 553.8 | 1002.4 | 2416.6 | 4368.5 | 4520.2 | 4578.8 | 3707.2 |
| 70° | 152.5 | 160.5 | 206.3 | 280.1 | 373.2 | 521.7 | 1584.3 | 3863.7 | 4354.9 | 4295.5 | 3359.7 |
| 72.5° | 91.5 | 94.7 | 136.4 | 201.5 | 278.5 | 279.3 | 864.4 | 2932.7 | 3690.3 | 3689.5 | 2744.1 |
| 75° | 57.0 | 60.2 | 80.3 | 134.8 | 195.0 | 175.0 | 399.7 | 1995.3 | 2650.2 | 2598.8 | 1838.7 |
| 77.5° | 32.1 | 36.9 | 48.2 | 73.8 | 123.6 | 111.6 | 168.5 | 1118.0 | 1431.8 | 1343.5 | 913.4 |
| 80° | 12.8 | 15.2 | 27.3 | 35.3 | 69.8 | 66.6 | 69.0 | 393.3 | 579.5 | 522.5 | 305.8 |
| 82.5° | 3.2 | 4.0 | 9.6 | 16.9 | 27.3 | 27.3 | 21.7 | 107.5 | 137.2 | 127.6 | 78.7 |
| 85° | 0.0 | 0.0 | 0.8 | 0.8 | 0.8 | 1.6 | 5.6 | 12.0 | 14.4 | 16.9 | 12.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 | 0.8 | 1.6 | 2.4 | 2.4 | 2.4 | 2.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P401531

CATALOG NUMBER: ENT-SA1D-750-U-T2-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 | 496.0 |
| 2.5° | 499.2 | 493.6 | 482.4 | 470.3 | 458.3 | 448.7 | 440.6 | 429.4 | 427.8 | 427.8 | 427.8 |
| 5° | 509.6 | 496.8 | 471.1 | 445.4 | 419.8 | 396.5 | 379.6 | 366.0 | 353.9 | 349.9 | 353.1 |
| 7.5° | 524.9 | 501.6 | 456.7 | 411.7 | 371.6 | 338.7 | 314.6 | 295.4 | 286.5 | 281.7 | 277.7 |
| 10° | 545.0 | 508.8 | 437.4 | 371.6 | 321.0 | 281.7 | 256.0 | 237.6 | 228.7 | 223.1 | 223.9 |
| 12.5° | 566.6 | 514.5 | 413.3 | 328.3 | 272.1 | 236.0 | 214.3 | 199.0 | 184.6 | 175.8 | 178.2 |
| 15° | 588.3 | 518.5 | 383.6 | 288.1 | 234.4 | 202.3 | 171.8 | 144.5 | 134.8 | 133.2 | 132.4 |
| 17.5° | 612.4 | 517.7 | 350.7 | 250.4 | 202.3 | 157.3 | 126.8 | 123.6 | 122.8 | 122.8 | 122.0 |
| 20° | 637.3 | 513.7 | 313.0 | 219.1 | 170.2 | 119.6 | 114.8 | 113.2 | 110.8 | 110.0 | 109.2 |
| 22.5° | 664.5 | 506.4 | 278.5 | 191.8 | 126.8 | 109.2 | 102.7 | 97.9 | 93.9 | 91.5 | 92.3 |
| 25° | 689.4 | 492.8 | 244.8 | 166.1 | 108.4 | 97.9 | 89.1 | 81.9 | 77.9 | 74.6 | 75.4 |
| 27.5° | 706.3 | 468.7 | 215.9 | 134.0 | 99.5 | 86.7 | 76.2 | 69.0 | 63.4 | 61.0 | 61.0 |
| 30° | 707.9 | 434.2 | 190.2 | 110.0 | 90.7 | 76.2 | 65.0 | 57.0 | 53.8 | 52.2 | 51.4 |
| 32.5° | 706.3 | 398.9 | 171.0 | 101.1 | 82.7 | 66.6 | 55.4 | 49.8 | 46.6 | 44.9 | 44.9 |
| 35° | 714.3 | 362.8 | 153.3 | 93.1 | 73.8 | 58.6 | 49.0 | 43.3 | 40.9 | 39.3 | 39.3 |
| 37.5° | 738.4 | 337.9 | 134.8 | 85.1 | 65.8 | 51.4 | 44.1 | 39.3 | 36.9 | 35.3 | 35.3 |
| 40° | 771.3 | 317.0 | 112.4 | 77.0 | 57.8 | 46.6 | 40.1 | 36.1 | 32.9 | 31.3 | 31.3 |
| 42.5° | 829.1 | 309.0 | 93.9 | 69.0 | 50.6 | 41.7 | 36.9 | 32.1 | 28.9 | 27.3 | 27.3 |
| 45° | 915.0 | 313.0 | 85.9 | 61.8 | 45.7 | 37.7 | 32.9 | 28.1 | 24.9 | 24.1 | 24.1 |
| 47.5° | 1009.7 | 329.9 | 80.3 | 55.4 | 41.7 | 35.3 | 29.7 | 24.9 | 21.7 | 20.9 | 20.9 |
| 50° | 1115.6 | 356.4 | 75.4 | 49.0 | 37.7 | 32.1 | 26.5 | 21.7 | 19.3 | 18.5 | 18.5 |
| 52.5° | 1216.7 | 390.1 | 70.6 | 44.1 | 35.3 | 28.9 | 23.3 | 19.3 | 17.7 | 16.9 | 16.9 |
| 55° | 1293.8 | 411.7 | 66.6 | 40.9 | 32.9 | 26.5 | 20.9 | 18.5 | 16.1 | 15.2 | 15.2 |
| 57.5° | 1401.3 | 447.8 | 61.8 | 36.9 | 29.7 | 24.1 | 19.3 | 16.9 | 14.4 | 14.4 | 14.4 |
| 60° | 1619.6 | 545.0 | 54.6 | 33.7 | 26.5 | 21.7 | 18.5 | 15.2 | 13.6 | 12.8 | 12.8 |
| 62.5° | 2012.9 | 705.5 | 47.4 | 31.3 | 23.3 | 19.3 | 16.1 | 13.6 | 12.0 | 10.4 | 10.4 |
| 65° | 2391.7 | 772.1 | 40.1 | 27.3 | 20.9 | 16.9 | 14.4 | 12.0 | 8.8 | 7.2 | 7.2 |
| 67° | 2370.9 | 660.5 | 33.7 | 23.3 | 17.7 | 15.2 | 12.0 | 9.6 | 6.4 | 4.0 | 4.0 |
| 67.5° | 2314.7 | 614.8 | 32.9 | 22.5 | 16.9 | 14.4 | 12.0 | 8.8 | 5.6 | 3.2 | 3.2 |
| 70° | 1967.2 | 430.2 | 25.7 | 17.7 | 14.4 | 12.8 | 9.6 | 6.4 | 3.2 | 1.6 | 1.6 |
| 72.5° | 1598.0 | 341.1 | 20.1 | 14.4 | 12.0 | 9.6 | 8.0 | 4.0 | 2.4 | 0.8 | 0.8 |
| 75° | 1130.1 | 209.5 | 17.7 | 12.8 | 9.6 | 7.2 | 6.4 | 4.0 | 2.4 | 1.6 | 0.8 |
| 77.5° | 557.8 | 96.3 | 14.4 | 11.2 | 8.8 | 7.2 | 5.6 | 4.8 | 4.0 | 3.2 | 1.6 |
| 80° | 163.7 | 31.3 | 9.6 | 8.0 | 8.0 | 7.2 | 6.4 | 5.6 | 4.8 | 4.0 | 2.4 |
| 82.5° | 36.9 | 11.2 | 3.2 | 4.0 | 5.6 | 5.6 | 5.6 | 4.0 | 3.2 | 1.6 | 0.8 |
| 85° | 4.8 | 2.4 | 2.4 | 2.4 | 3.2 | 3.2 | 2.4 | 1.6 | 1.6 | 0.0 | 0.0 |
| 87.5° | 1.6 | 1.6 | 1.6 | 2.4 | 2.4 | 2.4 | 1.6 | 0.8 | 0.8 | 0.0 | 0.0 |
| 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)