



## IES ROAD REPORT

PHOTOMETRIC FILENAME : WPTZS-L20-850-T3-DIM-UNV\_.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM Q2016030802 improved 070120

[TESTLAB] QSSI

[ISSUEDATE] 04-20-2026

[MANUFAC] H.E. WILLIAMS, INC.

[MORE] CARTHAGE, MO. 64836

[LUMCAT] WPTZS-L20-850-T3-DIM-UNV

[LUMINAIRE] LED WALL PACK, TYPE III OPTICS, CLEAR GLASS LENS

[LAMPCAT] SAMSUNG 561B LEDS

[LAMP] 14 SAMSUNG 561B LEDS

### CHARACTERISTICS

|   |                                 |
|---|---------------------------------|
| IES Classification                              | Type III                        |
| Longitudinal Classification                     | Very Short                      |
| Lumens Per Lamp                                 | N.A. (absolute)                 |
| Total Lamp Lumens                               | N.A. (absolute)                 |
| Luminaire Lumens                                | 2166                            |
| Downward Total Efficiency                       | N.A. (absolute)                 |
| Total Luminaire Efficiency                      | N.A. (absolute)                 |
| Luminaire Efficacy Rating (LER)                 | 91                              |
| Total Luminaire Watts                           | 23.7                            |
| Ballast Factor                                  | 1.00                            |
| Upward Waste Light Ratio                        | 0.01                            |
| Maximum Candela                                 | 902.283                         |
| Maximum Candela Angle                           | 360H 32.5V                      |
| Maximum Candela (<90 Degrees Vertical)          | 902.283                         |
| Maximum Candela Angle (<90 Degrees Vertical)    | 360H 32.5V                      |
| Maximum Candela At 90 Degrees Vertical          | 2.028 (0.1% Luminaire Lumens)   |
| Maximum Candela from 80 to <90 Degrees Vertical | 182.704 (8.4% Luminaire Lumens) |
| Cutoff Classification (deprecated)              | N.A. (absolute)                 |

**IES ROAD REPORT****PHOTOMETRIC FILENAME : WPTZS-L20-850-T3-DIM-UNV\_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

|                               | Lumens   | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30)         | 308.5    | N.A.   | 14.2        |
| FM - Front-Medium (30-60)     | 866.0    | N.A.   | 40.0        |
| FH - Front-High (60-80)       | 355.4    | N.A.   | 16.4        |
| FVH - Front-Very High (80-90) | 7.9      | N.A.   | 0.4         |
| BL - Back-Low (0-30)          | 119.5    | N.A.   | 5.5         |
| BM - Back-Medium (30-60)      | 325.1    | N.A.   | 15.0        |
| BH - Back-High (60-80)        | 162.5    | N.A.   | 7.5         |
| BVH - Back-Very High (80-90)  | 6.7      | N.A.   | 0.3         |
| UL - Uplight-Low (90-100)     | 1.6      | N.A.   | 0.1         |
| UH - Uplight-High (100-180)   | 12.3     | N.A.   | 0.6         |
| Total                         | 2165.5   | N.A.   | 100.0       |
| BUG Rating                    | B1-U2-G1 |        |             |

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**CANDELA TABULATION**

| Vert.<br>Angles | Horizontal Angles |         |         |         |         |         |         |         |         |         |
|-----------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                 | 0                 | 10      | 20      | 30      | 40      | 50      | 60      | 70      | 80      | 90      |
| 0.0             | 357.222           | 357.222 | 357.222 | 357.222 | 357.222 | 357.222 | 357.222 | 357.222 | 357.222 | 357.222 |
| 2.5             | 457.070           | 460.502 | 450.908 | 452.467 | 431.873 | 425.007 | 399.810 | 392.633 | 374.300 | 358.619 |
| 5.0             | 563.868           | 564.648 | 551.932 | 547.408 | 520.025 | 497.403 | 473.140 | 440.765 | 398.328 | 365.797 |
| 7.5             | 646.873           | 644.844 | 630.880 | 627.603 | 589.924 | 560.981 | 524.394 | 494.438 | 435.070 | 380.150 |
| 10.0            | 702.572           | 702.495 | 687.985 | 678.701 | 645.624 | 613.873 | 576.194 | 540.854 | 472.828 | 401.603 |
| 12.5            | 743.061           | 739.394 | 732.295 | 724.494 | 690.560 | 658.340 | 622.220 | 581.109 | 507.622 | 425.398 |
| 15.0            | 778.478           | 774.968 | 771.691 | 765.450 | 729.018 | 699.842 | 665.518 | 621.129 | 540.542 | 445.056 |
| 17.5            | 807.577           | 805.704 | 804.846 | 795.017 | 764.280 | 729.877 | 704.680 | 658.184 | 571.436 | 471.814 |
| 20.0            | 830.044           | 833.398 | 840.342 | 825.129 | 796.654 | 765.372 | 740.175 | 693.368 | 600.534 | 493.969 |
| 22.5            | 842.682           | 854.384 | 866.086 | 850.015 | 825.597 | 795.719 | 771.614 | 726.055 | 628.227 | 520.182 |
| 25.0            | 850.951           | 864.291 | 880.985 | 868.348 | 847.206 | 820.370 | 798.995 | 753.358 | 655.454 | 545.223 |
| 27.5            | 870.532           | 876.227 | 877.943 | 880.440 | 867.724 | 849.625 | 824.506 | 775.358 | 680.262 | 563.244 |
| 30.0            | 882.858           | 877.708 | 877.865 | 887.461 | 881.220 | 867.022 | 840.107 | 799.697 | 703.899 | 585.009 |
| 32.5            | 902.283           | 878.099 | 880.283 | 885.433 | 884.496 | 873.809 | 855.008 | 819.122 | 727.069 | 607.009 |
| 35.0            | 866.319           | 873.964 | 866.865 | 873.107 | 886.135 | 879.114 | 867.567 | 833.476 | 745.791 | 623.001 |
| 37.5            | 763.032           | 792.442 | 821.151 | 853.370 | 888.708 | 891.439 | 873.419 | 846.271 | 764.748 | 638.213 |
| 40.0            | 681.510           | 713.027 | 741.267 | 820.292 | 885.042 | 883.170 | 875.213 | 859.922 | 780.116 | 649.681 |
| 42.5            | 630.178           | 657.405 | 677.453 | 751.408 | 862.185 | 868.894 | 872.638 | 867.879 | 788.074 | 658.184 |
| 45.0            | 656.000           | 655.064 | 645.624 | 685.176 | 810.697 | 874.276 | 868.192 | 869.673 | 800.009 | 671.134 |
| 47.5            | 646.014           | 664.113 | 653.269 | 650.851 | 737.834 | 866.788 | 852.589 | 864.915 | 813.896 | 683.772 |
| 50.0            | 645.781           | 672.616 | 660.603 | 659.121 | 681.900 | 845.100 | 835.661 | 842.135 | 800.400 | 674.800 |
| 52.5            | 646.950           | 682.056 | 666.297 | 671.368 | 663.723 | 777.386 | 807.733 | 794.471 | 774.968 | 675.971 |
| 55.0            | 675.815           | 696.878 | 686.893 | 695.474 | 678.701 | 697.971 | 772.705 | 766.464 | 771.223 | 684.318 |
| 57.5            | 690.169           | 727.614 | 709.360 | 704.055 | 685.410 | 647.964 | 736.664 | 730.891 | 739.082 | 673.084 |
| 60.0            | 647.028           | 677.999 | 698.594 | 716.537 | 674.098 | 632.830 | 645.000 | 679.560 | 698.048 | 657.950 |
| 62.5            | 566.988           | 606.619 | 637.745 | 683.382 | 670.666 | 594.917 | 536.798 | 630.490 | 675.112 | 657.872 |
| 65.0            | 430.234           | 485.311 | 544.521 | 601.236 | 607.788 | 542.259 | 462.375 | 582.201 | 643.128 | 654.908 |
| 67.5            | 245.971           | 310.096 | 390.760 | 498.338 | 509.884 | 478.835 | 424.539 | 535.159 | 603.187 | 639.774 |
| 70.0            | 99.777            | 137.223 | 212.972 | 350.350 | 399.732 | 406.908 | 375.392 | 447.631 | 555.053 | 619.568 |
| 72.5            | 61.551            | 72.629  | 105.627 | 180.987 | 306.586 | 318.366 | 309.551 | 334.124 | 492.488 | 577.910 |
| 75.0            | 36.977            | 44.310  | 55.934  | 91.195  | 176.774 | 226.779 | 201.972 | 211.645 | 375.159 | 456.915 |
| 77.5            | 22.467            | 27.538  | 33.389  | 46.183  | 88.622  | 131.528 | 124.429 | 131.683 | 243.474 | 323.671 |
| 80.0            | 14.589            | 16.148  | 17.709  | 24.183  | 43.375  | 58.587  | 70.835  | 77.153  | 150.328 | 182.704 |
| 82.5            | 8.035             | 8.582   | 10.531  | 13.652  | 19.425  | 24.964  | 23.793  | 34.481  | 80.586  | 79.260  |
| 85.0            | 2.965             | 3.277   | 3.510   | 5.539   | 7.880   | 9.517   | 9.596   | 12.716  | 20.751  | 19.503  |
| 87.5            | 1.092             | 1.170   | 1.248   | 1.326   | 1.404   | 1.794   | 2.028   | 2.730   | 2.965   | 3.744   |
| 90.0            | 0.780             | 0.780   | 0.780   | 0.780   | 0.702   | 0.624   | 0.780   | 0.936   | 1.092   | 1.950   |
| 92.5            | 0.702             | 0.780   | 0.702   | 0.702   | 0.702   | 0.702   | 0.780   | 0.936   | 1.170   | 1.873   |
| 95.0            | 0.780             | 0.702   | 0.702   | 0.702   | 0.702   | 0.702   | 0.780   | 1.014   | 1.170   | 1.950   |
| 97.5            | 0.702             | 0.702   | 0.702   | 0.702   | 0.624   | 0.702   | 0.859   | 1.092   | 1.248   | 2.028   |
| 100.0           | 0.624             | 0.702   | 0.702   | 0.702   | 0.702   | 0.702   | 0.859   | 1.092   | 1.248   | 2.028   |
| 102.5           | 0.624             | 0.702   | 0.624   | 0.702   | 0.780   | 0.859   | 0.936   | 1.092   | 1.326   | 2.028   |
| 105.0           | 0.624             | 0.624   | 0.702   | 0.780   | 0.780   | 0.859   | 0.936   | 1.170   | 1.404   | 1.950   |
| 107.5           | 0.702             | 0.624   | 0.702   | 0.702   | 0.702   | 0.859   | 0.936   | 1.170   | 1.404   | 1.950   |
| 110.0           | 0.546             | 0.546   | 0.702   | 0.702   | 0.780   | 0.780   | 1.014   | 1.170   | 1.404   | 1.950   |
| 112.5           | 0.468             | 0.624   | 0.702   | 0.702   | 0.702   | 0.859   | 1.014   | 1.170   | 1.404   | 1.873   |
| 115.0           | 0.390             | 0.624   | 0.702   | 0.702   | 0.780   | 0.859   | 1.014   | 1.170   | 1.404   | 1.873   |
| 117.5           | 0.390             | 0.546   | 0.624   | 0.702   | 0.702   | 0.780   | 0.936   | 1.248   | 1.404   | 1.873   |
| 120.0           | 0.390             | 0.546   | 0.624   | 0.702   | 0.702   | 0.780   | 0.936   | 1.170   | 1.404   | 1.794   |
| 122.5           | 0.390             | 0.546   | 0.624   | 0.702   | 0.780   | 0.780   | 0.936   | 1.170   | 1.482   | 1.794   |
| 125.0           | 0.390             | 0.624   | 0.702   | 0.702   | 0.780   | 0.859   | 1.014   | 1.170   | 1.482   | 1.950   |
| 127.5           | 0.468             | 0.624   | 0.702   | 0.780   | 0.780   | 0.859   | 1.014   | 1.248   | 1.561   | 2.028   |
| 130.0           | 0.468             | 0.624   | 0.702   | 0.780   | 0.780   | 0.936   | 1.092   | 1.404   | 1.638   | 2.106   |

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**CANDELA TABULATION - (Cont.)**

|       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 132.5 | 0.546 | 0.624 | 0.780 | 0.780 | 0.859 | 1.014 | 1.170 | 1.482 | 1.716 | 2.106 |
| 135.0 | 0.624 | 0.624 | 0.780 | 0.859 | 1.014 | 1.092 | 1.248 | 1.482 | 1.794 | 2.263 |
| 137.5 | 0.624 | 0.780 | 0.859 | 0.936 | 1.014 | 1.170 | 1.326 | 1.638 | 1.950 | 2.340 |
| 140.0 | 0.780 | 0.859 | 1.014 | 1.014 | 1.170 | 1.326 | 1.482 | 1.794 | 2.028 | 2.496 |
| 142.5 | 0.859 | 0.936 | 1.092 | 1.170 | 1.326 | 1.482 | 1.716 | 1.950 | 2.263 | 2.652 |
| 145.0 | 1.014 | 1.092 | 1.248 | 1.404 | 1.561 | 1.716 | 1.950 | 2.263 | 2.496 | 2.808 |
| 147.5 | 1.248 | 1.248 | 1.561 | 1.561 | 1.794 | 1.950 | 2.340 | 2.575 | 2.808 | 3.042 |
| 150.0 | 1.561 | 1.638 | 1.794 | 1.950 | 2.263 | 2.418 | 2.652 | 2.887 | 3.277 | 3.354 |
| 152.5 | 2.028 | 2.106 | 2.340 | 2.418 | 2.730 | 2.965 | 3.277 | 3.510 | 3.901 | 3.589 |
| 155.0 | 2.730 | 2.730 | 2.965 | 3.199 | 3.510 | 3.667 | 3.979 | 4.291 | 4.603 | 3.979 |
| 157.5 | 3.510 | 3.589 | 3.744 | 3.979 | 4.291 | 4.525 | 4.836 | 5.071 | 5.383 | 4.369 |
| 160.0 | 4.291 | 4.369 | 4.603 | 4.758 | 5.071 | 5.305 | 5.617 | 5.850 | 6.085 | 4.915 |
| 162.5 | 5.071 | 5.071 | 5.305 | 5.460 | 5.695 | 6.007 | 6.241 | 6.475 | 6.631 | 5.460 |
| 165.0 | 5.695 | 5.773 | 5.929 | 6.162 | 6.397 | 6.553 | 6.787 | 7.021 | 7.099 | 5.929 |
| 167.5 | 6.241 | 6.319 | 6.397 | 6.553 | 6.787 | 7.021 | 7.177 | 7.333 | 7.568 | 6.397 |
| 170.0 | 6.553 | 6.631 | 6.787 | 6.866 | 7.099 | 7.333 | 7.411 | 7.568 | 7.723 | 6.787 |
| 172.5 | 6.866 | 6.866 | 7.021 | 7.099 | 7.255 | 7.411 | 7.568 | 7.723 | 7.723 | 7.021 |
| 175.0 | 6.943 | 7.021 | 7.177 | 7.255 | 7.411 | 7.489 | 7.568 | 7.723 | 7.723 | 7.177 |
| 177.5 | 7.099 | 7.099 | 7.255 | 7.411 | 7.489 | 7.568 | 7.568 | 7.723 | 7.801 | 7.255 |
| 180.0 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 |

| Vert.<br>Angles | Horizontal Angles |            |            |            |            |            |            |            |            |            |
|-----------------|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                 | <u>100</u>        | <u>110</u> | <u>120</u> | <u>130</u> | <u>140</u> | <u>150</u> | <u>160</u> | <u>170</u> | <u>180</u> | <u>190</u> |
| 0.0             | 357.222           | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    |
| 2.5             | 351.988           | 342.549    | 331.471    | 324.997    | 319.145    | 320.082    | 310.565    | 313.840    | 317.195    | 317.274    |
| 5.0             | 346.293           | 330.769    | 316.337    | 307.444    | 302.842    | 299.253    | 290.281    | 291.920    | 290.828    | 292.154    |
| 7.5             | 343.875           | 322.890    | 307.288    | 294.807    | 289.345    | 282.793    | 276.239    | 276.551    | 274.211    | 275.615    |
| 10.0            | 343.018           | 316.572    | 298.394    | 283.026    | 275.772    | 268.594    | 266.331    | 262.354    | 260.091    | 262.666    |
| 12.5            | 346.762           | 312.593    | 291.452    | 273.119    | 265.084    | 257.439    | 254.631    | 251.744    | 248.155    | 251.432    |
| 15.0            | 355.031           | 309.784    | 284.352    | 267.190    | 257.204    | 247.218    | 244.410    | 241.524    | 238.950    | 241.758    |
| 17.5            | 366.655           | 308.537    | 277.721    | 263.368    | 247.063    | 237.857    | 233.488    | 232.474    | 232.397    | 233.333    |
| 20.0            | 377.732           | 309.394    | 273.119    | 256.268    | 239.028    | 232.007    | 226.779    | 224.439    | 227.326    | 226.155    |
| 22.5            | 392.243           | 313.373    | 268.672    | 252.523    | 234.737    | 226.155    | 222.567    | 220.071    | 224.284    | 221.007    |
| 25.0            | 405.270           | 314.387    | 268.672    | 249.013    | 231.070    | 221.631    | 218.432    | 214.220    | 216.248    | 218.121    |
| 27.5            | 418.767           | 317.741    | 268.126    | 241.602    | 228.730    | 218.744    | 210.866    | 209.462    | 207.355    | 211.178    |
| 30.0            | 432.419           | 318.288    | 267.970    | 241.134    | 226.624    | 212.737    | 207.746    | 197.526    | 201.660    | 207.121    |
| 32.5            | 447.084           | 322.969    | 269.218    | 241.602    | 220.383    | 208.448    | 206.419    | 195.420    | 200.021    | 204.079    |
| 35.0            | 461.673           | 331.706    | 273.821    | 243.552    | 215.390    | 206.887    | 200.802    | 199.319    | 200.021    | 202.051    |
| 37.5            | 476.885           | 340.911    | 279.671    | 241.680    | 205.716    | 206.107    | 198.540    | 195.420    | 192.065    | 199.632    |
| 40.0            | 493.112           | 347.464    | 282.012    | 239.808    | 219.056    | 206.809    | 194.327    | 185.746    | 183.249    | 193.079    |
| 42.5            | 511.288           | 354.251    | 283.572    | 243.786    | 222.880    | 202.128    | 184.342    | 180.363    | 174.044    | 187.150    |
| 45.0            | 522.835           | 364.002    | 287.082    | 244.957    | 217.809    | 193.469    | 181.221    | 175.916    | 173.498    | 182.002    |
| 47.5            | 535.550           | 373.676    | 291.842    | 239.730    | 204.624    | 186.994    | 179.427    | 172.328    | 167.647    | 179.505    |
| 50.0            | 535.784           | 381.789    | 288.331    | 243.786    | 211.880    | 186.603    | 179.817    | 158.831    | 159.534    | 167.959    |
| 52.5            | 528.373           | 374.768    | 285.678    | 239.495    | 215.234    | 177.945    | 148.222    | 144.634    | 147.910    | 150.875    |
| 55.0            | 538.671           | 372.974    | 261.417    | 240.276    | 207.355    | 146.272    | 126.223    | 140.577    | 137.535    | 144.478    |
| 57.5            | 533.990           | 369.854    | 272.338    | 229.199    | 176.697    | 144.321    | 110.075    | 133.790    | 135.662    | 139.641    |
| 60.0            | 519.011           | 350.584    | 263.211    | 207.667    | 148.066    | 123.180    | 104.613    | 117.798    | 123.258    | 128.953    |
| 62.5            | 519.870           | 340.053    | 245.425    | 163.512    | 111.244    | 107.578    | 102.819    | 108.748    | 116.315    | 120.216    |
| 65.0            | 521.664           | 332.251    | 220.149    | 131.293    | 95.408     | 101.650    | 92.288     | 103.131    | 102.039    | 108.046    |
| 67.5            | 513.706           | 311.891    | 170.767    | 111.713    | 87.997     | 82.146     | 78.791     | 83.160     | 85.033     | 91.274     |
| 70.0            | 491.161           | 278.424    | 133.634    | 96.969     | 66.700     | 61.941     | 58.821     | 60.615     | 67.714     | 72.784     |
| 72.5            | 454.105           | 220.617    | 101.883    | 76.608     | 49.772     | 46.651     | 39.630     | 47.587     | 50.707     | 51.721     |
| 75.0            | 345.436           | 122.868    | 71.303     | 53.204     | 36.042     | 30.580     | 25.822     | 31.049     | 29.800     | 32.453     |
| 77.5            | 236.531           | 66.232     | 42.751     | 34.403     | 23.326     | 20.596     | 19.191     | 19.503     | 18.723     | 21.531     |

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**CANDELA TABULATION - (Cont.)**

|       |         |        |        |        |        |        |        |        |        |        |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 80.0  | 131.995 | 38.615 | 28.474 | 21.219 | 14.198 | 14.666 | 14.901 | 13.262 | 12.794 | 14.354 |
| 82.5  | 47.119  | 22.389 | 15.915 | 12.716 | 8.347  | 8.894  | 8.347  | 7.723  | 7.880  | 8.347  |
| 85.0  | 12.794  | 8.503  | 8.270  | 6.787  | 5.617  | 5.305  | 5.148  | 5.071  | 5.773  | 5.773  |
| 87.5  | 4.056   | 4.056  | 4.213  | 4.056  | 3.822  | 3.510  | 3.432  | 3.510  | 3.822  | 3.589  |
| 90.0  | 2.028   | 1.950  | 2.028  | 1.873  | 1.794  | 1.716  | 1.638  | 1.561  | 1.561  | 1.561  |
| 92.5  | 2.028   | 1.950  | 1.950  | 1.873  | 1.716  | 1.638  | 1.638  | 1.561  | 1.561  | 1.561  |
| 95.0  | 2.028   | 2.106  | 2.028  | 2.028  | 1.873  | 1.794  | 1.638  | 1.716  | 1.716  | 1.716  |
| 97.5  | 2.106   | 2.263  | 2.185  | 2.106  | 1.950  | 1.873  | 1.794  | 1.873  | 1.794  | 1.873  |
| 100.0 | 2.263   | 2.263  | 2.263  | 2.263  | 2.106  | 1.950  | 1.873  | 1.873  | 1.794  | 1.950  |
| 102.5 | 2.185   | 2.340  | 2.418  | 2.340  | 2.185  | 2.028  | 2.028  | 1.950  | 1.950  | 2.028  |
| 105.0 | 2.185   | 2.340  | 2.418  | 2.340  | 2.263  | 2.106  | 2.028  | 2.028  | 2.028  | 2.028  |
| 107.5 | 2.263   | 2.340  | 2.418  | 2.340  | 2.263  | 2.185  | 2.106  | 2.106  | 2.106  | 2.106  |
| 110.0 | 2.106   | 2.340  | 2.418  | 2.418  | 2.340  | 2.263  | 2.185  | 2.106  | 2.185  | 2.185  |
| 112.5 | 2.185   | 2.340  | 2.418  | 2.418  | 2.263  | 2.263  | 2.185  | 2.106  | 2.106  | 2.185  |
| 115.0 | 2.106   | 2.340  | 2.418  | 2.340  | 2.263  | 2.185  | 2.185  | 2.106  | 2.106  | 2.185  |
| 117.5 | 2.106   | 2.418  | 2.340  | 2.340  | 2.340  | 2.106  | 2.106  | 2.106  | 2.106  | 2.106  |
| 120.0 | 2.106   | 2.340  | 2.340  | 2.340  | 2.263  | 2.185  | 2.106  | 2.028  | 2.106  | 2.106  |
| 122.5 | 2.106   | 2.340  | 2.340  | 2.340  | 2.263  | 2.185  | 2.106  | 2.028  | 2.106  | 2.106  |
| 125.0 | 2.185   | 2.340  | 2.496  | 2.418  | 2.418  | 2.340  | 2.263  | 2.263  | 2.263  | 2.263  |
| 127.5 | 2.263   | 2.496  | 2.575  | 2.575  | 2.575  | 2.575  | 2.496  | 2.418  | 2.418  | 2.496  |
| 130.0 | 2.340   | 2.652  | 2.808  | 2.808  | 2.887  | 2.808  | 2.808  | 2.730  | 2.730  | 2.730  |
| 132.5 | 2.418   | 2.730  | 2.887  | 3.042  | 3.042  | 3.042  | 3.042  | 3.042  | 3.042  | 3.042  |
| 135.0 | 2.575   | 2.808  | 2.965  | 3.199  | 3.277  | 3.354  | 3.354  | 3.354  | 3.354  | 3.277  |
| 137.5 | 2.652   | 2.887  | 3.120  | 3.277  | 3.432  | 3.510  | 3.589  | 3.589  | 3.589  | 3.589  |
| 140.0 | 2.808   | 3.042  | 3.277  | 3.432  | 3.667  | 3.744  | 3.822  | 3.822  | 3.901  | 3.901  |
| 142.5 | 2.965   | 3.277  | 3.432  | 3.667  | 3.822  | 3.979  | 4.056  | 4.134  | 4.134  | 4.134  |
| 145.0 | 3.120   | 3.432  | 3.589  | 3.901  | 4.056  | 4.213  | 4.291  | 4.369  | 4.369  | 4.369  |
| 147.5 | 3.354   | 3.589  | 3.822  | 4.134  | 4.291  | 4.525  | 4.603  | 4.603  | 4.603  | 4.681  |
| 150.0 | 3.589   | 3.822  | 4.056  | 4.446  | 4.603  | 4.681  | 4.836  | 4.915  | 4.915  | 4.915  |
| 152.5 | 3.822   | 4.056  | 4.369  | 4.603  | 4.915  | 5.071  | 5.071  | 5.148  | 5.227  | 5.148  |
| 155.0 | 4.213   | 4.525  | 4.681  | 4.915  | 5.148  | 5.305  | 5.460  | 5.460  | 5.460  | 5.460  |
| 157.5 | 4.603   | 4.836  | 4.993  | 5.148  | 5.460  | 5.539  | 5.695  | 5.695  | 5.773  | 5.617  |
| 160.0 | 5.071   | 5.227  | 5.305  | 5.539  | 5.695  | 5.773  | 5.929  | 5.929  | 5.929  | 5.929  |
| 162.5 | 5.539   | 5.617  | 5.695  | 5.850  | 5.929  | 6.085  | 6.162  | 6.162  | 6.241  | 6.241  |
| 165.0 | 6.007   | 6.007  | 6.085  | 6.085  | 6.241  | 6.319  | 6.319  | 6.397  | 6.475  | 6.475  |
| 167.5 | 6.397   | 6.319  | 6.319  | 6.319  | 6.397  | 6.475  | 6.553  | 6.631  | 6.631  | 6.631  |
| 170.0 | 6.709   | 6.631  | 6.553  | 6.631  | 6.631  | 6.709  | 6.709  | 6.709  | 6.787  | 6.866  |
| 172.5 | 6.866   | 6.866  | 6.787  | 6.787  | 6.787  | 6.787  | 6.787  | 6.787  | 6.866  | 7.021  |
| 175.0 | 7.021   | 6.943  | 6.866  | 6.866  | 6.787  | 6.787  | 6.787  | 6.866  | 7.021  | 7.099  |
| 177.5 | 7.099   | 6.943  | 6.866  | 6.866  | 6.787  | 6.787  | 6.787  | 6.943  | 7.021  | 7.177  |
| 180.0 | 7.174   | 7.174  | 7.174  | 7.174  | 7.174  | 7.174  | 7.174  | 7.174  | 7.174  | 7.174  |

**Vert.  
Angles**

**Horizontal Angles**

|      | <u>200</u> | <u>210</u> | <u>220</u> | <u>230</u> | <u>240</u> | <u>250</u> | <u>260</u> | <u>270</u> | <u>280</u> | <u>290</u> |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0.0  | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    |
| 2.5  | 315.948    | 321.798    | 318.912    | 322.500    | 328.274    | 340.131    | 349.336    | 358.776    | 376.718    | 392.711    |
| 5.0  | 294.416    | 301.749    | 298.863    | 304.323    | 311.734    | 326.244    | 342.471    | 365.875    | 402.696    | 440.922    |
| 7.5  | 279.516    | 283.807    | 284.431    | 291.920    | 300.501    | 317.429    | 340.131    | 380.385    | 442.170    | 496.778    |
| 10.0 | 267.268    | 270.232    | 273.197    | 281.154    | 292.466    | 311.891    | 342.783    | 405.739    | 484.687    | 546.784    |
| 12.5 | 256.424    | 260.013    | 262.197    | 272.105    | 286.537    | 307.522    | 347.464    | 426.880    | 522.444    | 592.499    |
| 15.0 | 246.829    | 250.885    | 253.225    | 265.239    | 279.594    | 305.650    | 356.436    | 452.467    | 557.237    | 635.093    |
| 17.5 | 236.063    | 242.382    | 246.906    | 260.013    | 274.913    | 305.260    | 365.406    | 477.431    | 590.002    | 673.631    |
| 20.0 | 230.213    | 233.333    | 241.524    | 255.956    | 270.154    | 306.742    | 379.215    | 503.175    | 620.816    | 705.382    |
| 22.5 | 225.844    | 229.199    | 236.843    | 252.056    | 268.984    | 311.345    | 397.079    | 529.153    | 648.589    | 733.699    |
| 25.0 | 221.631    | 223.971    | 234.737    | 251.432    | 267.424    | 317.274    | 415.412    | 553.882    | 674.177    | 757.961    |

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : WPTZS-L20-850-T3-DIM-UNV\_.IES**

**CANDELA TABULATION - (Cont.)**

|       |         |         |         |         |         |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 27.5  | 214.766 | 220.695 | 231.772 | 249.247 | 268.984 | 323.514 | 431.405 | 572.762 | 699.218 | 784.407 |
| 30.0  | 211.723 | 218.979 | 229.432 | 245.737 | 270.077 | 331.237 | 447.943 | 593.513 | 724.572 | 809.058 |
| 32.5  | 210.866 | 214.610 | 224.908 | 244.878 | 270.077 | 338.258 | 468.070 | 614.497 | 747.508 | 824.427 |
| 35.0  | 208.057 | 215.078 | 222.178 | 246.439 | 272.807 | 345.981 | 487.650 | 636.575 | 768.259 | 841.590 |
| 37.5  | 205.716 | 212.504 | 220.460 | 247.765 | 275.693 | 356.981 | 505.516 | 656.936 | 785.032 | 849.234 |
| 40.0  | 198.930 | 210.709 | 223.582 | 243.943 | 280.373 | 362.988 | 520.494 | 674.567 | 793.534 | 856.022 |
| 42.5  | 190.739 | 202.596 | 224.751 | 245.347 | 285.913 | 369.931 | 529.621 | 679.170 | 788.931 | 858.128 |
| 45.0  | 186.370 | 197.838 | 217.965 | 249.715 | 294.807 | 367.903 | 523.302 | 670.823 | 765.762 | 830.434 |
| 47.5  | 185.668 | 194.171 | 211.723 | 247.218 | 296.600 | 372.037 | 534.145 | 680.574 | 766.074 | 790.726 |
| 50.0  | 182.235 | 192.455 | 207.667 | 238.638 | 289.345 | 384.598 | 546.082 | 688.375 | 766.464 | 776.372 |
| 52.5  | 161.563 | 188.086 | 206.419 | 224.361 | 278.969 | 392.243 | 549.592 | 680.964 | 749.926 | 755.387 |
| 55.0  | 148.924 | 165.775 | 199.866 | 213.986 | 272.495 | 381.321 | 536.954 | 663.177 | 713.182 | 717.317 |
| 57.5  | 144.009 | 150.406 | 167.335 | 209.383 | 255.566 | 367.044 | 539.060 | 665.673 | 691.964 | 682.133 |
| 60.0  | 135.194 | 139.485 | 142.683 | 190.817 | 240.510 | 362.443 | 541.556 | 668.560 | 678.467 | 659.199 |
| 62.5  | 126.223 | 127.705 | 129.110 | 164.215 | 223.816 | 339.974 | 541.245 | 666.610 | 655.454 | 627.058 |
| 65.0  | 112.181 | 107.500 | 115.692 | 135.974 | 201.504 | 316.650 | 533.210 | 657.248 | 621.363 | 570.577 |
| 67.5  | 93.692  | 89.167  | 96.890  | 114.911 | 171.469 | 294.962 | 519.558 | 631.816 | 573.152 | 473.687 |
| 70.0  | 72.863  | 68.572  | 75.516  | 89.948  | 126.769 | 254.084 | 482.424 | 586.804 | 501.927 | 365.953 |
| 72.5  | 47.977  | 48.835  | 55.467  | 65.608  | 90.572  | 196.979 | 394.271 | 479.460 | 390.214 | 252.680 |
| 75.0  | 30.892  | 34.871  | 39.396  | 46.417  | 55.934  | 110.309 | 284.040 | 364.861 | 275.615 | 150.718 |
| 77.5  | 21.687  | 24.183  | 25.978  | 29.488  | 35.963  | 59.835  | 189.413 | 247.531 | 179.582 | 91.352  |
| 80.0  | 14.822  | 17.397  | 16.460  | 18.099  | 23.793  | 36.275  | 103.287 | 134.415 | 94.550  | 46.183  |
| 82.5  | 9.205   | 10.376  | 9.439   | 11.936  | 12.950  | 19.191  | 45.793  | 51.956  | 34.949  | 18.099  |
| 85.0  | 5.850   | 6.241   | 6.319   | 6.241   | 6.787   | 8.113   | 9.674   | 9.986   | 9.205   | 5.460   |
| 87.5  | 3.744   | 3.744   | 3.822   | 3.667   | 3.277   | 3.199   | 3.120   | 2.887   | 2.496   | 2.340   |
| 90.0  | 1.638   | 1.638   | 1.716   | 1.794   | 1.873   | 1.794   | 1.716   | 1.873   | 1.716   | 1.482   |
| 92.5  | 1.638   | 1.716   | 1.794   | 1.950   | 1.950   | 1.950   | 1.794   | 1.950   | 1.716   | 1.482   |
| 95.0  | 1.716   | 1.873   | 1.950   | 2.028   | 2.106   | 2.028   | 1.950   | 1.950   | 1.794   | 1.482   |
| 97.5  | 1.873   | 1.950   | 2.106   | 2.185   | 2.263   | 2.185   | 2.028   | 2.028   | 1.716   | 1.482   |
| 100.0 | 1.950   | 2.028   | 2.185   | 2.263   | 2.418   | 2.340   | 2.106   | 2.028   | 1.716   | 1.404   |
| 102.5 | 2.028   | 2.185   | 2.340   | 2.340   | 2.418   | 2.340   | 2.185   | 2.028   | 1.716   | 1.404   |
| 105.0 | 2.185   | 2.263   | 2.418   | 2.418   | 2.496   | 2.418   | 2.263   | 1.950   | 1.716   | 1.326   |
| 107.5 | 2.185   | 2.340   | 2.418   | 2.496   | 2.496   | 2.496   | 2.263   | 1.873   | 1.561   | 1.326   |
| 110.0 | 2.263   | 2.340   | 2.418   | 2.496   | 2.575   | 2.496   | 2.185   | 1.873   | 1.638   | 1.248   |
| 112.5 | 2.263   | 2.340   | 2.418   | 2.418   | 2.575   | 2.418   | 2.185   | 1.873   | 1.561   | 1.248   |
| 115.0 | 2.185   | 2.340   | 2.340   | 2.496   | 2.575   | 2.418   | 2.185   | 1.873   | 1.561   | 1.170   |
| 117.5 | 2.185   | 2.263   | 2.418   | 2.496   | 2.496   | 2.418   | 2.185   | 1.873   | 1.482   | 1.170   |
| 120.0 | 2.185   | 2.263   | 2.418   | 2.418   | 2.496   | 2.418   | 2.185   | 1.873   | 1.482   | 1.092   |
| 122.5 | 2.185   | 2.263   | 2.340   | 2.418   | 2.418   | 2.340   | 2.185   | 1.873   | 1.482   | 1.092   |
| 125.0 | 2.340   | 2.418   | 2.418   | 2.496   | 2.575   | 2.418   | 2.185   | 1.950   | 1.482   | 1.170   |
| 127.5 | 2.496   | 2.652   | 2.652   | 2.730   | 2.730   | 2.496   | 2.263   | 1.950   | 1.482   | 1.170   |
| 130.0 | 2.808   | 2.887   | 2.887   | 2.887   | 2.808   | 2.652   | 2.340   | 1.950   | 1.561   | 1.248   |
| 132.5 | 3.042   | 3.120   | 3.120   | 3.120   | 2.965   | 2.808   | 2.418   | 1.873   | 1.561   | 1.248   |
| 135.0 | 3.277   | 3.354   | 3.354   | 3.354   | 3.120   | 2.808   | 2.575   | 1.950   | 1.561   | 1.326   |
| 137.5 | 3.667   | 3.589   | 3.589   | 3.432   | 3.277   | 2.965   | 2.652   | 2.028   | 1.716   | 1.326   |
| 140.0 | 3.901   | 3.822   | 3.744   | 3.589   | 3.354   | 3.120   | 2.808   | 2.185   | 1.873   | 1.482   |
| 142.5 | 4.134   | 4.056   | 3.979   | 3.744   | 3.510   | 3.277   | 3.042   | 2.340   | 2.028   | 1.716   |
| 145.0 | 4.369   | 4.291   | 4.134   | 3.979   | 3.744   | 3.510   | 3.199   | 2.575   | 2.263   | 1.950   |
| 147.5 | 4.603   | 4.603   | 4.369   | 4.213   | 3.901   | 3.667   | 3.432   | 2.808   | 2.496   | 2.185   |
| 150.0 | 4.836   | 4.758   | 4.603   | 4.446   | 4.213   | 3.979   | 3.744   | 3.199   | 2.808   | 2.575   |
| 152.5 | 5.071   | 4.993   | 4.915   | 4.836   | 4.525   | 4.369   | 4.134   | 3.667   | 3.277   | 2.965   |
| 155.0 | 5.383   | 5.305   | 5.148   | 5.148   | 4.915   | 4.758   | 4.603   | 4.291   | 3.901   | 3.667   |
| 157.5 | 5.617   | 5.617   | 5.460   | 5.460   | 5.305   | 5.227   | 5.071   | 4.993   | 4.681   | 4.369   |
| 160.0 | 5.929   | 5.929   | 5.850   | 5.850   | 5.773   | 5.695   | 5.539   | 5.617   | 5.305   | 5.071   |
| 162.5 | 6.162   | 6.162   | 6.162   | 6.085   | 6.162   | 6.085   | 6.085   | 6.162   | 5.850   | 5.773   |
| 165.0 | 6.475   | 6.475   | 6.475   | 6.475   | 6.475   | 6.553   | 6.553   | 6.553   | 6.397   | 6.162   |

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : WPTZS-L20-850-T3-DIM-UNV\_.IES**

**CANDELA TABULATION - (Cont.)**

|       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 167.5 | 6.709 | 6.787 | 6.787 | 6.787 | 6.787 | 6.943 | 7.021 | 6.866 | 6.631 | 6.475 |
| 170.0 | 6.943 | 6.943 | 7.099 | 7.099 | 7.177 | 7.255 | 7.333 | 6.943 | 6.787 | 6.709 |
| 172.5 | 7.099 | 7.177 | 7.255 | 7.255 | 7.411 | 7.411 | 7.489 | 7.021 | 6.866 | 6.787 |
| 175.0 | 7.177 | 7.333 | 7.333 | 7.411 | 7.411 | 7.568 | 7.568 | 7.099 | 6.866 | 6.787 |
| 177.5 | 7.255 | 7.411 | 7.411 | 7.411 | 7.489 | 7.645 | 7.801 | 7.177 | 7.021 | 6.866 |
| 180.0 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 |

**Vert. Angles**      **Horizontal Angles**

|       | <u>300</u> | <u>310</u> | <u>320</u> | <u>330</u> | <u>340</u> | <u>350</u> | <u>360</u> |
|-------|------------|------------|------------|------------|------------|------------|------------|
| 0.0   | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    | 357.222    |
| 2.5   | 403.008    | 418.298    | 427.659    | 446.694    | 443.574    | 458.319    | 457.070    |
| 5.0   | 488.899    | 495.608    | 515.033    | 542.259    | 544.912    | 562.620    | 563.868    |
| 7.5   | 532.741    | 565.506    | 600.222    | 622.533    | 626.746    | 645.000    | 646.873    |
| 10.0  | 589.378    | 624.171    | 651.709    | 681.588    | 682.680    | 700.623    | 702.572    |
| 12.5  | 638.291    | 672.149    | 698.204    | 727.225    | 725.040    | 742.983    | 743.061    |
| 15.0  | 681.119    | 713.182    | 738.849    | 766.152    | 762.564    | 780.351    | 778.478    |
| 17.5  | 719.267    | 746.884    | 777.074    | 795.875    | 796.342    | 807.109    | 807.577    |
| 20.0  | 752.422    | 776.138    | 809.527    | 817.406    | 829.966    | 834.802    | 830.044    |
| 22.5  | 779.804    | 794.002    | 829.888    | 836.830    | 856.646    | 852.511    | 842.682    |
| 25.0  | 807.889    | 811.790    | 849.469    | 854.539    | 866.553    | 867.567    | 850.951    |
| 27.5  | 831.214    | 837.221    | 856.957    | 863.978    | 863.276    | 876.773    | 870.532    |
| 30.0  | 843.852    | 861.248    | 859.844    | 869.985    | 863.667    | 871.624    | 882.858    |
| 32.5  | 853.525    | 872.794    | 863.978    | 872.560    | 869.518    | 873.809    | 902.283    |
| 35.0  | 861.248    | 874.511    | 861.795    | 862.262    | 862.809    | 854.539    | 866.319    |
| 37.5  | 867.022    | 870.844    | 867.879    | 839.640    | 788.386    | 773.018    | 763.032    |
| 40.0  | 860.781    | 861.717    | 869.908    | 780.896    | 721.140    | 708.112    | 681.510    |
| 42.5  | 859.689    | 855.476    | 840.654    | 707.410    | 660.680    | 661.851    | 630.178    |
| 45.0  | 847.128    | 861.795    | 755.621    | 650.461    | 643.752    | 665.361    | 656.000    |
| 47.5  | 819.903    | 831.994    | 675.112    | 640.164    | 647.964    | 665.830    | 646.014    |
| 50.0  | 777.386    | 759.443    | 635.561    | 646.717    | 655.766    | 666.765    | 645.781    |
| 52.5  | 764.748    | 688.063    | 651.007    | 660.290    | 661.694    | 676.126    | 646.950    |
| 55.0  | 744.075    | 641.802    | 668.560    | 680.652    | 676.985    | 694.772    | 675.815    |
| 57.5  | 662.241    | 629.788    | 674.800    | 691.105    | 708.502    | 719.657    | 690.169    |
| 60.0  | 580.016    | 617.228    | 673.553    | 709.360    | 681.510    | 658.184    | 647.028    |
| 62.5  | 527.436    | 583.762    | 668.716    | 663.255    | 620.192    | 591.094    | 566.988    |
| 65.0  | 505.438    | 551.152    | 572.605    | 584.152    | 525.955    | 467.290    | 430.234    |
| 67.5  | 448.567    | 475.950    | 474.779    | 468.070    | 363.457    | 285.757    | 245.971    |
| 70.0  | 362.754    | 387.874    | 367.825    | 298.082    | 173.888    | 116.784    | 99.777     |
| 72.5  | 257.439    | 292.622    | 237.936    | 127.237    | 77.700     | 65.686     | 61.551     |
| 75.0  | 153.761    | 192.845    | 111.869    | 63.657     | 44.779     | 40.566     | 36.977     |
| 77.5  | 86.514     | 92.600     | 53.126     | 31.204     | 26.914     | 24.808     | 22.467     |
| 80.0  | 46.105     | 35.573     | 26.134     | 16.695     | 14.744     | 14.979     | 14.589     |
| 82.5  | 16.617     | 13.184     | 10.220     | 9.596      | 8.737      | 7.880      | 8.035      |
| 85.0  | 5.539      | 4.446      | 4.446      | 3.589      | 3.199      | 3.199      | 2.965      |
| 87.5  | 1.950      | 1.638      | 1.404      | 1.404      | 1.170      | 1.092      | 1.092      |
| 90.0  | 1.170      | 1.014      | 0.936      | 0.936      | 0.859      | 0.780      | 0.780      |
| 92.5  | 1.170      | 1.092      | 0.936      | 0.859      | 0.780      | 0.780      | 0.702      |
| 95.0  | 1.092      | 1.014      | 0.859      | 0.859      | 0.780      | 0.702      | 0.780      |
| 97.5  | 1.170      | 0.936      | 0.936      | 0.780      | 0.702      | 0.702      | 0.702      |
| 100.0 | 1.092      | 0.936      | 0.780      | 0.702      | 0.624      | 0.624      | 0.624      |
| 102.5 | 1.092      | 0.859      | 0.780      | 0.702      | 0.624      | 0.624      | 0.624      |
| 105.0 | 1.092      | 0.780      | 0.702      | 0.702      | 0.624      | 0.624      | 0.624      |
| 107.5 | 1.014      | 0.780      | 0.546      | 0.624      | 0.624      | 0.624      | 0.702      |
| 110.0 | 1.014      | 0.702      | 0.468      | 0.468      | 0.468      | 0.546      | 0.546      |
| 112.5 | 0.936      | 0.624      | 0.468      | 0.390      | 0.390      | 0.468      | 0.468      |

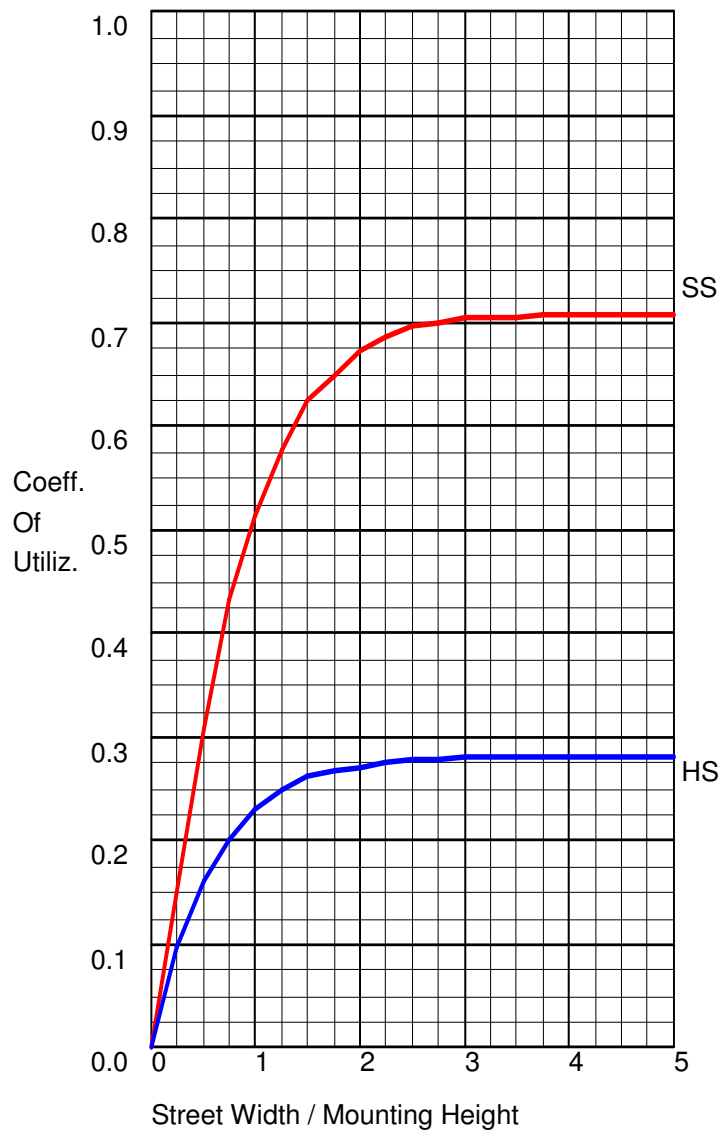
IES ROAD REPORT  
PHOTOMETRIC FILENAME : WPTZS-L20-850-T3-DIM-UNV\_.IES

CANDELA TABULATION - (Cont.)

|       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 115.0 | 0.859 | 0.546 | 0.468 | 0.390 | 0.312 | 0.390 | 0.390 |
| 117.5 | 0.859 | 0.624 | 0.468 | 0.468 | 0.390 | 0.390 | 0.390 |
| 120.0 | 0.859 | 0.546 | 0.468 | 0.390 | 0.312 | 0.390 | 0.390 |
| 122.5 | 0.859 | 0.624 | 0.468 | 0.390 | 0.390 | 0.390 | 0.390 |
| 125.0 | 0.780 | 0.624 | 0.546 | 0.468 | 0.390 | 0.390 | 0.390 |
| 127.5 | 0.859 | 0.624 | 0.468 | 0.468 | 0.468 | 0.390 | 0.468 |
| 130.0 | 0.936 | 0.702 | 0.546 | 0.546 | 0.546 | 0.468 | 0.468 |
| 132.5 | 0.936 | 0.780 | 0.624 | 0.624 | 0.546 | 0.546 | 0.546 |
| 135.0 | 1.014 | 0.859 | 0.624 | 0.702 | 0.624 | 0.546 | 0.624 |
| 137.5 | 1.092 | 0.936 | 0.780 | 0.702 | 0.702 | 0.702 | 0.624 |
| 140.0 | 1.248 | 1.014 | 0.936 | 0.859 | 0.780 | 0.780 | 0.780 |
| 142.5 | 1.482 | 1.248 | 1.092 | 0.936 | 0.936 | 0.859 | 0.859 |
| 145.0 | 1.638 | 1.326 | 1.248 | 1.170 | 1.092 | 1.014 | 1.014 |
| 147.5 | 1.950 | 1.638 | 1.561 | 1.404 | 1.326 | 1.248 | 1.248 |
| 150.0 | 2.340 | 1.950 | 1.873 | 1.638 | 1.561 | 1.561 | 1.561 |
| 152.5 | 2.730 | 2.496 | 2.185 | 2.106 | 2.028 | 1.950 | 2.028 |
| 155.0 | 3.354 | 3.120 | 2.965 | 2.730 | 2.730 | 2.652 | 2.730 |
| 157.5 | 4.056 | 3.901 | 3.822 | 3.510 | 3.510 | 3.432 | 3.510 |
| 160.0 | 4.836 | 4.603 | 4.446 | 4.291 | 4.291 | 4.213 | 4.291 |
| 162.5 | 5.460 | 5.227 | 5.148 | 5.071 | 5.071 | 4.993 | 5.071 |
| 165.0 | 6.007 | 5.850 | 5.773 | 5.695 | 5.695 | 5.617 | 5.695 |
| 167.5 | 6.319 | 6.319 | 6.241 | 6.241 | 6.162 | 6.162 | 6.241 |
| 170.0 | 6.553 | 6.553 | 6.553 | 6.553 | 6.475 | 6.553 | 6.553 |
| 172.5 | 6.787 | 6.709 | 6.709 | 6.709 | 6.709 | 6.787 | 6.866 |
| 175.0 | 6.709 | 6.787 | 6.787 | 6.787 | 6.866 | 6.866 | 6.943 |
| 177.5 | 6.787 | 6.787 | 6.787 | 6.866 | 6.943 | 6.943 | 7.099 |
| 180.0 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 | 7.174 |



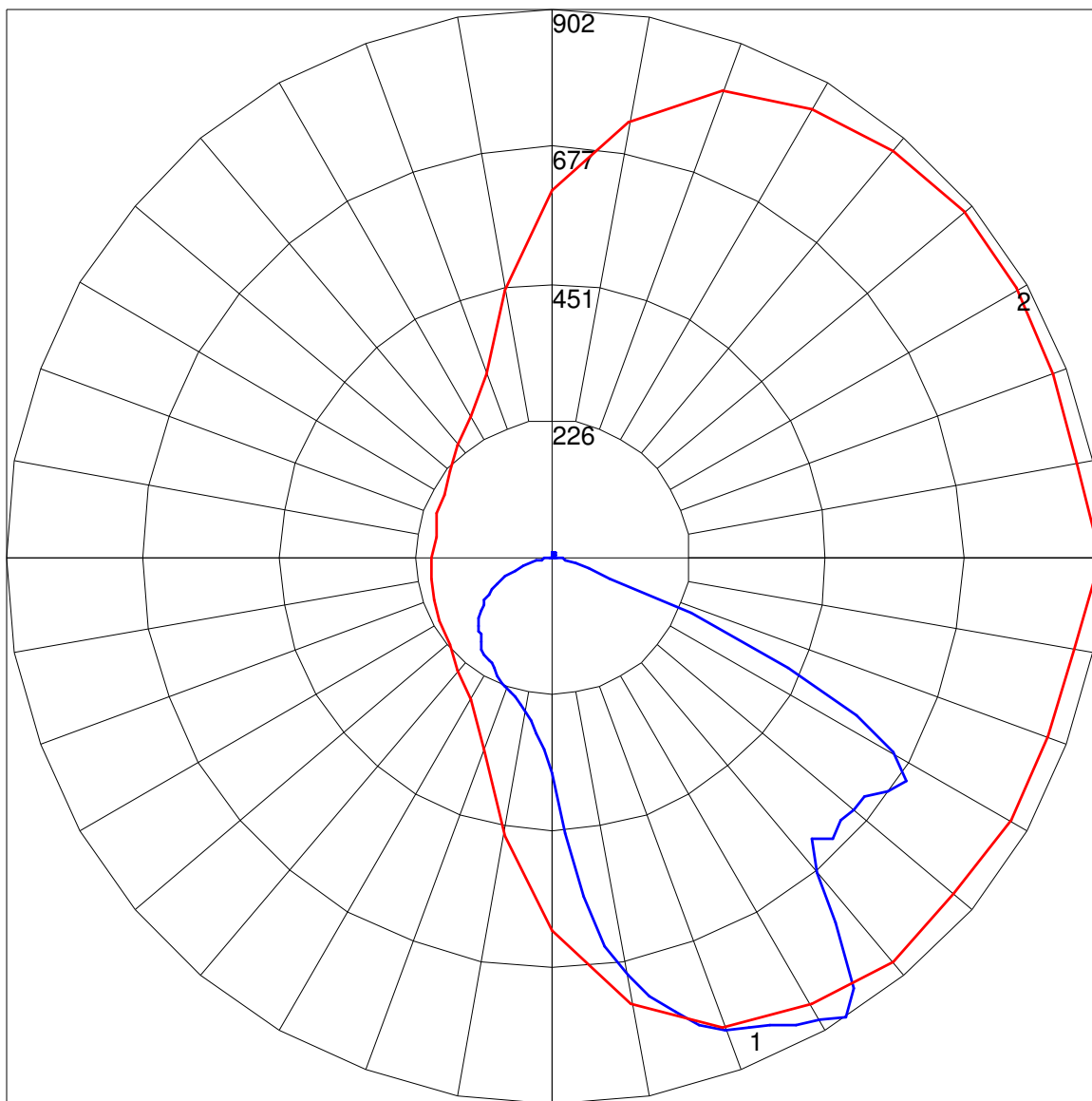
### COEFFICIENTS OF UTILIZATION



### FLUX DISTRIBUTION

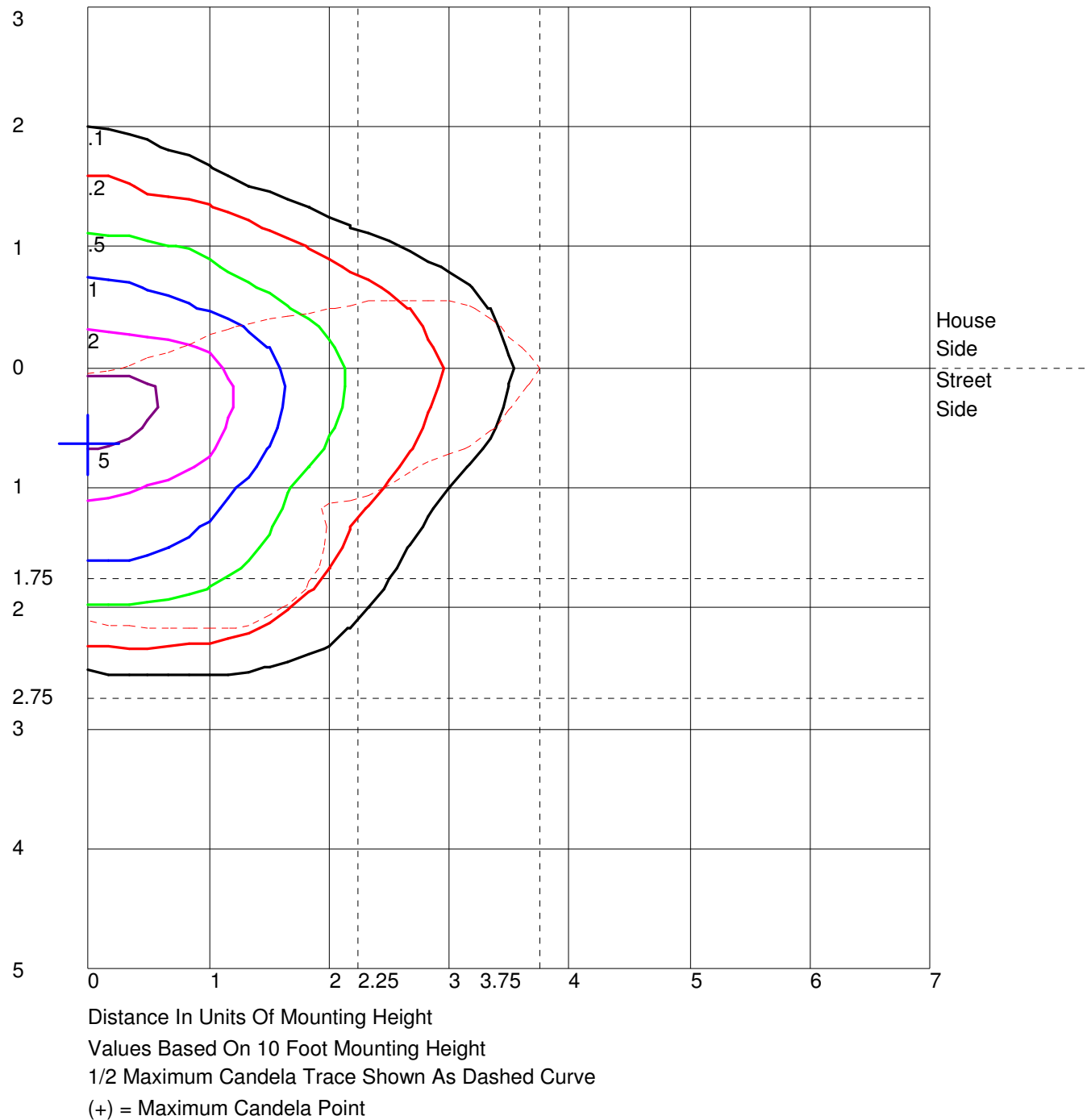
|                      | Lumens | Percent<br>Of Luminaire |
|----------------------|--------|-------------------------|
| Downward Street Side | 1537.8 | 71.0                    |
| Downward House Side  | 613.9  | 28.3                    |
| Downward Total       | 2151.7 | 99.4                    |
| Upward Street Side   | 4.7    | 0.2                     |
| Upward House Side    | 9.2    | 0.4                     |
| Upward Total         | 13.9   | 0.6                     |
| Total Flux           | 2165.6 | 100.0                   |

POLAR GRAPH

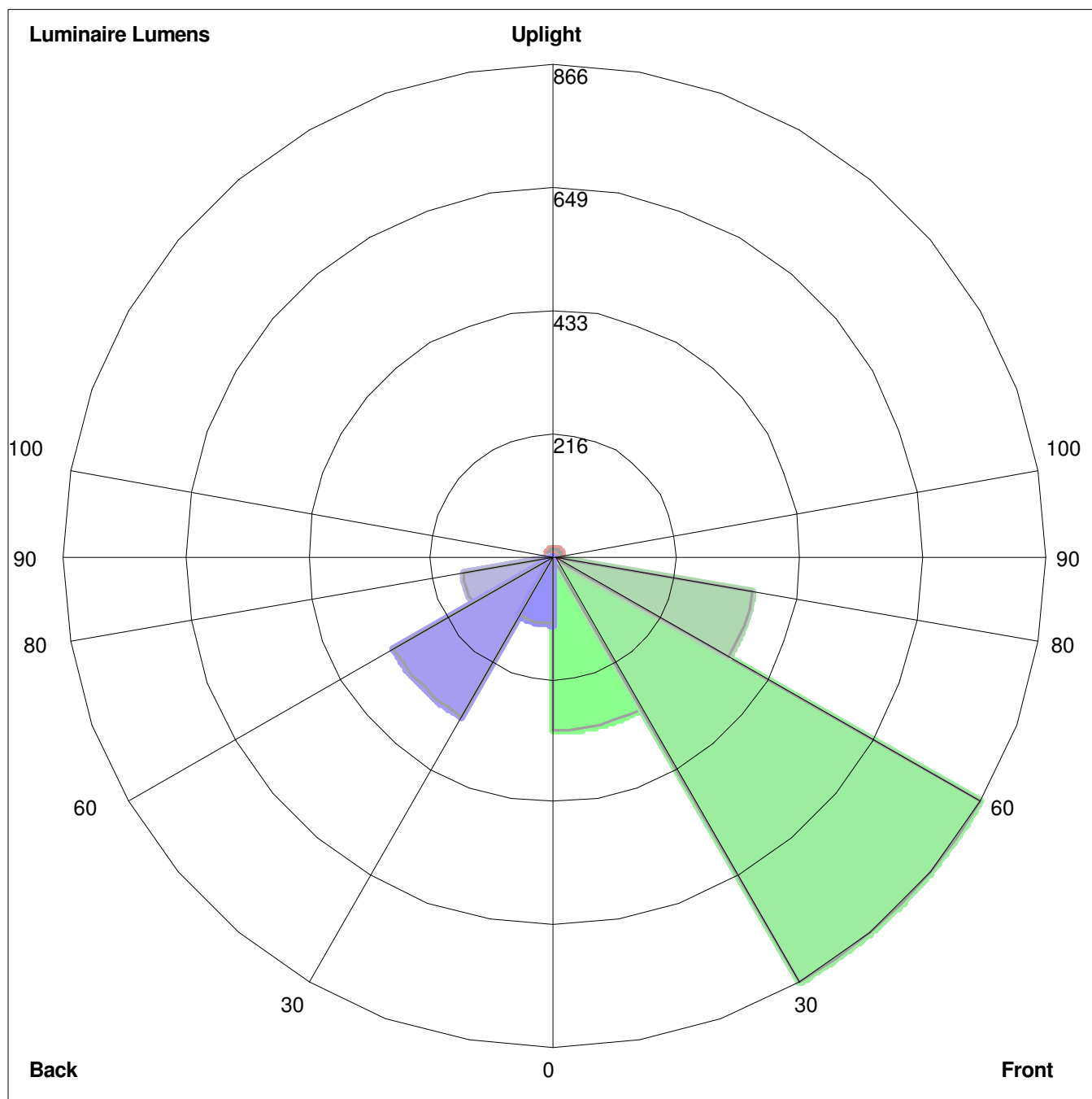


Maximum Candela = 902.283 Located At Horizontal Angle = 360, Vertical Angle = 32.5  
# 1 - Vertical Plane Through Horizontal Angles (360 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (32.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=308.5, Medium=866.0, High=355.4, Very High=7.9  
Back: Low=119.5, Medium=325.1, High=162.5, Very High=6.7  
Uplight: Low=1.6, High=12.3

BUG Rating : B1-U2-G1