



IES FLOOD REPORT

PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] 3525

[TESTLAB] TUV SUD America

[TESTDATE] 9/18/2018 11:33:10 AM

[ISSUEDATE] 01/07/2019

[MANUFAC] LSI INDUSTRIES, INC

[LUMCAT] TSFL-LED-01L-W-40

[OTHER] TEST PROCEDURE: IESNA LM-79-08

[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED

[OTHER] SCALED FROM ORIGINAL TEST DATA

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] Outdoor

Note: Candela values converted from Type-C to Type-B

CHARACTERISTICS

| | |
|------------------------------|-----------------|
| NEMA Type | 7 H x 7 V |
| Maximum Candela | 686.836 |
| Maximum Candela Angle | 0H 0V |
| Horizontal Beam Angle (50%) | 105.6 |
| Vertical Beam Angle (50%) | 99.0 |
| Horizontal Field Angle (10%) | 141.2 |
| Vertical Field Angle (10%) | 132.7 |
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Beam Lumens | 1309 |
| Beam Efficiency | N.A. |
| Field Lumens | 1608 |
| Field Efficiency | N.A. |
| Spill Lumens | 25 |
| Luminaire Lumens | 1633 |
| Total Efficiency | N.A. |
| Total Luminaire Watts | 13.91 |
| Ballast Factor | 1.00 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

AXIAL CANDELA

| DEG. | HOR. | DEG. | VERT. |
|-------|---------|-------|---------|
| 90 | 0 | 90 | 0 |
| 85 | 0 | 85 | 0 |
| 75 | 13.452 | 75 | 0 |
| 65 | 138.773 | 65 | 5.11 |
| 55 | 308.217 | 55 | 141.358 |
| 47.5 | 427.792 | 47.5 | 304.157 |
| 42.5 | 493.356 | 42.5 | 410.663 |
| 37.5 | 538.63 | 37.5 | 471.238 |
| 33 | 571.538 | 33 | 569.651 |
| 29 | 597.848 | 29 | 596.965 |
| 25.5 | 618.321 | 25.5 | 617.672 |
| 22.5 | 633.482 | 22.5 | 632.815 |
| 19.5 | 646.893 | 19.5 | 645.155 |
| 17 | 656.332 | 17 | 654.31 |
| 15 | 662.578 | 15 | 660.588 |
| 13 | 668.225 | 13 | 666.696 |
| 11 | 673.151 | 11 | 671.968 |
| 9 | 677.134 | 9 | 675.89 |
| 7 | 680.203 | 7 | 678.72 |
| 5 | 682.635 | 5 | 681.483 |
| 3 | 685.204 | 3 | 683.261 |
| 1 | 686.44 | 1 | 685.584 |
| 0 | 686.836 | 0 | 686.836 |
| -1 | 686.44 | -1 | 685.988 |
| -3 | 685.204 | -3 | 684.277 |
| -5 | 682.635 | -5 | 682.523 |
| -7 | 680.203 | -7 | 680.165 |
| -9 | 677.134 | -9 | 677.096 |
| -11 | 673.151 | -11 | 673.028 |
| -13 | 668.225 | -13 | 668.009 |
| -15 | 662.578 | -15 | 662.426 |
| -17 | 656.332 | -17 | 655.583 |
| -19.5 | 646.893 | -19.5 | 645.259 |
| -22.5 | 633.482 | -22.5 | 631.432 |
| -25.5 | 618.321 | -25.5 | 615.843 |
| -29 | 597.848 | -29 | 595.543 |
| -33 | 571.538 | -33 | 571.2 |
| -37.5 | 538.63 | -37.5 | 539.246 |
| -42.5 | 493.356 | -42.5 | 496.597 |
| -47.5 | 427.792 | -47.5 | 447.849 |
| -55 | 308.217 | -55 | 313.075 |
| -65 | 138.773 | -65 | 164.748 |
| -75 | 13.452 | -75 | 34.842 |
| -85 | 0 | -85 | 1.969 |
| -90 | 0 | -90 | .326 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

CANDELA TABULATION

Maximum Candela = 686.836

Beam Edge = 343.418 Cd (50% of Max.)

Field Edge = 68.6836 Cd (10% of Max.)

* Indicates Values Inside Field Edge

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-----------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <u>-90.0</u> | <u>-85.0</u> | <u>-75.0</u> | <u>-65.0</u> | <u>-55.0</u> | <u>-47.5</u> | <u>-42.5</u> | <u>-37.5</u> | <u>-33.0</u> | <u>-29.0</u> |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 85.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 75.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.004 | 0.000 | 0.000 | 0.002 | 0.015 |
| 65.0 | 0.000 | 0.000 | 0.000 | 0.074 | 1.030 | 2.658 | 3.983 | 6.820 | 10.420 | 11.878 |
| 55.0 | 0.000 | 0.000 | 0.147 | 2.313 | 18.729 | 47.756 | 70.597 * | 86.116 * | 108.002 * | 125.266 * |
| 47.5 | 0.000 | 0.000 | 0.450 | 10.216 | 63.084 | 117.338 * | 161.548 * | 194.222 * | 234.145 * | 255.029 * |
| 42.5 | 0.000 | 0.000 | 1.239 | 21.059 | 103.029 * | 178.545 * | 224.820 * | 277.380 * | 313.165 * | 344.923 * |
| 37.5 | 0.000 | 0.000 | 2.049 | 36.262 | 142.244 * | 235.163 * | 292.206 * | 346.385 * | 397.562 * | 432.538 * |
| 33.0 | 0.000 | 0.000 | 2.853 | 53.012 | 179.078 * | 281.291 * | 342.800 * | 404.420 * | 457.226 * | 494.440 * |
| 29.0 | 0.000 | 0.000 | 4.516 | 68.331 | 208.863 * | 318.689 * | 384.514 * | 445.316 * | 493.675 * | 522.223 * |
| 25.5 | 0.000 | 0.000 | 5.937 | 81.743 * | 231.253 * | 347.528 * | 413.528 * | 473.011 * | 514.226 * | 539.932 * |
| 22.5 | 0.000 | 0.000 | 7.117 | 91.538 * | 248.282 * | 365.700 * | 434.124 * | 492.029 * | 528.587 * | 553.726 * |
| 19.5 | 0.000 | 0.000 | 8.248 | 101.542 * | 262.891 * | 381.889 * | 449.407 * | 505.700 * | 540.875 * | 565.635 * |
| 17.0 | 0.000 | 0.000 | 9.145 | 109.040 * | 273.014 * | 393.397 * | 460.628 * | 514.834 * | 549.226 * | 574.023 * |
| 15.0 | 0.000 | 0.000 | 9.826 | 114.478 * | 280.224 * | 401.027 * | 468.261 * | 521.190 * | 554.822 * | 579.945 * |
| 13.0 | 0.000 | 0.000 | 10.470 | 119.410 * | 286.632 * | 407.720 * | 474.804 * | 525.917 * | 559.498 * | 585.003 * |
| 11.0 | 0.000 | 0.000 | 11.073 | 123.829 * | 292.226 * | 413.461 * | 480.371 * | 529.936 * | 563.321 * | 589.155 * |
| 9.0 | 0.000 | 0.000 | 11.631 | 127.729 * | 296.998 * | 418.241 * | 484.951 * | 533.224 * | 566.398 * | 592.587 * |
| 7.0 | 0.000 | 0.000 | 12.138 | 131.107 * | 300.943 * | 422.053 * | 488.538 * | 535.764 * | 568.799 * | 595.085 * |
| 5.0 | 0.000 | 0.000 | 12.800 | 133.958 * | 304.058 * | 424.895 * | 491.135 * | 537.543 * | 570.497 * | 596.752 * |
| 3.0 | 0.000 | 0.000 | 13.060 | 136.879 * | 307.270 * | 427.838 * | 493.817 * | 538.554 * | 571.469 * | 597.741 * |
| 1.0 | 0.000 | 0.000 | 13.321 | 138.141 * | 307.901 * | 427.807 * | 493.510 * | 538.891 * | 571.702 * | 598.003 * |
| 0.0 | 0.000 | 0.000 | 13.452 | 138.773 * | 308.217 * | 427.792 * | 493.356 * | 538.630 * | 571.538 * | 597.848 * |
| -1.0 | 0.000 | 0.000 | 13.720 | 139.539 * | 309.052 * | 428.364 * | 493.411 * | 538.574 * | 571.440 * | 597.745 * |
| -3.0 | 0.000 | 0.002 | 14.256 | 141.070 * | 310.719 * | 429.505 * | 493.522 * | 537.610 * | 570.678 * | 596.956 * |
| -5.0 | 0.000 | 0.003 | 14.791 | 140.953 * | 309.840 * | 427.811 * | 490.863 * | 535.996 * | 569.160 * | 595.405 * |
| -7.0 | 0.000 | 0.004 | 14.853 | 140.906 * | 309.077 * | 426.312 * | 488.450 * | 533.654 * | 566.890 * | 593.121 * |
| -9.0 | 0.000 | 0.005 | 15.058 | 140.339 * | 307.520 * | 424.017 * | 485.329 * | 530.604 * | 563.881 * | 590.013 * |
| -11.0 | 0.000 | 0.006 | 15.166 | 139.258 * | 305.185 * | 420.972 * | 481.571 * | 526.872 * | 560.151 * | 586.057 * |
| -13.0 | 0.000 | 0.007 | 15.172 | 137.668 * | 302.085 * | 417.224 * | 477.243 * | 522.485 * | 555.616 * | 581.406 * |
| -15.0 | 0.000 | 0.008 | 15.070 | 135.576 * | 298.237 * | 412.819 * | 472.411 * | 517.476 * | 550.140 * | 575.848 * |
| -17.0 | 0.000 | 0.009 | 14.855 | 132.990 * | 293.658 * | 407.804 * | 466.835 * | 511.278 * | 543.951 * | 569.261 * |
| -19.5 | 0.000 | 0.010 | 14.424 | 129.074 * | 286.939 * | 399.658 * | 458.205 * | 502.665 * | 535.284 * | 560.159 * |
| -22.5 | 0.000 | 0.011 | 13.655 | 123.398 * | 277.599 * | 387.749 * | 446.829 * | 490.926 * | 523.178 * | 547.742 * |
| -25.5 | 0.000 | 0.012 | 12.604 | 117.898 * | 267.007 * | 374.412 * | 432.822 * | 477.454 * | 509.353 * | 533.868 * |
| -29.0 | 0.000 | 0.012 | 11.008 | 108.568 * | 253.144 * | 355.654 * | 414.926 * | 458.875 * | 491.183 * | 515.989 * |
| -33.0 | 0.000 | 0.012 | 8.689 | 97.588 * | 234.494 * | 332.129 * | 389.880 * | 434.753 * | 467.233 * | 491.039 * |
| -37.5 | 0.000 | 0.012 | 7.322 | 83.650 * | 209.735 * | 303.895 * | 359.168 * | 404.546 * | 436.292 * | 459.435 * |
| -42.5 | 0.000 | 0.011 | 5.448 | 66.428 | 176.262 * | 261.023 * | 319.837 * | 367.264 * | 398.295 * | 419.641 * |
| -47.5 | 0.000 | 0.009 | 3.085 | 49.622 | 142.977 * | 210.748 * | 265.525 * | 323.019 * | 346.144 * | 363.620 * |
| -55.0 | 0.000 | 0.004 | 1.632 | 26.952 | 88.899 * | 145.076 * | 177.718 * | 208.685 * | 240.865 * | 264.159 * |
| -65.0 | 0.000 | 0.000 | 0.374 | 6.330 | 29.270 | 56.761 | 76.136 * | 90.595 * | 107.157 * | 122.600 * |
| -75.0 | 0.000 | 0.000 | 0.052 | 0.672 | 3.300 | 6.577 | 11.149 | 14.141 | 16.039 | 19.477 |
| -85.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.060 | 0.200 | 0.373 | 0.609 | 0.822 | 1.009 |
| -90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.024 | 0.071 | 0.114 | 0.152 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

CANDELA TABULATION - (Cont.)

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-----------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
| | <u>-25.5</u> | <u>-22.5</u> | <u>-19.5</u> | <u>-17.0</u> | <u>-15.0</u> | <u>-13.0</u> | <u>-11.0</u> | <u>-9.0</u> | <u>-7.0</u> | <u>-5.0</u> |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 85.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 75.0 | 0.014 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 65.0 | 11.070 | 10.058 | 9.318 | 10.045 | 10.272 | 10.215 | 9.905 | 9.373 | 8.650 | 7.771 |
| 55.0 | 136.894 * | 146.104 * | 153.706 * | 157.002 * | 158.524 * | 159.126 * | 158.814 * | 157.598 * | 155.491 * | 152.509 * |
| 47.5 | 268.196 * | 280.601 * | 289.099 * | 292.807 * | 296.068 * | 299.335 * | 302.422 * | 305.070 * | 307.008 * | 307.959 * |
| 42.5 | 363.127 * | 375.152 * | 385.221 * | 391.538 * | 392.402 * | 394.125 * | 397.086 * | 400.769 * | 404.616 * | 408.039 * |
| 37.5 | 450.488 * | 457.373 * | 465.395 * | 474.868 * | 483.455 * | 491.177 * | 495.397 * | 496.569 * | 494.923 * | 490.732 * |
| 33.0 | 505.972 * | 518.554 * | 536.460 * | 547.252 * | 553.850 * | 559.983 * | 563.721 * | 566.366 * | 568.393 * | 569.733 * |
| 29.0 | 539.710 * | 553.478 * | 566.062 * | 574.882 * | 581.183 * | 586.425 * | 590.922 * | 593.887 * | 595.971 * | 597.210 * |
| 25.5 | 558.896 * | 573.242 * | 585.490 * | 594.331 * | 600.588 * | 606.187 * | 611.215 * | 614.659 * | 616.754 * | 618.049 * |
| 22.5 | 572.877 * | 587.273 * | 599.621 * | 608.739 * | 615.261 * | 621.122 * | 626.375 * | 630.562 * | 632.530 * | 633.676 * |
| 19.5 | 584.870 * | 599.277 * | 611.973 * | 621.365 * | 627.926 * | 633.648 * | 638.911 * | 643.198 * | 645.946 * | 646.824 * |
| 17.0 | 593.572 * | 607.838 * | 620.790 * | 629.934 * | 636.557 * | 642.414 * | 647.779 * | 652.077 * | 655.587 * | 656.456 * |
| 15.0 | 599.428 * | 613.801 * | 626.808 * | 636.052 * | 642.561 * | 648.795 * | 654.024 * | 658.529 * | 661.704 * | 663.097 * |
| 13.0 | 604.402 * | 619.033 * | 631.908 * | 641.307 * | 648.251 * | 654.368 * | 659.547 * | 663.571 * | 666.962 * | 668.971 * |
| 11.0 | 608.670 * | 623.563 * | 636.468 * | 646.089 * | 652.926 * | 659.012 * | 663.860 * | 667.924 * | 671.198 * | 673.504 * |
| 9.0 | 612.056 * | 627.025 * | 640.149 * | 649.829 * | 656.908 * | 662.537 * | 667.435 * | 671.716 * | 674.627 * | 676.870 * |
| 7.0 | 614.750 * | 629.801 * | 643.081 * | 652.794 * | 659.569 * | 665.444 * | 670.272 * | 674.219 * | 677.465 * | 679.312 * |
| 5.0 | 616.732 * | 631.846 * | 645.278 * | 654.989 * | 661.517 * | 667.275 * | 672.194 * | 676.156 * | 678.869 * | 681.111 * |
| 3.0 | 617.960 * | 633.112 * | 646.533 * | 656.172 * | 662.590 * | 668.234 * | 673.115 * | 677.069 * | 679.794 * | 682.237 * |
| 1.0 | 618.402 * | 633.670 * | 646.968 * | 656.464 * | 662.898 * | 668.434 * | 673.334 * | 677.260 * | 680.250 * | 682.913 * |
| 0.0 | 618.321 * | 633.482 * | 646.893 * | 656.332 * | 662.578 * | 668.225 * | 673.151 * | 677.134 * | 680.203 * | 682.635 * |
| -1.0 | 618.277 * | 633.498 * | 646.679 * | 656.069 * | 662.595 * | 668.153 * | 673.015 * | 676.941 * | 680.031 * | 682.766 * |
| -3.0 | 617.565 * | 632.612 * | 645.697 * | 654.954 * | 661.629 * | 667.372 * | 672.184 * | 676.038 * | 679.075 * | 681.680 * |
| -5.0 | 615.999 * | 631.061 * | 643.970 * | 652.962 * | 659.774 * | 665.781 * | 670.797 * | 674.732 * | 677.763 * | 680.161 * |
| -7.0 | 613.575 * | 628.800 * | 641.389 * | 650.219 * | 656.967 * | 663.441 * | 668.591 * | 672.689 * | 676.079 * | 677.685 * |
| -9.0 | 610.301 * | 625.897 * | 638.129 * | 647.042 * | 653.548 * | 659.798 * | 665.174 * | 669.879 * | 672.581 * | 674.624 * |
| -11.0 | 606.186 * | 622.004 * | 633.919 * | 643.044 * | 649.364 * | 655.358 * | 660.758 * | 664.972 * | 668.212 * | 670.302 * |
| -13.0 | 601.004 * | 616.211 * | 628.673 * | 637.668 * | 644.440 * | 650.158 * | 655.136 * | 659.321 * | 662.741 * | 664.970 * |
| -15.0 | 595.208 * | 609.773 * | 622.711 * | 631.610 * | 638.011 * | 644.047 * | 648.717 * | 652.783 * | 655.943 * | 658.788 * |
| -17.0 | 588.706 * | 602.839 * | 615.611 * | 624.425 * | 631.008 * | 636.691 * | 641.729 * | 645.507 * | 648.522 * | 651.638 * |
| -19.5 | 579.200 * | 593.564 * | 605.531 * | 614.735 * | 621.203 * | 626.774 * | 631.711 * | 635.559 * | 638.833 * | 641.712 * |
| -22.5 | 566.351 * | 580.480 * | 592.912 * | 601.583 * | 607.853 * | 613.389 * | 618.172 * | 621.984 * | 625.496 * | 628.232 * |
| -25.5 | 552.089 * | 565.686 * | 577.944 * | 587.121 * | 593.206 * | 598.457 * | 603.134 * | 606.987 * | 610.226 * | 612.782 * |
| -29.0 | 533.463 * | 546.625 * | 558.215 * | 566.745 * | 572.912 * | 578.257 * | 583.037 * | 587.344 * | 590.578 * | 592.911 * |
| -33.0 | 508.464 * | 521.681 * | 533.278 * | 541.247 * | 546.812 * | 551.757 * | 556.787 * | 561.149 * | 564.729 * | 567.528 * |
| -37.5 | 476.764 * | 489.586 * | 500.551 * | 508.570 * | 514.297 * | 519.466 * | 524.377 * | 528.649 * | 532.252 * | 535.159 * |
| -42.5 | 436.139 * | 448.829 * | 459.543 * | 467.383 * | 472.860 * | 478.139 * | 482.798 * | 486.817 * | 490.179 * | 492.870 * |
| -47.5 | 383.640 * | 396.548 * | 409.505 * | 418.833 * | 424.493 * | 429.646 * | 434.247 * | 438.254 * | 441.625 * | 444.319 * |
| -55.0 | 276.068 * | 282.132 * | 284.631 * | 289.542 * | 294.425 * | 298.737 * | 302.480 * | 305.655 * | 308.267 * | 310.321 * |
| -65.0 | 135.995 * | 140.148 * | 144.560 * | 148.590 * | 151.590 * | 154.360 * | 156.870 * | 159.091 * | 160.995 * | 162.553 * |
| -75.0 | 22.155 | 24.182 | 26.460 | 28.284 | 29.603 | 30.790 | 31.837 | 32.739 | 33.490 | 34.621 |
| -85.0 | 1.172 | 1.310 | 1.411 | 1.492 | 1.555 | 1.616 | 1.706 | 1.754 | 1.802 | 1.850 |
| -90.0 | 0.185 | 0.214 | 0.229 | 0.241 | 0.251 | 0.261 | 0.271 | 0.281 | 0.291 | 0.301 |

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-----------------|-------------------|-------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
| | <u>-3.0</u> | <u>-1.0</u> | <u>0.0</u> | <u>1.0</u> | <u>3.0</u> | <u>5.0</u> | <u>7.0</u> | <u>9.0</u> | <u>11.0</u> | <u>13.0</u> |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 85.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 75.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 65.0 | 6.829 | 5.683 | 5.110 | 5.683 | 6.829 | 7.771 | 8.650 | 9.373 | 9.905 | 10.215 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

CANDELA TABULATION - (Cont.)

| | | | | | | | | | | | |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|
| 55.0 | 149.577 | 144.099 | 141.358 | 144.099 | 149.577 | 152.509 | 155.491 | 157.598 | 158.814 | 159.126 | * |
| 47.5 | 309.701 | 306.006 | 304.157 | 306.006 | 309.701 | 307.959 | 307.008 | 305.070 | 302.422 | 299.335 | * |
| 42.5 | 413.008 | 411.446 | 410.663 | 411.446 | 413.008 | 408.039 | 404.616 | 400.769 | 397.086 | 394.125 | * |
| 37.5 | 484.307 | 476.165 | 471.238 | 476.165 | 484.307 | 490.732 | 494.923 | 496.569 | 495.397 | 491.177 | * |
| 33.0 | 570.321 | 570.091 | 569.651 | 570.091 | 570.321 | 569.733 | 568.393 | 566.366 | 563.721 | 559.983 | * |
| 29.0 | 597.697 | 597.407 | 596.965 | 597.407 | 597.697 | 597.210 | 595.971 | 593.887 | 590.922 | 586.425 | * |
| 25.5 | 618.522 | 618.163 | 617.672 | 618.163 | 618.522 | 618.049 | 616.754 | 614.659 | 611.215 | 606.187 | * |
| 22.5 | 633.973 | 633.517 | 632.815 | 633.517 | 633.973 | 633.676 | 632.530 | 630.566 | 626.375 | 621.122 | * |
| 19.5 | 646.752 | 645.876 | 645.155 | 645.876 | 646.752 | 646.824 | 645.946 | 643.198 | 638.911 | 633.648 | * |
| 17.0 | 656.233 | 655.136 | 654.310 | 655.136 | 656.233 | 656.456 | 655.587 | 652.077 | 647.779 | 642.414 | * |
| 15.0 | 662.740 | 661.620 | 660.588 | 661.620 | 662.740 | 663.097 | 661.704 | 658.529 | 654.024 | 648.795 | * |
| 13.0 | 668.591 | 667.533 | 666.696 | 667.533 | 668.591 | 668.971 | 666.962 | 663.571 | 659.547 | 654.368 | * |
| 11.0 | 673.598 | 672.699 | 671.968 | 672.699 | 673.598 | 673.504 | 671.198 | 667.924 | 663.860 | 659.012 | * |
| 9.0 | 677.676 | 676.664 | 675.890 | 676.664 | 677.676 | 676.870 | 674.627 | 671.716 | 667.435 | 662.537 | * |
| 7.0 | 680.883 | 679.709 | 678.720 | 679.709 | 680.883 | 679.312 | 677.465 | 674.219 | 670.272 | 665.444 | * |
| 5.0 | 682.950 | 682.922 | 681.483 | 682.922 | 682.950 | 681.111 | 678.869 | 676.156 | 672.194 | 667.275 | * |
| 3.0 | 684.008 | 685.709 | 683.261 | 685.709 | 684.007 | 682.237 | 679.794 | 677.069 | 673.115 | 668.234 | * |
| 1.0 | 684.721 | 686.088 | 685.584 | 686.088 | 684.721 | 682.913 | 680.250 | 677.260 | 673.334 | 668.434 | * |
| 0.0 | 685.204 | 686.440 | 686.836 | 686.440 | 685.204 | 682.635 | 680.203 | 677.134 | 673.151 | 668.225 | * |
| -1.0 | 685.174 | 686.082 | 685.988 | 686.082 | 685.174 | 682.766 | 680.031 | 676.941 | 673.015 | 668.153 | * |
| -3.0 | 683.533 | 684.472 | 684.277 | 684.472 | 683.533 | 681.680 | 679.075 | 676.038 | 672.184 | 667.372 | * |
| -5.0 | 681.425 | 682.472 | 682.523 | 682.472 | 681.425 | 680.161 | 677.763 | 674.732 | 670.797 | 665.781 | * |
| -7.0 | 678.813 | 679.893 | 680.165 | 679.893 | 678.813 | 677.685 | 676.079 | 672.689 | 668.591 | 663.441 | * |
| -9.0 | 675.905 | 676.863 | 677.096 | 676.863 | 675.905 | 674.624 | 672.581 | 669.879 | 665.174 | 659.798 | * |
| -11.0 | 671.851 | 672.838 | 673.028 | 672.838 | 671.851 | 670.302 | 668.212 | 664.972 | 660.758 | 655.358 | * |
| -13.0 | 666.840 | 667.838 | 668.009 | 667.838 | 666.840 | 664.970 | 662.741 | 659.321 | 655.136 | 650.158 | * |
| -15.0 | 660.985 | 662.298 | 662.426 | 662.298 | 660.985 | 658.788 | 655.943 | 652.783 | 648.717 | 644.047 | * |
| -17.0 | 653.904 | 655.230 | 655.583 | 655.230 | 653.904 | 651.638 | 648.522 | 645.507 | 641.729 | 636.691 | * |
| -19.5 | 643.735 | 644.955 | 645.259 | 644.955 | 643.735 | 641.712 | 638.833 | 635.559 | 631.711 | 626.774 | * |
| -22.5 | 630.149 | 631.327 | 631.432 | 631.327 | 630.149 | 628.232 | 625.496 | 621.985 | 618.172 | 613.389 | * |
| -25.5 | 614.600 | 615.633 | 615.843 | 615.633 | 614.600 | 612.782 | 610.226 | 606.987 | 603.134 | 598.457 | * |
| -29.0 | 594.519 | 595.388 | 595.543 | 595.388 | 594.519 | 592.911 | 590.578 | 587.344 | 583.037 | 578.257 | * |
| -33.0 | 569.557 | 570.835 | 571.200 | 570.835 | 569.557 | 567.528 | 564.729 | 561.149 | 556.787 | 551.757 | * |
| -37.5 | 537.348 | 538.894 | 539.246 | 538.894 | 537.348 | 535.159 | 532.252 | 528.649 | 524.377 | 519.466 | * |
| -42.5 | 495.659 | 496.284 | 496.597 | 496.284 | 495.659 | 492.870 | 490.179 | 486.817 | 482.798 | 478.139 | * |
| -47.5 | 447.183 | 447.627 | 447.849 | 447.627 | 447.183 | 444.319 | 441.625 | 438.254 | 434.247 | 429.646 | * |
| -55.0 | 312.421 | 312.857 | 313.075 | 312.857 | 312.421 | 310.321 | 308.267 | 305.655 | 302.480 | 298.737 | * |
| -65.0 | 164.219 | 164.572 | 164.748 | 164.572 | 164.219 | 162.553 | 160.995 | 159.091 | 156.870 | 154.360 | * |
| -75.0 | 34.710 | 34.798 | 34.842 | 34.798 | 34.710 | 34.621 | 33.490 | 32.739 | 31.837 | 30.790 | |
| -85.0 | 1.897 | 1.945 | 1.969 | 1.945 | 1.897 | 1.850 | 1.802 | 1.754 | 1.706 | 1.616 | |
| -90.0 | 0.311 | 0.321 | 0.326 | 0.321 | 0.311 | 0.301 | 0.291 | 0.281 | 0.271 | 0.261 | |

**Vert.
Angles**

Horizontal Angles

| | <u>15.0</u> | <u>17.0</u> | <u>19.5</u> | <u>22.5</u> | <u>25.5</u> | <u>29.0</u> | <u>33.0</u> | <u>37.5</u> | <u>42.5</u> | <u>47.5</u> |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 85.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 75.0 | 0.000 | 0.000 | 0.000 | 0.003 | 0.014 | 0.015 | 0.002 | 0.000 | 0.000 | 0.004 |
| 65.0 | 10.272 | 10.045 | 9.318 | 10.058 | 11.070 | 11.878 | 10.420 | 6.820 | 3.983 | 2.658 |
| 55.0 | 158.524 | 157.002 | 153.706 | 146.104 | 136.894 | 125.266 | 108.002 | 86.116 | 70.597 | 47.756 |
| 47.5 | 296.068 | 292.880 | 289.099 | 280.601 | 268.196 | 255.029 | 234.145 | 194.222 | 161.548 | 117.338 |
| 42.5 | 392.402 | 391.538 | 385.221 | 375.152 | 363.127 | 344.923 | 313.165 | 277.380 | 224.820 | 178.545 |
| 37.5 | 483.455 | 474.868 | 465.395 | 457.373 | 450.488 | 432.538 | 397.562 | 346.385 | 292.206 | 235.163 |
| 33.0 | 553.850 | 547.252 | 536.460 | 518.554 | 505.972 | 494.440 | 457.226 | 404.420 | 342.800 | 281.291 |
| 29.0 | 581.183 | 574.882 | 566.062 | 553.478 | 539.710 | 522.223 | 493.675 | 445.316 | 384.514 | 318.689 |
| 25.5 | 600.588 | 594.331 | 585.490 | 573.242 | 558.896 | 539.932 | 514.226 | 473.011 | 413.528 | 347.528 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 22.5 | 615.261 * | 608.739 * | 599.621 * | 587.273 * | 572.877 * | 553.726 * | 528.587 * | 492.029 * | 434.124 * | 365.700 * |
| 19.5 | 627.926 * | 621.365 * | 611.973 * | 599.277 * | 584.870 * | 565.635 * | 540.875 * | 505.700 * | 449.407 * | 381.889 * |
| 17.0 | 636.557 * | 629.934 * | 620.790 * | 607.838 * | 593.572 * | 574.023 * | 549.226 * | 514.834 * | 460.628 * | 393.397 * |
| 15.0 | 642.561 * | 636.052 * | 626.808 * | 613.801 * | 599.428 * | 579.945 * | 554.822 * | 521.190 * | 468.261 * | 401.027 * |
| 13.0 | 648.251 * | 641.307 * | 631.908 * | 619.033 * | 604.402 * | 585.003 * | 559.498 * | 525.917 * | 474.804 * | 407.720 * |
| 11.0 | 652.926 * | 646.089 * | 636.468 * | 623.563 * | 608.670 * | 589.155 * | 563.321 * | 529.936 * | 480.371 * | 413.461 * |
| 9.0 | 656.908 * | 649.829 * | 640.149 * | 627.025 * | 612.056 * | 592.587 * | 566.398 * | 533.224 * | 484.951 * | 418.241 * |
| 7.0 | 659.569 * | 652.794 * | 643.081 * | 629.801 * | 614.750 * | 595.085 * | 568.799 * | 535.764 * | 488.538 * | 422.053 * |
| 5.0 | 661.517 * | 654.989 * | 645.278 * | 631.846 * | 616.732 * | 596.752 * | 570.497 * | 537.543 * | 491.135 * | 424.895 * |
| 3.0 | 662.590 * | 656.172 * | 646.533 * | 633.112 * | 617.960 * | 597.741 * | 571.469 * | 538.554 * | 493.817 * | 427.838 * |
| 1.0 | 662.898 * | 656.464 * | 646.968 * | 633.670 * | 618.402 * | 598.003 * | 571.702 * | 538.891 * | 493.510 * | 427.807 * |
| 0.0 | 662.578 * | 656.332 * | 646.893 * | 633.482 * | 618.321 * | 597.848 * | 571.538 * | 538.630 * | 493.356 * | 427.792 * |
| -1.0 | 662.595 * | 656.069 * | 646.679 * | 633.498 * | 618.277 * | 597.745 * | 571.440 * | 538.574 * | 493.411 * | 428.364 * |
| -3.0 | 661.629 * | 654.954 * | 645.697 * | 632.612 * | 617.565 * | 596.956 * | 570.678 * | 537.610 * | 493.522 * | 429.505 * |
| -5.0 | 659.774 * | 652.962 * | 643.970 * | 631.061 * | 615.999 * | 595.405 * | 569.160 * | 535.996 * | 490.863 * | 427.811 * |
| -7.0 | 656.967 * | 650.219 * | 641.389 * | 628.800 * | 613.575 * | 593.121 * | 566.890 * | 533.654 * | 488.450 * | 426.312 * |
| -9.0 | 653.548 * | 647.042 * | 638.129 * | 625.897 * | 610.301 * | 590.013 * | 563.881 * | 530.604 * | 485.329 * | 424.017 * |
| -11.0 | 649.364 * | 643.044 * | 633.919 * | 622.004 * | 606.186 * | 586.057 * | 560.151 * | 526.872 * | 481.571 * | 420.972 * |
| -13.0 | 644.440 * | 637.668 * | 628.673 * | 616.211 * | 601.004 * | 581.406 * | 555.616 * | 522.485 * | 477.243 * | 417.224 * |
| -15.0 | 638.011 * | 631.610 * | 622.711 * | 609.773 * | 595.208 * | 575.848 * | 550.140 * | 517.476 * | 472.411 * | 412.819 * |
| -17.0 | 631.008 * | 624.425 * | 615.611 * | 602.839 * | 588.706 * | 569.261 * | 543.951 * | 511.278 * | 466.835 * | 407.804 * |
| -19.5 | 621.203 * | 614.735 * | 605.531 * | 593.564 * | 579.200 * | 560.159 * | 535.284 * | 502.665 * | 458.205 * | 399.658 * |
| -22.5 | 607.853 * | 601.583 * | 592.912 * | 580.480 * | 566.351 * | 547.742 * | 523.178 * | 490.926 * | 446.829 * | 387.749 * |
| -25.5 | 593.206 * | 587.121 * | 577.944 * | 565.686 * | 552.089 * | 533.868 * | 509.353 * | 477.454 * | 432.822 * | 374.412 * |
| -29.0 | 572.912 * | 566.745 * | 558.215 * | 546.625 * | 533.463 * | 515.989 * | 491.183 * | 458.875 * | 414.926 * | 355.654 * |
| -33.0 | 546.812 * | 541.247 * | 533.278 * | 521.681 * | 508.464 * | 491.039 * | 467.233 * | 434.753 * | 389.880 * | 332.129 * |
| -37.5 | 514.297 * | 508.570 * | 500.551 * | 489.586 * | 476.764 * | 459.435 * | 436.292 * | 404.546 * | 359.168 * | 303.895 * |
| -42.5 | 472.860 * | 467.383 * | 459.543 * | 448.829 * | 436.139 * | 419.641 * | 398.295 * | 367.264 * | 319.837 * | 261.023 * |
| -47.5 | 424.493 * | 418.830 * | 409.505 * | 396.548 * | 383.640 * | 363.620 * | 346.144 * | 323.019 * | 265.525 * | 210.748 * |
| -55.0 | 294.425 * | 289.542 * | 284.631 * | 282.132 * | 276.068 * | 264.159 * | 240.865 * | 208.685 * | 177.718 * | 145.076 * |
| -65.0 | 151.590 * | 148.590 * | 144.560 * | 140.148 * | 135.995 * | 122.600 * | 107.157 * | 90.595 * | 76.136 * | 56.761 |
| -75.0 | 29.603 | 28.284 | 26.460 | 24.182 | 22.155 | 19.477 | 16.039 | 14.141 | 11.149 | 6.577 |
| -85.0 | 1.555 | 1.492 | 1.411 | 1.312 | 1.172 | 1.009 | 0.822 | 0.609 | 0.373 | 0.200 |
| -90.0 | 0.251 | 0.241 | 0.229 | 0.214 | 0.185 | 0.152 | 0.114 | 0.071 | 0.024 | 0.000 |

Vert. Angles **Horizontal Angles**

| | <u>55.0</u> | <u>65.0</u> | <u>75.0</u> | <u>85.0</u> | <u>90.0</u> |
|-------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 85.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 75.0 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 |
| 65.0 | 1.030 | 0.074 | 0.000 | 0.000 | 0.000 |
| 55.0 | 18.729 | 2.313 | 0.147 | 0.000 | 0.000 |
| 47.5 | 63.084 | 10.216 | 0.450 | 0.000 | 0.000 |
| 42.5 | 103.029 * | 21.059 | 1.239 | 0.000 | 0.000 |
| 37.5 | 142.244 * | 36.262 | 2.049 | 0.000 | 0.000 |
| 33.0 | 179.078 * | 53.012 | 2.853 | 0.000 | 0.000 |
| 29.0 | 208.863 * | 68.331 | 4.516 | 0.000 | 0.000 |
| 25.5 | 231.253 * | 81.743 * | 5.937 | 0.000 | 0.000 |
| 22.5 | 248.282 * | 91.538 * | 7.117 | 0.000 | 0.000 |
| 19.5 | 262.891 * | 101.542 * | 8.248 | 0.000 | 0.000 |
| 17.0 | 273.014 * | 109.040 * | 9.145 | 0.000 | 0.000 |
| 15.0 | 280.224 * | 114.478 * | 9.826 | 0.000 | 0.000 |
| 13.0 | 286.632 * | 119.410 * | 10.470 | 0.000 | 0.000 |
| 11.0 | 292.226 * | 123.829 * | 11.073 | 0.000 | 0.000 |
| 9.0 | 296.998 * | 127.729 * | 11.631 | 0.000 | 0.000 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|--------------|-----------|-----------|--------|-------|-------|
| 7.0 | 300.943 * | 131.107 * | 12.138 | 0.000 | 0.000 |
| 5.0 | 304.058 * | 133.958 * | 12.800 | 0.000 | 0.000 |
| 3.0 | 307.270 * | 136.879 * | 13.060 | 0.000 | 0.000 |
| 1.0 | 307.901 * | 138.141 * | 13.321 | 0.000 | 0.000 |
| 0.0 | 308.217 * | 138.773 * | 13.452 | 0.000 | 0.000 |
| -1.0 | 309.052 * | 139.539 * | 13.720 | 0.001 | 0.000 |
| -3.0 | 310.719 * | 141.070 * | 14.256 | 0.002 | 0.000 |
| -5.0 | 309.840 * | 140.953 * | 14.791 | 0.003 | 0.000 |
| -7.0 | 309.077 * | 140.906 * | 14.853 | 0.004 | 0.000 |
| -9.0 | 307.520 * | 140.339 * | 15.058 | 0.005 | 0.000 |
| -11.0 | 305.185 * | 139.258 * | 15.166 | 0.006 | 0.000 |
| -13.0 | 302.085 * | 137.668 * | 15.172 | 0.007 | 0.000 |
| -15.0 | 298.237 * | 135.576 * | 15.070 | 0.008 | 0.000 |
| -17.0 | 293.658 * | 132.990 * | 14.855 | 0.009 | 0.000 |
| -19.5 | 286.939 * | 129.074 * | 14.424 | 0.010 | 0.000 |
| -22.5 | 277.599 * | 123.398 * | 13.655 | 0.011 | 0.000 |
| -25.5 | 267.007 * | 117.898 * | 12.604 | 0.012 | 0.000 |
| -29.0 | 253.144 * | 108.568 * | 11.008 | 0.012 | 0.000 |
| -33.0 | 234.494 * | 97.588 * | 8.689 | 0.012 | 0.000 |
| -37.5 | 209.735 * | 83.650 * | 7.322 | 0.012 | 0.000 |
| -42.5 | 176.262 * | 66.428 | 5.448 | 0.011 | 0.000 |
| -47.5 | 142.977 * | 49.622 | 3.085 | 0.009 | 0.000 |
| -55.0 | 88.899 * | 26.952 | 1.632 | 0.004 | 0.000 |
| -65.0 | 29.270 | 6.330 | 0.374 | 0.000 | 0.000 |
| -75.0 | 3.300 | 0.672 | 0.052 | 0.000 | 0.000 |
| -85.0 | 0.060 | 0.000 | 0.000 | 0.000 | 0.000 |
| -90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

LUMEN TABULATION

Average Of Right And Left Sides

Total Luminaire Lumens (one side of beam only) = 816.71

Total Field Lumens (one side of beam only) = 804.02

* Indicates Values Inside Field Edge

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-----------------|-------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| | <u>0</u> | <u>1</u> | <u>3</u> | <u>5</u> | <u>7</u> | <u>9</u> | <u>11</u> | <u>13</u> | <u>15</u> | <u>17</u> |
| 90 | | | | | | | | | | |
| 85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 65 | 0.01 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 55 | 0.23 * | 0.47 * | 0.48 * | 0.49 * | 0.50 * | 0.50 * | 0.50 * | 0.50 * | 0.49 * | 0.60 * |
| 47.5 | 0.51 * | 1.04 * | 1.05 * | 1.05 * | 1.05 * | 1.04 * | 1.03 * | 1.01 * | 0.99 * | 1.21 * |
| 42.5 | 0.55 * | 1.10 * | 1.09 * | 1.08 * | 1.07 * | 1.05 * | 1.04 * | 1.02 * | 1.00 * | 1.23 * |
| 37.5 | 0.67 * | 1.36 * | 1.36 * | 1.36 * | 1.36 * | 1.34 * | 1.32 * | 1.30 * | 1.28 * | 1.55 * |
| 33 | 0.72 * | 1.44 * | 1.45 * | 1.45 * | 1.44 * | 1.43 * | 1.41 * | 1.39 * | 1.36 * | 1.65 * |
| 29 | 0.71 * | 1.42 * | 1.42 * | 1.41 * | 1.40 * | 1.39 * | 1.37 * | 1.35 * | 1.32 * | 1.61 * |
| 25.5 | 0.65 * | 1.30 * | 1.29 * | 1.29 * | 1.28 * | 1.27 * | 1.25 * | 1.23 * | 1.20 * | 1.47 * |
| 22.5 | 0.57 * | 1.14 * | 1.14 * | 1.14 * | 1.13 * | 1.12 * | 1.10 * | 1.08 * | 1.06 * | 1.30 * |
| 19.5 | 0.58 * | 1.17 * | 1.17 * | 1.16 * | 1.15 * | 1.14 * | 1.13 * | 1.11 * | 1.09 * | 1.32 * |
| 17 | 0.50 * | 0.99 * | 0.99 * | 0.99 * | 0.98 * | 0.97 * | 0.95 * | 0.94 * | 0.92 * | 1.12 * |
| 15 | 0.40 * | 0.80 * | 0.80 * | 0.80 * | 0.79 * | 0.78 * | 0.77 * | 0.76 * | 0.75 * | 0.91 * |
| 13 | 0.40 * | 0.81 * | 0.81 * | 0.81 * | 0.80 * | 0.79 * | 0.78 * | 0.77 * | 0.75 * | 0.92 * |
| 11 | 0.41 * | 0.82 * | 0.82 * | 0.81 * | 0.81 * | 0.80 * | 0.79 * | 0.77 * | 0.76 * | 0.92 * |
| 9 | 0.41 * | 0.82 * | 0.82 * | 0.82 * | 0.81 * | 0.80 * | 0.79 * | 0.78 * | 0.76 * | 0.93 * |
| 7 | 0.41 * | 0.83 * | 0.82 * | 0.82 * | 0.81 * | 0.81 * | 0.79 * | 0.78 * | 0.77 * | 0.94 * |
| 5 | 0.41 * | 0.83 * | 0.83 * | 0.82 * | 0.82 * | 0.81 * | 0.80 * | 0.78 * | 0.77 * | 0.94 * |
| 3 | 0.42 * | 0.83 * | 0.83 * | 0.82 * | 0.82 * | 0.81 * | 0.80 * | 0.79 * | 0.77 * | 0.94 * |
| 1 | 0.42 * | 0.83 * | 0.83 * | 0.83 * | 0.82 * | 0.81 * | 0.80 * | 0.79 * | 0.77 * | 0.94 * |
| 0 | 0.21 * | 0.42 * | 0.42 * | 0.41 * | 0.41 * | 0.41 * | 0.40 * | 0.39 * | 0.39 * | 0.47 * |
| -1 | 0.21 * | 0.42 * | 0.42 * | 0.41 * | 0.41 * | 0.41 * | 0.40 * | 0.39 * | 0.39 * | 0.47 * |
| | 0.42 * | 0.83 * | 0.83 * | 0.83 * | 0.82 * | 0.81 * | 0.80 * | 0.79 * | 0.77 * | 0.94 * |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

LUMENS TABULATION - (Cont.)

| | | | | | | | | | | |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| -3 | 0.42 * | 0.83 * | 0.83 * | 0.82 * | 0.82 * | 0.81 * | 0.80 * | 0.78 * | 0.77 * | 0.94 * |
| -5 | 0.42 * | 0.83 * | 0.83 * | 0.82 * | 0.81 * | 0.81 * | 0.80 * | 0.78 * | 0.77 * | 0.94 * |
| -7 | 0.41 * | 0.83 * | 0.82 * | 0.82 * | 0.81 * | 0.80 * | 0.79 * | 0.78 * | 0.76 * | 0.93 * |
| -9 | 0.41 * | 0.82 * | 0.82 * | 0.81 * | 0.81 * | 0.80 * | 0.79 * | 0.77 * | 0.76 * | 0.93 * |
| -11 | 0.41 * | 0.82 * | 0.81 * | 0.81 * | 0.80 * | 0.79 * | 0.78 * | 0.77 * | 0.75 * | 0.92 * |
| -13 | 0.41 * | 0.81 * | 0.81 * | 0.80 * | 0.79 * | 0.78 * | 0.77 * | 0.76 * | 0.75 * | 0.91 * |
| -15 | 0.40 * | 0.80 * | 0.80 * | 0.79 * | 0.79 * | 0.78 * | 0.77 * | 0.75 * | 0.74 * | 0.90 * |
| -17 | 0.50 * | 0.99 * | 0.98 * | 0.98 * | 0.97 * | 0.96 * | 0.94 * | 0.93 * | 0.91 * | 1.11 * |
| -19.5 | 0.58 * | 1.16 * | 1.16 * | 1.15 * | 1.14 * | 1.13 * | 1.11 * | 1.09 * | 1.07 * | 1.31 * |
| -22.5 | 0.57 * | 1.14 * | 1.13 * | 1.13 * | 1.12 * | 1.10 * | 1.09 * | 1.07 * | 1.05 * | 1.28 * |
| -25.5 | 0.65 * | 1.29 * | 1.28 * | 1.28 * | 1.26 * | 1.25 * | 1.23 * | 1.21 * | 1.19 * | 1.45 * |
| -29 | 0.71 * | 1.42 * | 1.41 * | 1.40 * | 1.39 * | 1.37 * | 1.35 * | 1.33 * | 1.30 * | 1.59 * |
| -33 | 0.76 * | 1.52 * | 1.51 * | 1.50 * | 1.48 * | 1.47 * | 1.44 * | 1.42 * | 1.39 * | 1.70 * |
| -37.5 | 0.79 * | 1.57 * | 1.57 * | 1.55 * | 1.54 * | 1.52 * | 1.49 * | 1.47 * | 1.44 * | 1.75 * |
| -42.5 | 0.72 * | 1.44 * | 1.43 * | 1.42 * | 1.40 * | 1.38 * | 1.36 * | 1.33 * | 1.31 * | 1.59 * |
| -47.5 | 0.87 * | 1.74 * | 1.73 * | 1.71 * | 1.69 * | 1.67 * | 1.64 * | 1.60 * | 1.57 * | 1.90 * |
| -55 | 0.73 * | 1.45 * | 1.44 * | 1.43 * | 1.41 * | 1.39 * | 1.36 * | 1.33 * | 1.29 * | 1.57 * |
| -65 | 0.30 * | 0.61 * | 0.60 * | 0.59 * | 0.58 * | 0.57 * | 0.56 * | 0.54 * | 0.52 * | 0.63 * |
| -75 | 0.06 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | 0.10 |
| -85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| -90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 19.91 | 39.85 | 39.76 | 39.54 | 39.21 | 38.78 | 38.23 | 37.57 | 36.83 | 44.86 |

Vert. Horizontal Angles

| | <u>19.5</u> | <u>22.5</u> | <u>25.5</u> | <u>29</u> | <u>33</u> | <u>37.5</u> | <u>42.5</u> | <u>47.5</u> | <u>55</u> | <u>65</u> |
|-----------|-------------|-------------|-------------|-----------|-----------|-------------|-------------|-------------|-----------|-----------|
| 90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 75 | 0.04 | 0.04 | 0.05 | 0.06 | 0.05 | 0.03 | 0.02 | 0.01 | 0.00 | 0.00 |
| 65 | 0.68 * | 0.63 * | 0.68 * | 0.67 | 0.59 | 0.49 | 0.34 | 0.25 | 0.08 | 0.01 |
| 55 | 1.39 * | 1.30 * | 1.40 * | 1.41 * | 1.31 * | 1.12 * | 0.80 * | 0.66 | 0.27 | 0.03 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

LUMENS TABULATION - (Cont.)

| | | | | | | | | | | |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 47.5 | 1.42 * | 1.34 * | 1.46 * | 1.50 * | 1.43 * | 1.25 * | 0.92 * | 0.83 * | 0.38 | 0.04 |
| 42.5 | 1.79 * | 1.72 * | 1.88 * | 1.94 * | 1.87 * | 1.66 * | 1.25 * | 1.18 * | 0.58 * | 0.08 |
| 37.5 | 1.90 * | 1.81 * | 2.01 * | 2.09 * | 2.02 * | 1.82 * | 1.39 * | 1.35 * | 0.70 * | 0.11 |
| 33 | 1.86 * | 1.77 * | 1.95 * | 2.05 * | 2.02 * | 1.84 * | 1.43 * | 1.41 * | 0.77 * | 0.13 |
| 29 | 1.70 * | 1.63 * | 1.79 * | 1.89 * | 1.89 * | 1.75 * | 1.38 * | 1.38 * | 0.79 * | 0.15 |
| 25.5 | 1.50 * | 1.44 * | 1.58 * | 1.67 * | 1.69 * | 1.59 * | 1.26 * | 1.28 * | 0.74 * | 0.15 |
| 22.5 | 1.53 * | 1.47 * | 1.62 * | 1.71 * | 1.74 * | 1.65 * | 1.32 * | 1.35 * | 0.80 * | 0.16 |
| 19.5 | 1.30 * | 1.24 * | 1.37 * | 1.46 * | 1.48 * | 1.41 * | 1.13 * | 1.17 * | 0.71 * | 0.15 |
| 17 | 1.05 * | 1.01 * | 1.11 * | 1.18 * | 1.20 * | 1.15 * | 0.93 * | 0.96 * | 0.59 * | 0.13 |
| 15 | 1.06 * | 1.02 * | 1.12 * | 1.19 * | 1.21 * | 1.16 * | 0.94 * | 0.98 * | 0.61 * | 0.13 |
| 13 | 1.07 * | 1.02 * | 1.13 * | 1.20 * | 1.22 * | 1.17 * | 0.96 * | 1.00 * | 0.63 * | 0.14 |
| 11 | 1.08 * | 1.03 * | 1.14 * | 1.21 * | 1.23 * | 1.18 * | 0.97 * | 1.02 * | 0.64 * | 0.14 |
| 9 | 1.08 * | 1.04 * | 1.14 * | 1.21 * | 1.23 * | 1.19 * | 0.98 * | 1.03 * | 0.65 * | 0.15 * |
| 7 | 1.09 * | 1.04 * | 1.15 * | 1.22 * | 1.24 * | 1.20 * | 0.98 * | 1.04 * | 0.66 * | 0.15 * |
| 5 | 1.09 * | 1.04 * | 1.15 * | 1.22 * | 1.24 * | 1.20 * | 0.99 * | 1.05 * | 0.67 * | 0.15 * |
| 3 | 1.09 * | 1.04 * | 1.15 * | 1.22 * | 1.24 * | 1.20 * | 0.99 * | 1.05 * | 0.68 * | 0.16 * |
| 1 | 0.55 * | 0.52 * | 0.58 * | 0.61 * | 0.62 * | 0.60 * | 0.50 * | 0.53 * | 0.34 * | 0.08 * |
| 0 | 0.55 * | 0.52 * | 0.58 * | 0.61 * | 0.62 * | 0.60 * | 0.50 * | 0.53 * | 0.34 * | 0.08 * |
| -1 | 1.09 * | 1.04 * | 1.15 * | 1.22 * | 1.24 * | 1.20 * | 0.99 * | 1.06 * | 0.68 * | 0.16 * |
| -3 | 1.09 * | 1.04 * | 1.15 * | 1.22 * | 1.24 * | 1.20 * | 0.99 * | 1.06 * | 0.69 * | 0.16 * |
| -5 | 1.09 * | 1.04 * | 1.15 * | 1.21 * | 1.23 * | 1.19 * | 0.99 * | 1.05 * | 0.69 * | 0.16 * |
| -7 | 1.08 * | 1.03 * | 1.14 * | 1.21 * | 1.23 * | 1.19 * | 0.98 * | 1.05 * | 0.68 * | 0.16 * |
| -9 | 1.07 * | 1.03 * | 1.13 * | 1.20 * | 1.22 * | 1.18 * | 0.98 * | 1.04 * | 0.68 * | 0.16 * |
| -11 | 1.07 * | 1.02 * | 1.13 * | 1.19 * | 1.21 * | 1.17 * | 0.97 * | 1.03 * | 0.67 * | 0.16 * |
| -13 | 1.06 * | 1.01 * | 1.12 * | 1.18 * | 1.20 * | 1.16 * | 0.96 * | 1.02 * | 0.66 * | 0.16 * |
| -15 | 1.05 * | 1.00 * | 1.10 * | 1.17 * | 1.19 * | 1.15 * | 0.95 * | 1.01 * | 0.65 * | 0.16 * |
| -17 | 1.29 * | 1.23 * | 1.36 * | 1.44 * | 1.46 * | 1.41 * | 1.17 * | 1.24 * | 0.80 * | 0.19 * |
| -19.5 | 1.52 * | 1.45 * | 1.60 * | 1.70 * | 1.72 * | 1.66 * | 1.37 * | 1.45 * | 0.93 * | 0.22 * |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

LUMENS TABULATION - (Cont.)

| | | | | | | | | | | |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| -22.5 | 1.48 * | 1.42 * | 1.56 * | 1.66 * | 1.68 * | 1.62 * | 1.33 * | 1.40 * | 0.90 * | 0.21 |
| -25.5 | 1.68 * | 1.61 * | 1.77 * | 1.87 * | 1.90 * | 1.82 * | 1.49 * | 1.56 * | 0.99 * | 0.23 |
| -29 | 1.84 * | 1.76 * | 1.94 * | 2.05 * | 2.07 * | 1.98 * | 1.61 * | 1.68 * | 1.06 * | 0.24 |
| -33 | 1.96 * | 1.87 * | 2.06 * | 2.18 * | 2.19 * | 2.08 * | 1.68 * | 1.74 * | 1.07 * | 0.23 |
| -37.5 | 2.02 * | 1.93 * | 2.12 * | 2.24 * | 2.25 * | 2.12 * | 1.67 * | 1.70 * | 1.02 * | 0.21 |
| -42.5 | 1.83 * | 1.74 * | 1.90 * | 1.99 * | 2.01 * | 1.86 * | 1.42 * | 1.41 * | 0.83 * | 0.16 |
| -47.5 | 2.20 * | 2.09 * | 2.29 * | 2.38 * | 2.35 * | 2.13 * | 1.61 * | 1.57 * | 0.88 * | 0.16 |
| -55 | 1.82 * | 1.74 * | 1.89 * | 1.92 * | 1.81 * | 1.61 * | 1.23 * | 1.14 * | 0.58 | 0.09 |
| -65 | 0.72 * | 0.67 * | 0.71 * | 0.69 | 0.64 | 0.56 | 0.41 | 0.34 | 0.15 | 0.02 |
| -75 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.08 | 0.05 | 0.04 | 0.02 | 0.00 |
| -85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| -90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 51.89 | 49.54 | 54.44 | 57.15 | 57.04 | 53.65 | 42.79 | 43.64 | 26.26 | 5.54 |

| Vert. Angles | Horizontal Angles | | | |
|-----------------|-------------------|-----------|-----------|--------------|
| | <u>75</u> | <u>85</u> | <u>90</u> | <u>Total</u> |
| 90 | | | | |
| | 0.00 | 0.00 | 0.00 | |
| 85 | | | | |
| | 0.00 | 0.00 | 0.00 | |
| 75 | | | | |
| | 0.00 | 0.00 | | 0.57 |
| 65 | | | | |
| | 0.00 | 0.00 | | 9.17 |
| 55 | | | | |
| | 0.00 | 0.00 | | 19.66 |
| 47.5 | | | | |
| | 0.00 | 0.00 | | 20.79 |
| 42.5 | | | | |
| | 0.00 | 0.00 | | 26.86 |
| 37.5 | | | | |
| | 0.00 | 0.00 | | 28.94 |
| 33 | | | | |
| | 0.00 | 0.00 | | 28.65 |
| 29 | | | | |
| | 0.00 | 0.00 | | 26.56 |
| 25.5 | | | | |
| | 0.01 | 0.00 | | 23.68 |
| 22.5 | | | | |
| | 0.01 | 0.00 | | 24.38 |
| 19.5 | | | | |
| | 0.01 | 0.00 | | 20.77 |
| 17 | | | | |
| | 0.01 | 0.00 | | 16.87 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

LUMENS TABULATION - (Cont.)

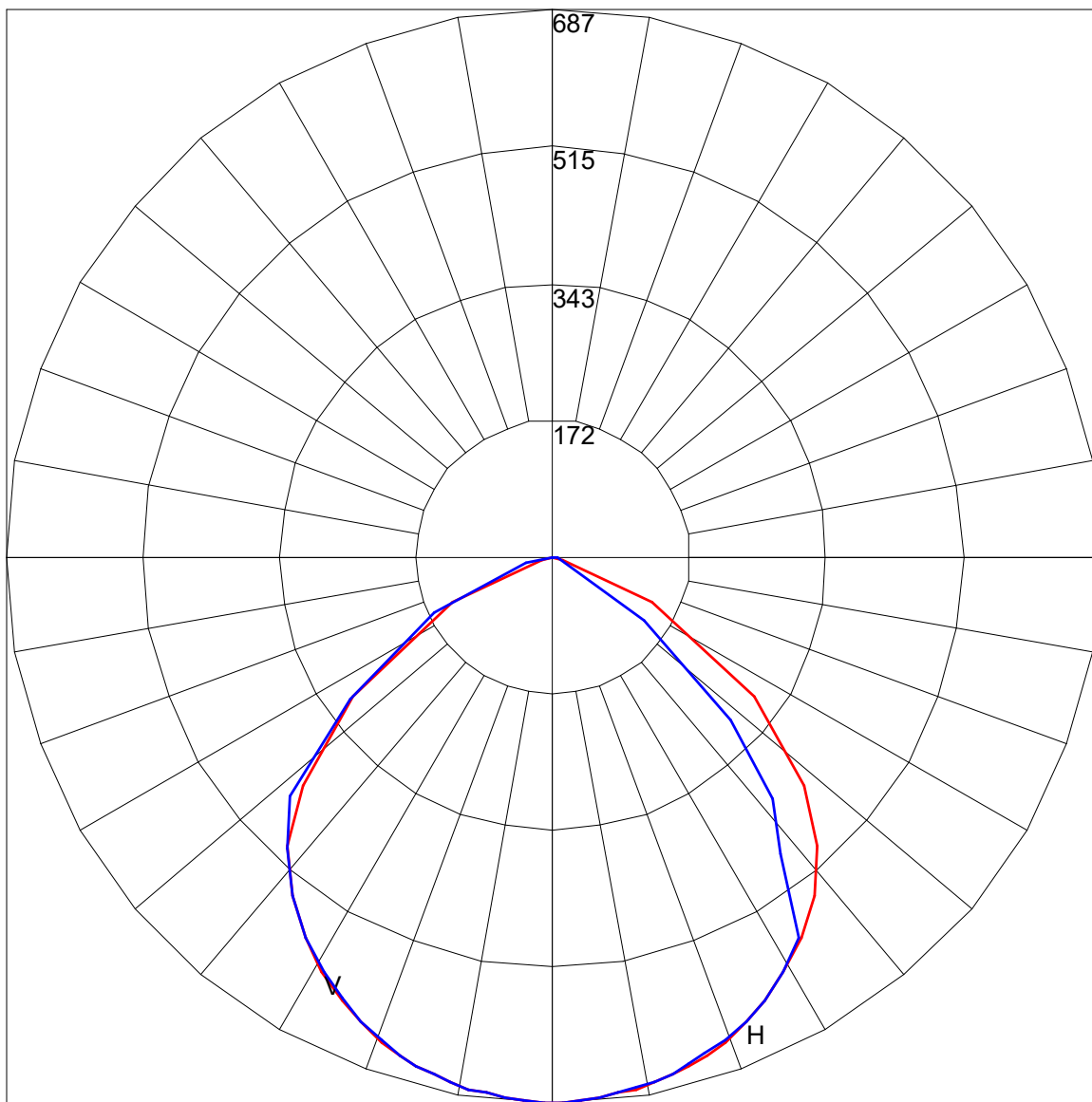
| | | | |
|--------------|------|------|-------|
| 15 | | | |
| | 0.01 | 0.00 | 17.07 |
| 13 | | | |
| | 0.01 | 0.00 | 17.24 |
| 11 | | | |
| | 0.01 | 0.00 | 17.38 |
| 9 | | | |
| | 0.01 | 0.00 | 17.49 |
| 7 | | | |
| | 0.01 | 0.00 | 17.58 |
| 5 | | | |
| | 0.01 | 0.00 | 17.64 |
| 3 | | | |
| | 0.01 | 0.00 | 17.68 |
| 1 | | | |
| | 0.00 | 0.00 | 8.84 |
| 0 | | | |
| | 0.00 | 0.00 | 8.84 |
| -1 | | | |
| | 0.01 | 0.00 | 17.69 |
| -3 | | | |
| | 0.01 | 0.00 | 17.66 |
| -5 | | | |
| | 0.01 | 0.00 | 17.60 |
| -7 | | | |
| | 0.01 | 0.00 | 17.52 |
| -9 | | | |
| | 0.01 | 0.00 | 17.42 |
| -11 | | | |
| | 0.01 | 0.00 | 17.29 |
| -13 | | | |
| | 0.01 | 0.00 | 17.13 |
| -15 | | | |
| | 0.01 | 0.00 | 16.94 |
| -17 | | | |
| | 0.01 | 0.00 | 20.88 |
| -19.5 | | | |
| | 0.01 | 0.00 | 24.55 |
| -22.5 | | | |
| | 0.01 | 0.00 | 23.93 |
| -25.5 | | | |
| | 0.01 | 0.00 | 27.02 |
| -29 | | | |
| | 0.01 | 0.00 | 29.52 |
| -33 | | | |
| | 0.01 | 0.00 | 31.27 |
| -37.5 | | | |
| | 0.01 | 0.00 | 31.97 |
| -42.5 | | | |
| | 0.01 | 0.00 | 28.52 |
| -47.5 | | | |
| | 0.00 | 0.00 | 33.77 |
| -55 | | | |
| | 0.00 | 0.00 | 27.23 |
| -65 | | | |
| | 0.00 | 0.00 | 10.42 |

IES FLOOD REPORT
PHOTOMETRIC FILENAME : TSFL-LED-01L-W-40.IES

LUMENS TABULATION - (Cont.)

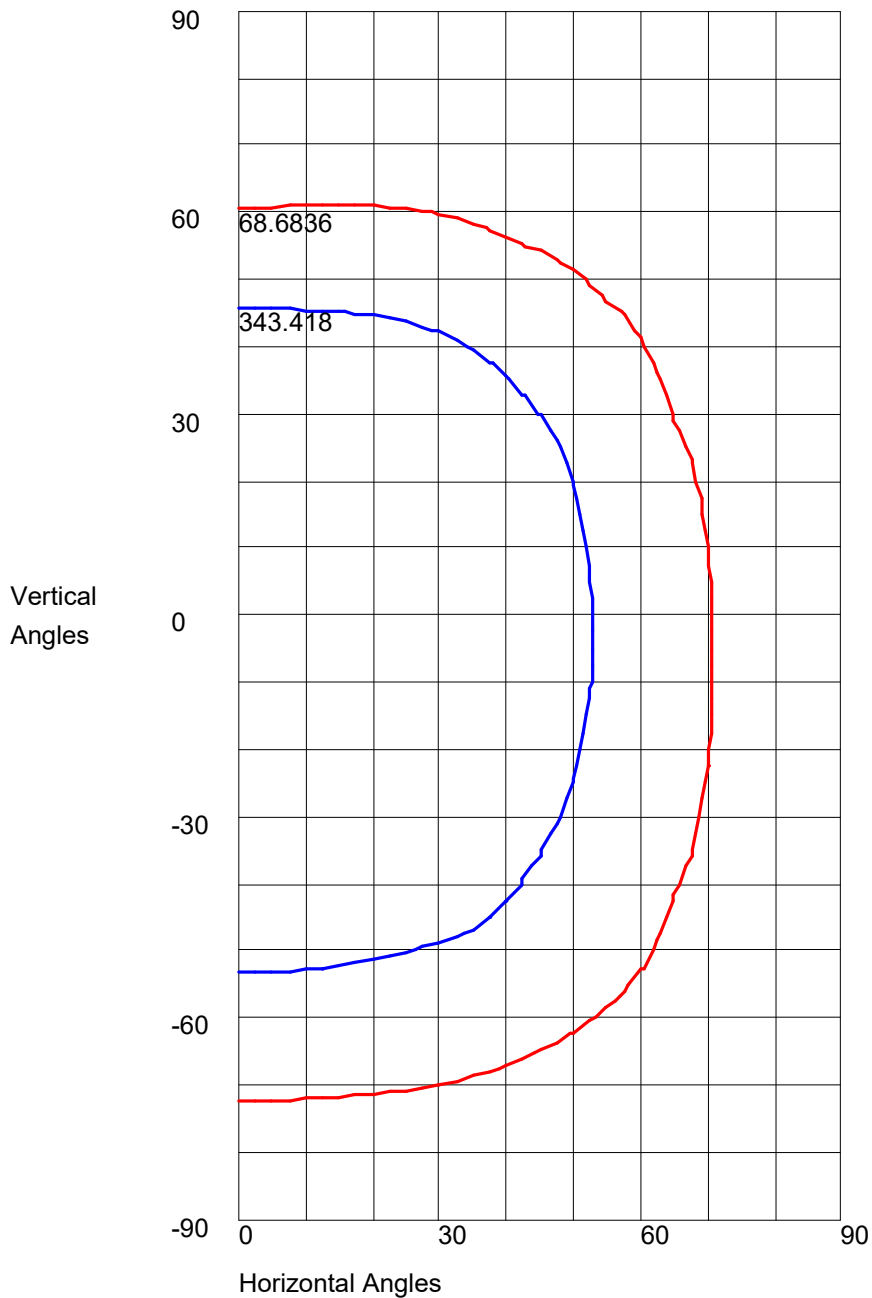
| | | | |
|--------------|------|------|--------|
| -75 | 0.00 | 0.00 | 1.67 |
| -85 | 0.00 | 0.00 | 0.05 |
| -90 | | | |
| Total | 0.24 | 0.00 | 816.71 |

AXIAL CANDELA DISPLAY



Maximum Candela = 686.836 Located At Horizontal Angle = 0, Vertical Angle = 0
H - Horizontal Axial Candela
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 686.836 Located At Horizontal Angle = 0, Vertical Angle = 0
50% Maximum Candela = 343.418
10% Maximum Candela = 68.6836