



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HETG-AR14-L38-850-A-DIM-UNV.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]GEN FROM ORIGINAL TEST  
 [TESTLAB]Intertek  
 [ISSUE DATE] 03/18/2019  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT]HETG-AR14-L38-850-A-DIM-UNV  
 [LUMINAIRE]1X4 RECESSED GRID LUMINAIRE  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LAMP]LED  
 [LAMPCAT] HLM 80 CRI 5000K CCT  
 [\_SEARCH\_APPLICATION] INDOOR  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 4121            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 139             |
| Total Luminaire Watts           | 29.7            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.22            |
| Spacing Criterion (90-270)      | 1.22            |
| Spacing Criterion (Diagonal)    | 1.32            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 3.92 ft         |
| Luminous Width (90-270)         | 0.92 ft         |
| Luminous Height                 | 0.00 ft         |

### LUMINANCE DATA (cd/sq.m)

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 4258             | 4305              | 4233              |
| 55                  | 3608             | 3796              | 3476              |
| 65                  | 2856             | 3161              | 2158              |
| 75                  | 2190             | 2170              | 1132              |
| 85                  | 1535             | 751               | 354               |

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**CANDELA TABULATION**

|              | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> | <u>202.5</u> |
|--------------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| <b>0.0</b>   | 1725.880   | 1725.880    | 1725.880    | 1725.880    | 1725.880    | 1725.880     | 1725.880     | 1725.880     | 1725.880     | 1725.880     |
| <b>2.5</b>   | 1697.696   | 1705.296    | 1722.080    | 1743.402    | 1760.608    | 1742.980     | 1719.863     | 1703.290     | 1695.796     | 1703.290     |
| <b>5.0</b>   | 1692.523   | 1700.968    | 1720.285    | 1741.714    | 1757.970    | 1738.547     | 1716.485     | 1698.012     | 1688.829     | 1698.012     |
| <b>7.5</b>   | 1683.340   | 1693.473    | 1713.213    | 1732.424    | 1746.041    | 1726.830     | 1707.829     | 1689.357     | 1678.801     | 1689.357     |
| <b>10.0</b>  | 1671.517   | 1682.390    | 1699.807    | 1714.479    | 1724.930    | 1706.457     | 1691.890     | 1676.584     | 1664.128     | 1676.584     |
| <b>12.5</b>  | 1655.895   | 1666.662    | 1677.851    | 1689.462    | 1699.279    | 1680.173     | 1668.878     | 1658.111     | 1645.233     | 1658.111     |
| <b>15.0</b>  | 1634.572   | 1646.394    | 1652.411    | 1663.706    | 1670.778    | 1651.989     | 1640.061     | 1634.888     | 1621.588     | 1634.888     |
| <b>17.5</b>  | 1608.393   | 1620.321    | 1623.594    | 1631.722    | 1635.416    | 1616.838     | 1609.871     | 1607.127     | 1594.776     | 1607.127     |
| <b>20.0</b>  | 1578.098   | 1589.287    | 1590.976    | 1592.665    | 1594.671    | 1575.776     | 1575.459     | 1574.615     | 1563.531     | 1574.615     |
| <b>22.5</b>  | 1544.742   | 1553.292    | 1551.708    | 1550.231    | 1553.186    | 1531.969     | 1534.186     | 1536.402     | 1526.797     | 1536.402     |
| <b>25.0</b>  | 1506.107   | 1512.757    | 1506.635    | 1508.852    | 1513.602    | 1490.485     | 1487.846     | 1493.440     | 1486.473     | 1493.440     |
| <b>27.5</b>  | 1461.245   | 1467.789    | 1458.184    | 1465.467    | 1465.573    | 1445.094     | 1438.444     | 1446.361     | 1441.189     | 1446.361     |
| <b>30.0</b>  | 1410.366   | 1418.599    | 1408.571    | 1413.638    | 1411.949    | 1391.893     | 1388.198     | 1395.060     | 1389.993     | 1395.060     |
| <b>32.5</b>  | 1353.892   | 1362.653    | 1357.059    | 1356.848    | 1350.936    | 1334.364     | 1335.208     | 1338.164     | 1332.464     | 1338.164     |
| <b>35.0</b>  | 1292.563   | 1301.324    | 1298.685    | 1294.357    | 1286.018    | 1271.029     | 1275.145     | 1275.462     | 1269.973     | 1275.462     |
| <b>37.5</b>  | 1227.644   | 1235.667    | 1234.717    | 1228.066    | 1219.938    | 1204.738     | 1209.910     | 1208.433     | 1204.421     | 1208.433     |
| <b>40.0</b>  | 1158.187   | 1165.576    | 1166.526    | 1160.087    | 1151.220    | 1137.181     | 1141.086     | 1137.392     | 1133.908     | 1137.392     |
| <b>42.5</b>  | 1085.035   | 1093.163    | 1094.746    | 1090.735    | 1079.229    | 1067.512     | 1069.307     | 1064.662     | 1062.234     | 1064.662     |
| <b>45.0</b>  | 1009.772   | 1018.639    | 1020.961    | 1017.794    | 1003.860    | 995.627      | 995.416      | 990.877      | 986.338      | 990.877      |
| <b>47.5</b>  | 932.292    | 943.692     | 946.753     | 944.325     | 926.380     | 920.364      | 920.047      | 913.502      | 905.902      | 913.502      |
| <b>50.0</b>  | 855.340    | 868.218     | 874.235     | 870.540     | 849.956     | 845.523      | 845.839      | 834.861      | 826.100      | 834.861      |
| <b>52.5</b>  | 774.376    | 790.421     | 802.138     | 794.432     | 762.871     | 769.626      | 774.693      | 757.170      | 746.615      | 757.170      |
| <b>55.0</b>  | 693.941    | 714.208     | 730.147     | 711.464     | 668.712     | 684.863      | 704.074      | 681.274      | 667.129      | 681.274      |
| <b>57.5</b>  | 616.144    | 640.423     | 660.268     | 623.428     | 576.982     | 597.672      | 635.145      | 608.650      | 589.544      | 608.650      |
| <b>60.0</b>  | 541.831    | 569.804     | 591.760     | 538.031     | 479.552     | 510.164      | 566.321      | 539.403      | 515.231      | 539.403      |
| <b>62.5</b>  | 471.213    | 502.564     | 518.925     | 447.145     | 388.138     | 421.495      | 493.485      | 474.907      | 445.668      | 474.907      |
| <b>65.0</b>  | 404.816    | 439.967     | 447.990     | 361.326     | 305.908     | 338.631      | 425.084      | 414.739      | 381.066      | 414.739      |
| <b>67.5</b>  | 342.959    | 381.910     | 378.427     | 284.269     | 235.395     | 264.740      | 355.626      | 359.110      | 322.164      | 359.110      |
| <b>70.0</b>  | 286.908    | 327.759     | 310.447     | 218.295     | 177.233     | 200.878      | 288.702      | 306.858      | 268.013      | 306.858      |
| <b>72.5</b>  | 236.240    | 277.091     | 247.007     | 162.665     | 131.737     | 148.204      | 226.845      | 257.774      | 219.034      | 257.774      |
| <b>75.0</b>  | 190.111    | 226.739     | 188.316     | 117.909     | 98.275      | 107.247      | 170.371      | 208.795      | 174.594      | 208.795      |
| <b>77.5</b>  | 147.993    | 178.816     | 134.904     | 83.813      | 75.369      | 79.697       | 119.914      | 163.193      | 135.009      | 163.193      |
| <b>80.0</b>  | 109.675    | 133.426     | 87.297      | 59.852      | 52.990      | 56.685       | 78.852       | 119.703      | 99.436       | 119.703      |
| <b>82.5</b>  | 73.469     | 90.041      | 50.140      | 35.468      | 27.973      | 31.773       | 44.862       | 80.435       | 69.246       | 80.435       |
| <b>85.0</b>  | 44.862     | 48.029      | 21.956      | 12.984      | 10.345      | 11.084       | 18.262       | 41.484       | 41.590       | 41.484       |
| <b>87.5</b>  | 21.428     | 14.145      | 5.806       | 4.750       | 3.800       | 4.011        | 4.961        | 10.239       | 19.423       | 10.239       |
| <b>90.0</b>  | 2.850      | 0.317       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 1.583        | 0.000        |
| <b>92.5</b>  | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>95.0</b>  | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>97.5</b>  | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>100.0</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>102.5</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>105.0</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>107.5</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>110.0</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>112.5</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>115.0</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>117.5</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>120.0</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>122.5</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>125.0</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>127.5</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>130.0</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |
| <b>132.5</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000        | 0.000        | 0.000        | 0.000        | 0.000        |

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**CANDELA TABULATION - (Cont.)**

|       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 135.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 167.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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

|      | <u>225.0</u> | <u>247.5</u> | <u>270.0</u> | <u>292.5</u> | <u>315.0</u> | <u>337.5</u> | <u>360.0</u> |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0.0  | 1725.880     | 1725.880     | 1725.880     | 1725.880     | 1725.880     | 1725.880     | 1725.880     |
| 2.5  | 1719.863     | 1742.980     | 1760.608     | 1743.402     | 1722.080     | 1705.296     | 1697.696     |
| 5.0  | 1716.485     | 1738.547     | 1757.970     | 1741.714     | 1720.285     | 1700.968     | 1692.523     |
| 7.5  | 1707.829     | 1726.830     | 1746.041     | 1732.424     | 1713.213     | 1693.473     | 1683.340     |
| 10.0 | 1691.890     | 1706.457     | 1724.930     | 1714.479     | 1699.807     | 1682.390     | 1671.517     |
| 12.5 | 1668.878     | 1680.173     | 1699.279     | 1689.462     | 1677.851     | 1666.662     | 1655.895     |
| 15.0 | 1640.061     | 1651.989     | 1670.778     | 1663.706     | 1652.411     | 1646.394     | 1634.572     |
| 17.5 | 1609.871     | 1616.838     | 1635.416     | 1631.722     | 1623.594     | 1620.321     | 1608.393     |
| 20.0 | 1575.459     | 1575.776     | 1594.671     | 1592.665     | 1590.976     | 1589.287     | 1578.098     |
| 22.5 | 1534.186     | 1531.969     | 1553.186     | 1550.231     | 1551.708     | 1553.292     | 1544.742     |
| 25.0 | 1487.846     | 1490.485     | 1513.602     | 1508.852     | 1506.635     | 1512.757     | 1506.107     |
| 27.5 | 1438.444     | 1445.094     | 1465.573     | 1465.467     | 1458.184     | 1467.789     | 1461.245     |
| 30.0 | 1388.198     | 1391.893     | 1411.949     | 1413.638     | 1408.571     | 1418.599     | 1410.366     |
| 32.5 | 1335.208     | 1334.364     | 1350.936     | 1356.848     | 1357.059     | 1362.653     | 1353.892     |
| 35.0 | 1275.145     | 1271.029     | 1286.018     | 1294.357     | 1298.685     | 1301.324     | 1292.563     |
| 37.5 | 1209.910     | 1204.738     | 1219.938     | 1228.066     | 1234.717     | 1235.667     | 1227.644     |
| 40.0 | 1141.086     | 1137.181     | 1151.220     | 1160.087     | 1166.526     | 1165.576     | 1158.187     |
| 42.5 | 1069.307     | 1067.512     | 1079.229     | 1090.735     | 1094.746     | 1093.163     | 1085.035     |
| 45.0 | 995.416      | 995.627      | 1003.860     | 1017.794     | 1020.961     | 1018.639     | 1009.772     |
| 47.5 | 920.047      | 920.364      | 926.380      | 944.325      | 946.753      | 943.692      | 932.292      |
| 50.0 | 845.839      | 845.523      | 849.956      | 870.540      | 874.235      | 868.218      | 855.340      |
| 52.5 | 774.693      | 769.626      | 762.871      | 794.432      | 802.138      | 790.421      | 774.376      |
| 55.0 | 704.074      | 684.863      | 668.712      | 711.464      | 730.147      | 714.208      | 693.941      |
| 57.5 | 635.145      | 597.672      | 576.982      | 623.428      | 660.268      | 640.423      | 616.144      |
| 60.0 | 566.321      | 510.164      | 479.552      | 538.031      | 591.760      | 569.804      | 541.831      |
| 62.5 | 493.485      | 421.495      | 388.138      | 447.145      | 518.925      | 502.564      | 471.213      |
| 65.0 | 425.084      | 338.631      | 305.908      | 361.326      | 447.990      | 439.967      | 404.816      |
| 67.5 | 355.626      | 264.740      | 235.395      | 284.269      | 378.427      | 381.910      | 342.959      |
| 70.0 | 288.702      | 200.878      | 177.233      | 218.295      | 310.447      | 327.759      | 286.908      |
| 72.5 | 226.845      | 148.204      | 131.737      | 162.665      | 247.007      | 277.091      | 236.240      |
| 75.0 | 170.371      | 107.247      | 98.275       | 117.909      | 188.316      | 226.739      | 190.111      |
| 77.5 | 119.914      | 79.697       | 75.369       | 83.813       | 134.904      | 178.816      | 147.993      |
| 80.0 | 78.852       | 56.685       | 52.990       | 59.852       | 87.297       | 133.426      | 109.675      |

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**CANDELA TABULATION - (Cont.)**

|       |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|
| 82.5  | 44.862 | 31.773 | 27.973 | 35.468 | 50.140 | 90.041 | 73.469 |
| 85.0  | 18.262 | 11.084 | 10.345 | 12.984 | 21.956 | 48.029 | 44.862 |
| 87.5  | 4.961  | 4.011  | 3.800  | 4.750  | 5.806  | 14.145 | 21.428 |
| 90.0  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.317  | 2.850  |
| 92.5  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 95.0  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 97.5  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 100.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 102.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 105.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 107.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 110.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 112.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 115.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 117.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 120.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 122.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 125.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 127.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 130.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 132.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 135.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 137.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 140.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 142.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 145.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 147.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 150.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 152.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 155.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 157.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 160.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 162.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 165.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 167.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 170.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 172.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 175.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 177.5 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |
| 180.0 | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  | 0.000  |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HETG-AR14-L38-850-A-DIM-UNV.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 628.13  | N.A.  | 15.20  |
| 0-30    | 1319.16 | N.A.  | 32.00  |
| 0-40    | 2121.64 | N.A.  | 51.50  |
| 0-60    | 3518.75 | N.A.  | 85.40  |
| 0-80    | 4085.47 | N.A.  | 99.10  |
| 0-90    | 4121.33 | N.A.  | 100.00 |
| 10-90   | 3957.89 | N.A.  | 96.00  |
| 20-40   | 1493.5  | N.A.  | 36.20  |
| 20-50   | 2267.85 | N.A.  | 55.00  |
| 40-70   | 1787.42 | N.A.  | 43.40  |
| 60-80   | 566.71  | N.A.  | 13.80  |
| 70-80   | 176.41  | N.A.  | 4.30   |
| 80-90   | 35.87   | N.A.  | 0.90   |
| 90-110  | 0.04    | N.A.  | 0.00   |
| 90-120  | 0.04    | N.A.  | 0.00   |
| 90-130  | 0.04    | N.A.  | 0.00   |
| 90-150  | 0.04    | N.A.  | 0.00   |
| 90-180  | 0.04    | N.A.  | 0.00   |
| 110-180 | 0.00    | N.A.  | 0.00   |
| 0-180   | 4121.38 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 163.44 |
| 10-20   | 464.69 |
| 20-30   | 691.03 |
| 30-40   | 802.48 |
| 40-50   | 774.34 |
| 50-60   | 622.77 |
| 60-70   | 390.31 |
| 70-80   | 176.41 |
| 80-90   | 35.87  |
| 90-100  | 0.04   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |

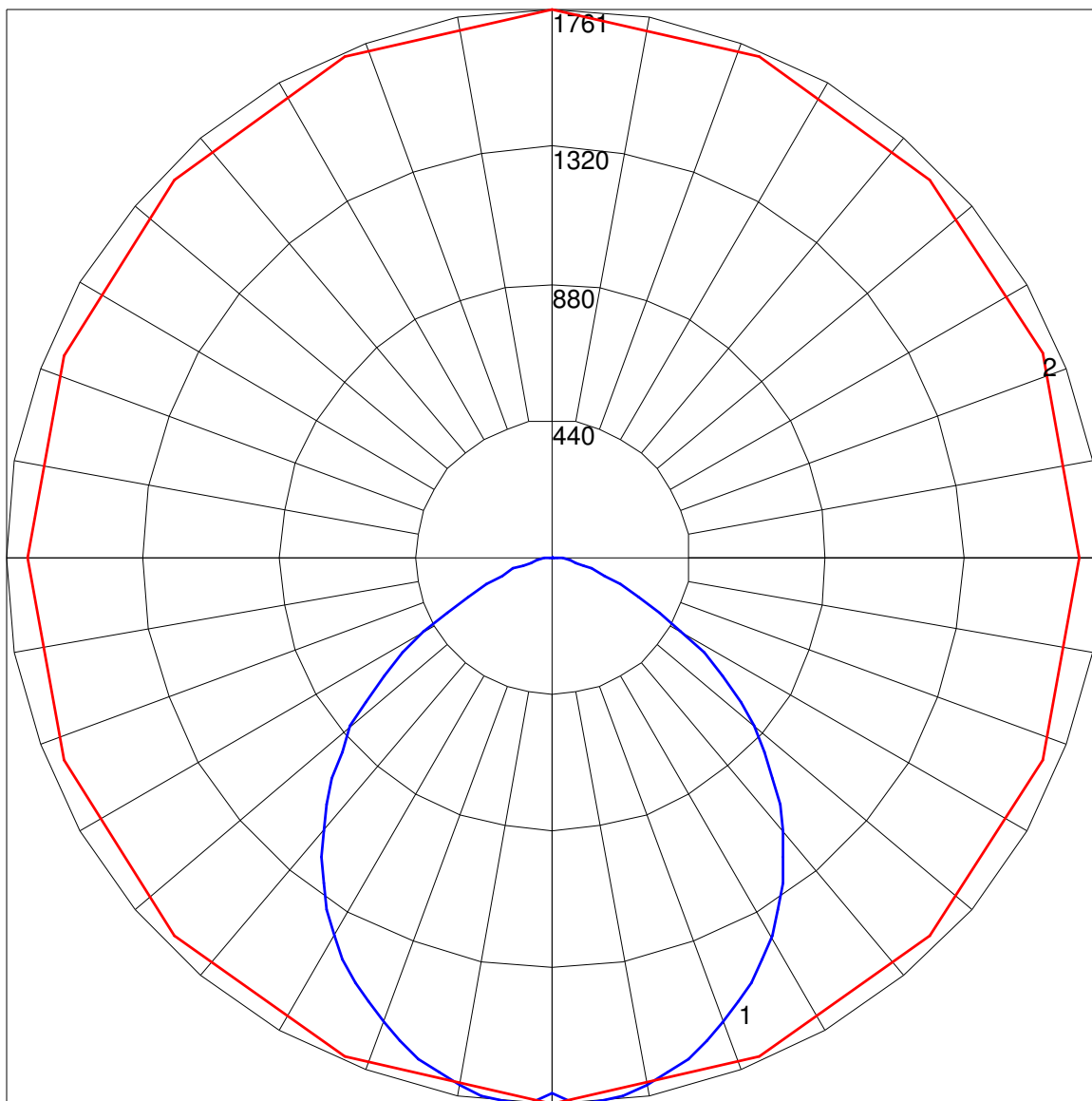
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HETG-AR14-L38-850-A-DIM-UNV.IES**

**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

| RC | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0   |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RW | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| 0  | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1  | 110 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |
| 2  | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 78  | 76  | 73  |
| 3  | 93  | 83  | 75  | 69  | 90  | 81  | 74  | 69  | 78  | 72  | 67  | 76  | 70  | 66  | 73  | 69  | 65  | 63  |
| 4  | 85  | 74  | 66  | 59  | 83  | 73  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 57  | 55  |
| 5  | 79  | 66  | 58  | 52  | 76  | 65  | 57  | 51  | 63  | 56  | 51  | 61  | 55  | 50  | 59  | 54  | 50  | 48  |
| 6  | 73  | 60  | 52  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 45  | 56  | 49  | 44  | 54  | 48  | 44  | 42  |
| 7  | 68  | 55  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 44  | 40  | 50  | 44  | 39  | 37  |
| 8  | 63  | 50  | 42  | 36  | 61  | 49  | 42  | 36  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 35  | 34  |
| 9  | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |
| 10 | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 39  | 33  | 29  | 28  |

POLAR GRAPH



Maximum Candela = 1760.608 Located At Horizontal Angle = 90, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)