



IES INDOOR REPORT
PHOTOMETRIC FILENAME : NLSR48HRA30.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 8,387P3
 [TESTLAB] CSA Group
 [ISSUEDATE] 10/28/2015 1:28:10 PM
 [MANUFAC] LAMAR LIGHTING CO., INC.
 [LUMINAIRE] NLSR48HRA30
 [_ AMBIENT] 24.6 deg C
 [_ POWERFACTOR] 0.9954
 [_ATHD] 4.93%
 [_CURRENT] 0.42386
 [_VOLTAGE] 120.05
 [_STABILIZATION] 35:23.2 Stable
 [_POWER VARIATION] 0.24 %
 [_LIGHT VARIATION] 0.48 %
 [_Lumens] 5,011

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 5011 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 99 |
| Total Luminaire Watts | 50.8 |
| Ballast Factor | 1.00 |
| CIE Type | Semi-Direct |
| Spacing Criterion (0-180) | 1.16 |
| Spacing Criterion (90-270) | 1.38 |
| Spacing Criterion (Diagonal) | 1.40 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 0.16 ft |
| Luminous Width (90-270) | 3.75 ft |
| Luminous Height | 0.10 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45 | 11289 | 15971 | 27021 |
| 55 | 8559 | 14248 | 28511 |
| 65 | 6026 | 12584 | 30899 |
| 75 | 3521 | 11154 | 37031 |
| 85 | 1077 | 10176 | 67399 |

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CANDELA TABULATION

| | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
|--------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 |
| 2.5 | 1354.672 | 1353.771 | 1352.266 | 1354.131 | 1356.807 | 1360.357 | 1357.330 | 1354.663 | 1353.671 | 1352.446 |
| 5.0 | 1347.157 | 1345.112 | 1344.445 | 1347.139 | 1351.914 | 1354.897 | 1352.743 | 1350.698 | 1350.509 | 1349.148 |
| 7.5 | 1334.850 | 1333.048 | 1332.624 | 1336.543 | 1341.931 | 1346.454 | 1346.049 | 1345.517 | 1345.950 | 1345.373 |
| 10.0 | 1317.731 | 1316.667 | 1317.136 | 1322.353 | 1329.912 | 1336.318 | 1337.291 | 1339.093 | 1341.003 | 1340.499 |
| 12.5 | 1296.944 | 1295.908 | 1296.566 | 1303.918 | 1314.235 | 1323.218 | 1327.678 | 1331.182 | 1334.606 | 1335.012 |
| 15.0 | 1270.942 | 1270.879 | 1272.807 | 1282.637 | 1296.089 | 1308.000 | 1315.397 | 1322.028 | 1326.641 | 1327.678 |
| 17.5 | 1241.767 | 1242.182 | 1245.362 | 1258.265 | 1274.969 | 1291.584 | 1301.477 | 1310.414 | 1316.947 | 1319.064 |
| 20.0 | 1207.980 | 1210.097 | 1214.926 | 1231.244 | 1251.669 | 1271.689 | 1286.051 | 1297.377 | 1306.432 | 1308.694 |
| 22.5 | 1170.994 | 1174.075 | 1180.715 | 1201.970 | 1226.054 | 1250.192 | 1268.040 | 1282.655 | 1293.422 | 1296.170 |
| 25.0 | 1130.142 | 1134.701 | 1143.883 | 1168.912 | 1197.753 | 1225.585 | 1247.444 | 1265.869 | 1278.483 | 1282.132 |
| 27.5 | 1086.074 | 1093.102 | 1105.203 | 1133.269 | 1166.849 | 1198.438 | 1224.991 | 1246.975 | 1261.112 | 1266.049 |
| 30.0 | 1040.826 | 1048.458 | 1063.712 | 1096.346 | 1133.170 | 1170.417 | 1200.339 | 1225.747 | 1242.921 | 1248.543 |
| 32.5 | 993.758 | 999.903 | 1020.031 | 1056.792 | 1098.571 | 1139.756 | 1174.246 | 1203.042 | 1221.828 | 1228.396 |
| 35.0 | 943.149 | 951.168 | 973.305 | 1014.724 | 1061.054 | 1106.473 | 1146.351 | 1178.688 | 1199.105 | 1206.394 |
| 37.5 | 891.693 | 901.541 | 926.075 | 971.098 | 1023.680 | 1072.496 | 1116.438 | 1152.938 | 1174.823 | 1181.562 |
| 40.0 | 840.642 | 850.508 | 880.628 | 928.643 | 982.351 | 1038.033 | 1085.291 | 1123.799 | 1147.342 | 1155.487 |
| 42.5 | 788.015 | 799.268 | 834.470 | 883.440 | 941.464 | 1001.083 | 1053.008 | 1093.201 | 1119.411 | 1127.286 |
| 45.0 | 734.847 | 748.235 | 782.032 | 838.399 | 900.144 | 963.953 | 1019.229 | 1061.315 | 1087.498 | 1095.616 |
| 47.5 | 683.309 | 695.680 | 733.801 | 792.069 | 857.581 | 925.093 | 982.513 | 1026.879 | 1054.521 | 1063.072 |
| 50.0 | 630.673 | 644.729 | 685.769 | 746.361 | 815.063 | 885.701 | 945.095 | 991.253 | 1017.689 | 1027.131 |
| 52.5 | 578.838 | 595.417 | 638.187 | 701.726 | 773.148 | 844.066 | 906.460 | 952.618 | 980.486 | 989.298 |
| 55.0 | 528.202 | 545.024 | 590.750 | 656.730 | 731.450 | 804.593 | 866.744 | 913.046 | 939.626 | 948.564 |
| 57.5 | 479.287 | 497.361 | 543.609 | 612.148 | 688.463 | 762.498 | 825.730 | 872.006 | 897.693 | 906.100 |
| 60.0 | 432.300 | 451.059 | 499.812 | 569.612 | 646.179 | 721.232 | 784.420 | 830.344 | 854.472 | 862.428 |
| 62.5 | 385.277 | 405.892 | 456.375 | 527.851 | 604.769 | 680.183 | 742.361 | 785.483 | 809.476 | 817.667 |
| 65.0 | 340.128 | 360.977 | 415.289 | 487.225 | 564.242 | 639.088 | 700.320 | 741.676 | 765.039 | 771.923 |
| 67.5 | 294.402 | 318.098 | 375.077 | 448.590 | 525.400 | 599.688 | 658.541 | 698.158 | 718.322 | 724.386 |
| 70.0 | 252.776 | 278.355 | 336.235 | 410.649 | 486.792 | 559.656 | 616.239 | 654.423 | 673.516 | 679.219 |
| 72.5 | 211.942 | 239.531 | 299.772 | 374.798 | 451.374 | 521.147 | 574.694 | 610.319 | 627.727 | 633.511 |
| 75.0 | 174.208 | 203.500 | 266.218 | 340.263 | 415.487 | 482.774 | 534.789 | 568.450 | 585.641 | 590.092 |
| 77.5 | 137.583 | 168.856 | 233.927 | 307.061 | 382.393 | 447.968 | 496.100 | 527.454 | 541.843 | 546.988 |
| 80.0 | 103.732 | 138.078 | 203.103 | 277.094 | 349.975 | 412.406 | 459.222 | 487.252 | 501.551 | 505.110 |
| 82.5 | 72.747 | 110.273 | 176.785 | 249.613 | 319.531 | 380.213 | 424.101 | 451.653 | 463.024 | 466.862 |
| 85.0 | 44.131 | 86.478 | 152.936 | 224.205 | 291.573 | 349.489 | 390.809 | 416.929 | 427.795 | 431.642 |
| 87.5 | 17.236 | 66.692 | 132.159 | 201.022 | 265.281 | 319.648 | 359.175 | 382.790 | 394.476 | 397.846 |
| 90.0 | 0.351 | 50.943 | 113.490 | 179.759 | 241.468 | 293.420 | 330.658 | 352.120 | 362.887 | 365.797 |
| 92.5 | 0.324 | 40.779 | 97.605 | 160.360 | 218.754 | 268.057 | 302.664 | 324.207 | 334.379 | 337.289 |
| 95.0 | 0.180 | 31.211 | 84.505 | 143.394 | 198.139 | 244.811 | 277.995 | 297.618 | 307.881 | 310.376 |
| 97.5 | 0.117 | 24.660 | 73.179 | 127.699 | 179.786 | 223.259 | 254.289 | 273.426 | 283.049 | 286.212 |
| 100.0 | 0.027 | 20.534 | 63.836 | 114.589 | 162.748 | 203.536 | 233.089 | 251.577 | 260.344 | 263.272 |
| 102.5 | 0.153 | 17.227 | 55.574 | 102.155 | 147.277 | 185.705 | 213.411 | 230.647 | 239.567 | 242.027 |
| 105.0 | 0.000 | 14.921 | 49.114 | 91.289 | 133.060 | 169.010 | 195.490 | 212.582 | 220.754 | 223.637 |
| 107.5 | 0.027 | 13.092 | 43.374 | 81.991 | 120.653 | 153.900 | 178.839 | 194.724 | 203.419 | 206.455 |
| 110.0 | 0.000 | 10.542 | 38.617 | 73.657 | 109.084 | 140.529 | 164.162 | 178.849 | 187.624 | 190.363 |
| 112.5 | 0.009 | 6.803 | 34.445 | 66.187 | 98.714 | 127.960 | 150.116 | 164.658 | 172.794 | 175.380 |
| 115.0 | 0.018 | 4.379 | 31.066 | 59.340 | 89.379 | 116.220 | 136.943 | 151.179 | 159.108 | 161.360 |
| 117.5 | 0.000 | 3.604 | 27.958 | 53.664 | 80.730 | 105.570 | 125.257 | 138.691 | 146.268 | 148.521 |
| 120.0 | 0.090 | 3.163 | 25.183 | 48.627 | 73.260 | 96.281 | 114.319 | 126.978 | 134.537 | 136.619 |
| 122.5 | 0.225 | 2.793 | 22.660 | 43.753 | 66.467 | 87.262 | 104.390 | 116.355 | 123.158 | 126.068 |
| 125.0 | 0.405 | 2.415 | 19.660 | 39.455 | 59.745 | 79.081 | 95.001 | 105.877 | 112.652 | 114.805 |
| 127.5 | 0.451 | 2.343 | 15.092 | 35.959 | 54.060 | 71.774 | 86.280 | 96.767 | 102.912 | 105.291 |
| 130.0 | 0.451 | 2.271 | 10.479 | 32.247 | 48.753 | 64.890 | 77.973 | 87.622 | 93.740 | 95.929 |
| 132.5 | 0.667 | 1.892 | 7.298 | 28.913 | 44.050 | 58.394 | 70.539 | 79.099 | 84.991 | 87.073 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| 135.0 | 0.892 | 1.658 | 6.235 | 25.597 | 39.374 | 52.663 | 63.629 | 71.666 | 76.702 | 78.378 |
| 137.5 | 0.883 | 1.270 | 5.775 | 20.092 | 34.914 | 46.996 | 56.817 | 64.422 | 69.233 | 70.548 |
| 140.0 | 0.910 | 1.108 | 4.856 | 14.074 | 31.139 | 41.554 | 50.907 | 57.619 | 61.962 | 63.043 |
| 142.5 | 1.243 | 1.352 | 4.694 | 9.632 | 26.967 | 37.067 | 45.392 | 51.429 | 55.294 | 56.177 |
| 145.0 | 1.370 | 1.333 | 4.280 | 7.695 | 20.660 | 32.742 | 39.977 | 45.708 | 49.005 | 49.627 |
| 147.5 | 1.550 | 1.568 | 3.802 | 6.739 | 13.740 | 27.462 | 34.923 | 39.797 | 42.843 | 42.680 |
| 150.0 | 1.613 | 1.604 | 3.172 | 5.992 | 9.001 | 19.633 | 29.778 | 34.544 | 37.013 | 37.184 |
| 152.5 | 1.667 | 1.721 | 2.631 | 5.235 | 7.649 | 12.344 | 21.741 | 28.409 | 31.535 | 31.247 |
| 155.0 | 1.721 | 1.775 | 2.126 | 4.550 | 6.758 | 8.668 | 13.398 | 19.399 | 23.453 | 23.300 |
| 157.5 | 1.901 | 1.946 | 1.946 | 3.847 | 5.631 | 7.334 | 8.992 | 11.353 | 14.047 | 14.857 |
| 160.0 | 2.027 | 2.018 | 2.027 | 3.172 | 4.811 | 6.127 | 7.433 | 8.496 | 9.001 | 9.316 |
| 162.5 | 2.153 | 2.090 | 2.090 | 2.343 | 3.613 | 4.956 | 5.947 | 6.776 | 7.280 | 7.604 |
| 165.0 | 2.253 | 2.117 | 2.090 | 2.054 | 2.793 | 3.802 | 4.721 | 5.343 | 5.676 | 5.911 |
| 167.5 | 2.135 | 2.523 | 2.198 | 2.108 | 2.126 | 2.523 | 3.604 | 3.910 | 4.289 | 3.802 |
| 170.0 | 2.487 | 2.298 | 2.271 | 2.243 | 2.198 | 2.243 | 2.325 | 2.658 | 2.910 | 2.406 |
| 172.5 | 2.316 | 2.343 | 2.451 | 2.451 | 2.343 | 2.397 | 2.253 | 2.352 | 2.334 | 2.298 |
| 175.0 | 2.604 | 2.505 | 2.631 | 2.559 | 2.595 | 2.703 | 2.586 | 2.577 | 2.532 | 2.523 |
| 177.5 | 3.063 | 3.036 | 2.838 | 2.883 | 2.856 | 2.694 | 2.766 | 2.766 | 2.775 | 2.802 |
| 180.0 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 |

Vert. 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 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 |
| 2.5 | 1349.806 | 1347.013 | 1343.607 | 1339.291 | 1338.445 | 1343.742 | 1349.031 | 1355.392 | 1356.672 | 1356.456 |
| 5.0 | 1346.527 | 1343.787 | 1340.427 | 1334.985 | 1333.183 | 1338.030 | 1342.959 | 1348.725 | 1351.293 | 1350.941 |
| 7.5 | 1343.058 | 1339.300 | 1334.417 | 1328.047 | 1325.479 | 1329.029 | 1332.597 | 1337.769 | 1341.454 | 1341.301 |
| 10.0 | 1337.958 | 1333.588 | 1327.290 | 1319.181 | 1314.009 | 1315.929 | 1318.740 | 1323.479 | 1326.831 | 1328.155 |
| 12.5 | 1332.102 | 1326.434 | 1318.559 | 1307.540 | 1299.855 | 1299.404 | 1300.567 | 1303.846 | 1308.558 | 1310.333 |
| 15.0 | 1324.398 | 1317.064 | 1307.360 | 1293.710 | 1283.177 | 1279.276 | 1277.798 | 1278.618 | 1284.601 | 1287.448 |
| 17.5 | 1315.316 | 1306.855 | 1294.656 | 1277.249 | 1264.211 | 1254.688 | 1251.516 | 1251.525 | 1257.886 | 1261.292 |
| 20.0 | 1304.252 | 1294.350 | 1279.555 | 1259.292 | 1241.533 | 1229.252 | 1222.035 | 1219.819 | 1226.766 | 1230.036 |
| 22.5 | 1291.484 | 1279.853 | 1262.373 | 1238.316 | 1216.323 | 1199.645 | 1189.221 | 1184.662 | 1190.888 | 1195.447 |
| 25.0 | 1277.032 | 1262.833 | 1242.776 | 1214.981 | 1188.797 | 1167.408 | 1151.541 | 1145.054 | 1152.262 | 1157.704 |
| 27.5 | 1259.571 | 1244.452 | 1221.432 | 1188.833 | 1158.839 | 1132.440 | 1113.456 | 1102.644 | 1110.915 | 1117.330 |
| 30.0 | 1242.344 | 1223.666 | 1197.871 | 1161.867 | 1126.610 | 1095.526 | 1072.037 | 1057.558 | 1065.460 | 1074.668 |
| 32.5 | 1222.342 | 1202.024 | 1173.084 | 1132.854 | 1092.345 | 1056.116 | 1028.672 | 1010.643 | 1017.995 | 1028.510 |
| 35.0 | 1199.465 | 1177.976 | 1145.604 | 1101.680 | 1055.413 | 1015.283 | 982.838 | 961.196 | 968.548 | 980.766 |
| 37.5 | 1173.940 | 1151.100 | 1115.303 | 1067.892 | 1017.184 | 972.017 | 935.625 | 909.388 | 917.173 | 930.967 |
| 40.0 | 1147.487 | 1123.277 | 1084.912 | 1032.537 | 978.360 | 926.958 | 887.007 | 859.482 | 866.636 | 880.475 |
| 42.5 | 1118.799 | 1093.706 | 1052.449 | 998.200 | 937.121 | 882.557 | 838.011 | 806.098 | 813.675 | 827.704 |
| 45.0 | 1087.588 | 1061.351 | 1018.409 | 961.124 | 895.783 | 836.930 | 787.240 | 754.380 | 759.687 | 776.392 |
| 47.5 | 1053.819 | 1026.239 | 983.568 | 923.264 | 854.346 | 791.168 | 737.550 | 702.609 | 706.970 | 723.512 |
| 50.0 | 1017.580 | 990.334 | 946.041 | 883.196 | 812.161 | 745.145 | 688.427 | 650.918 | 655.856 | 672.020 |
| 52.5 | 979.711 | 952.402 | 907.514 | 844.498 | 769.049 | 700.248 | 639.620 | 600.571 | 604.256 | 621.456 |
| 55.0 | 940.004 | 913.263 | 867.258 | 804.917 | 727.467 | 656.874 | 591.633 | 550.655 | 554.466 | 572.207 |
| 57.5 | 898.378 | 871.519 | 827.019 | 762.886 | 686.274 | 610.319 | 545.456 | 502.596 | 504.875 | 523.742 |
| 60.0 | 854.860 | 829.181 | 784.879 | 721.323 | 645.666 | 569.108 | 500.533 | 453.960 | 455.780 | 475.259 |
| 62.5 | 809.702 | 785.474 | 741.955 | 680.030 | 604.274 | 525.346 | 458.113 | 409.730 | 408.856 | 429.254 |
| 65.0 | 764.877 | 741.919 | 699.347 | 639.223 | 563.729 | 486.171 | 416.307 | 364.635 | 362.508 | 384.385 |
| 67.5 | 718.160 | 698.744 | 657.469 | 598.345 | 524.553 | 447.635 | 376.474 | 322.756 | 318.134 | 341.236 |
| 70.0 | 674.029 | 653.585 | 615.311 | 558.206 | 485.936 | 410.342 | 336.839 | 279.373 | 275.021 | 300.979 |
| 72.5 | 628.565 | 610.139 | 575.072 | 519.075 | 450.662 | 374.158 | 300.348 | 240.684 | 234.810 | 262.074 |
| 75.0 | 585.335 | 568.684 | 534.185 | 482.792 | 414.929 | 340.497 | 265.948 | 204.185 | 196.076 | 226.232 |
| 77.5 | 542.276 | 527.950 | 496.262 | 447.914 | 381.159 | 307.863 | 233.620 | 169.622 | 159.405 | 191.300 |
| 80.0 | 501.911 | 488.594 | 459.609 | 412.874 | 349.723 | 277.076 | 203.103 | 138.601 | 125.581 | 160.648 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| 82.5 | 463.835 | 451.320 | 424.434 | 379.817 | 319.377 | 249.937 | 176.695 | 109.354 | 94.182 | 131.573 |
| 85.0 | 429.047 | 416.487 | 390.304 | 348.615 | 291.474 | 223.259 | 151.800 | 85.289 | 64.548 | 105.570 |
| 87.5 | 395.080 | 383.439 | 359.400 | 319.774 | 264.867 | 199.779 | 130.330 | 64.818 | 36.815 | 83.514 |
| 90.0 | 363.418 | 353.552 | 330.460 | 293.393 | 241.036 | 178.749 | 111.679 | 48.942 | 12.659 | 64.169 |
| 92.5 | 334.767 | 325.162 | 303.250 | 267.903 | 218.258 | 159.486 | 95.803 | 36.905 | 8.776 | 49.294 |
| 95.0 | 307.205 | 298.339 | 277.959 | 244.342 | 198.454 | 142.061 | 82.568 | 28.634 | 7.397 | 38.247 |
| 97.5 | 283.419 | 273.850 | 254.983 | 223.223 | 179.335 | 126.600 | 71.242 | 22.759 | 6.019 | 30.030 |
| 100.0 | 261.011 | 252.028 | 233.305 | 203.284 | 162.018 | 113.057 | 61.800 | 18.822 | 4.388 | 23.435 |
| 102.5 | 240.495 | 231.404 | 213.636 | 185.417 | 146.656 | 100.615 | 54.150 | 15.840 | 2.865 | 18.443 |
| 105.0 | 221.268 | 212.663 | 195.535 | 169.001 | 132.636 | 90.271 | 47.555 | 13.515 | 1.496 | 14.470 |
| 107.5 | 203.959 | 195.481 | 179.182 | 153.747 | 119.824 | 80.676 | 41.842 | 11.686 | 0.838 | 11.677 |
| 110.0 | 188.111 | 179.786 | 163.892 | 139.979 | 108.291 | 72.251 | 36.500 | 8.487 | 0.387 | 9.497 |
| 112.5 | 172.785 | 165.361 | 150.026 | 125.068 | 96.299 | 62.773 | 31.166 | 4.883 | 0.252 | 7.073 |
| 115.0 | 159.153 | 151.323 | 137.168 | 113.346 | 87.406 | 55.267 | 27.075 | 3.343 | 0.225 | 4.208 |
| 117.5 | 146.187 | 138.898 | 125.554 | 102.723 | 75.522 | 46.978 | 23.840 | 2.649 | 0.153 | 2.541 |
| 120.0 | 134.681 | 127.473 | 113.012 | 93.199 | 65.377 | 40.941 | 19.849 | 2.424 | 0.090 | 1.847 |
| 122.5 | 123.527 | 116.409 | 101.083 | 81.045 | 56.709 | 34.427 | 17.254 | 2.171 | 0.180 | 1.324 |
| 125.0 | 113.274 | 106.309 | 91.758 | 70.368 | 48.582 | 30.526 | 14.758 | 1.541 | 0.414 | 0.712 |
| 127.5 | 103.354 | 96.794 | 81.045 | 60.034 | 40.473 | 26.616 | 11.163 | 1.487 | 0.198 | 0.414 |
| 130.0 | 93.929 | 87.415 | 69.927 | 51.853 | 35.562 | 22.408 | 7.460 | 1.324 | 0.315 | 0.451 |
| 132.5 | 85.289 | 76.828 | 61.025 | 43.879 | 31.796 | 19.723 | 5.469 | 1.108 | 0.369 | 0.414 |
| 135.0 | 76.189 | 67.125 | 51.177 | 38.428 | 26.949 | 17.029 | 4.928 | 1.081 | 0.568 | 0.703 |
| 137.5 | 68.305 | 58.889 | 43.536 | 34.166 | 23.336 | 14.975 | 4.703 | 0.874 | 0.739 | 0.748 |
| 140.0 | 59.880 | 49.519 | 34.391 | 29.913 | 21.237 | 11.533 | 4.298 | 0.955 | 0.802 | 0.856 |
| 142.5 | 53.799 | 42.014 | 29.400 | 25.651 | 19.128 | 8.217 | 4.091 | 1.072 | 1.054 | 1.045 |
| 145.0 | 47.780 | 32.859 | 25.588 | 21.390 | 16.218 | 7.199 | 3.703 | 1.361 | 1.090 | 1.045 |
| 147.5 | 40.914 | 26.201 | 21.471 | 19.326 | 11.731 | 6.541 | 3.108 | 1.532 | 1.243 | 1.243 |
| 150.0 | 32.887 | 21.101 | 18.443 | 16.434 | 8.550 | 5.415 | 2.757 | 1.541 | 1.406 | 1.595 |
| 152.5 | 24.138 | 18.092 | 15.542 | 11.136 | 7.559 | 4.847 | 2.298 | 1.550 | 1.730 | 1.667 |
| 155.0 | 16.948 | 13.920 | 10.605 | 8.397 | 6.298 | 4.226 | 2.018 | 1.730 | 1.658 | 1.703 |
| 157.5 | 10.091 | 8.109 | 7.496 | 7.100 | 5.442 | 3.487 | 1.865 | 1.883 | 1.874 | 1.892 |
| 160.0 | 5.784 | 5.857 | 6.721 | 6.163 | 4.460 | 2.811 | 2.009 | 1.955 | 2.072 | 2.090 |
| 162.5 | 5.001 | 4.820 | 5.766 | 4.883 | 3.550 | 2.018 | 1.982 | 2.027 | 2.027 | 2.009 |
| 165.0 | 4.027 | 3.937 | 4.559 | 3.847 | 2.622 | 2.090 | 2.126 | 2.108 | 2.316 | 2.225 |
| 167.5 | 3.181 | 3.027 | 3.415 | 2.577 | 2.180 | 2.108 | 2.099 | 2.180 | 2.316 | 2.469 |
| 170.0 | 2.370 | 2.361 | 2.334 | 2.280 | 2.207 | 2.334 | 2.325 | 2.334 | 2.523 | 2.640 |
| 172.5 | 2.334 | 2.271 | 2.280 | 2.406 | 2.550 | 2.361 | 2.334 | 2.424 | 2.793 | 2.820 |
| 175.0 | 2.721 | 2.622 | 2.604 | 2.658 | 2.649 | 2.676 | 2.685 | 2.685 | 2.901 | 2.901 |
| 177.5 | 2.928 | 2.730 | 2.865 | 2.775 | 2.883 | 2.937 | 2.829 | 2.937 | 2.964 | 2.847 |
| 180.0 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 |

Vert. 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 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 |
| 2.5 | 1355.473 | 1356.852 | 1361.069 | 1362.600 | 1359.032 | 1356.095 | 1354.906 | 1353.428 | 1350.428 | 1347.419 |
| 5.0 | 1350.266 | 1352.275 | 1357.654 | 1359.546 | 1356.780 | 1354.374 | 1353.599 | 1351.338 | 1348.752 | 1344.914 |
| 7.5 | 1341.093 | 1345.004 | 1350.977 | 1354.951 | 1353.104 | 1351.779 | 1351.500 | 1349.716 | 1346.013 | 1341.292 |
| 10.0 | 1328.732 | 1333.994 | 1341.589 | 1347.689 | 1347.689 | 1347.590 | 1348.292 | 1346.572 | 1342.139 | 1336.444 |
| 12.5 | 1311.324 | 1319.569 | 1329.948 | 1337.778 | 1339.832 | 1341.526 | 1343.481 | 1341.850 | 1337.228 | 1330.164 |
| 15.0 | 1290.097 | 1301.359 | 1314.983 | 1325.029 | 1329.543 | 1333.552 | 1336.318 | 1334.805 | 1329.678 | 1321.371 |
| 17.5 | 1265.346 | 1279.393 | 1295.926 | 1309.135 | 1316.586 | 1322.875 | 1327.191 | 1326.299 | 1320.470 | 1309.991 |
| 20.0 | 1237.542 | 1254.039 | 1273.870 | 1290.818 | 1301.945 | 1310.496 | 1316.217 | 1315.622 | 1309.441 | 1297.602 |
| 22.5 | 1204.817 | 1225.955 | 1249.894 | 1269.797 | 1284.403 | 1296.503 | 1303.666 | 1304.134 | 1296.602 | 1282.384 |
| 25.0 | 1169.714 | 1194.312 | 1222.243 | 1247.128 | 1265.581 | 1280.474 | 1289.169 | 1289.917 | 1281.835 | 1265.527 |
| 27.5 | 1132.350 | 1159.740 | 1192.861 | 1222.216 | 1243.776 | 1262.013 | 1273.167 | 1274.050 | 1265.626 | 1247.903 |

**IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 30.0 | 1091.742 | 1123.304 | 1160.119 | 1194.131 | 1220.341 | 1241.632 | 1254.462 | 1256.399 | 1246.957 | 1227.171 |
| 32.5 | 1048.268 | 1084.182 | 1124.908 | 1163.678 | 1194.537 | 1218.909 | 1233.820 | 1236.785 | 1226.099 | 1204.808 |
| 35.0 | 1002.867 | 1042.682 | 1089.156 | 1131.566 | 1166.813 | 1193.699 | 1210.566 | 1213.926 | 1203.520 | 1180.797 |
| 37.5 | 956.042 | 1001.002 | 1052.107 | 1098.382 | 1137.927 | 1167.173 | 1185.220 | 1188.843 | 1178.094 | 1154.181 |
| 40.0 | 908.442 | 957.240 | 1012.364 | 1063.045 | 1105.824 | 1138.089 | 1158.154 | 1161.894 | 1150.514 | 1125.439 |
| 42.5 | 860.572 | 912.470 | 972.107 | 1025.041 | 1072.812 | 1107.347 | 1128.277 | 1132.467 | 1120.123 | 1094.832 |
| 45.0 | 810.305 | 865.978 | 929.598 | 986.703 | 1036.880 | 1074.434 | 1095.544 | 1100.355 | 1088.651 | 1060.910 |
| 47.5 | 761.814 | 820.460 | 886.287 | 947.861 | 1000.515 | 1039.466 | 1060.630 | 1065.667 | 1054.494 | 1025.942 |
| 50.0 | 711.448 | 774.941 | 842.904 | 907.676 | 962.313 | 1002.795 | 1024.347 | 1028.194 | 1018.103 | 989.406 |
| 52.5 | 664.451 | 729.053 | 798.764 | 866.248 | 922.056 | 962.412 | 984.595 | 989.740 | 978.882 | 950.050 |
| 55.0 | 617.005 | 683.904 | 755.110 | 823.739 | 880.196 | 921.309 | 942.815 | 947.888 | 936.959 | 909.370 |
| 57.5 | 571.108 | 638.404 | 711.763 | 780.771 | 838.633 | 877.493 | 899.036 | 903.658 | 893.224 | 866.492 |
| 60.0 | 525.400 | 593.849 | 667.749 | 738.297 | 795.069 | 832.794 | 852.779 | 857.482 | 846.967 | 822.622 |
| 62.5 | 480.449 | 550.142 | 625.087 | 694.581 | 748.992 | 787.096 | 806.557 | 811.017 | 801.403 | 777.842 |
| 65.0 | 438.481 | 508.002 | 583.289 | 650.900 | 706.078 | 741.190 | 759.255 | 763.192 | 754.128 | 732.927 |
| 67.5 | 397.278 | 467.754 | 541.447 | 608.508 | 661.640 | 695.518 | 712.204 | 715.655 | 707.429 | 687.247 |
| 70.0 | 358.463 | 427.362 | 501.100 | 567.396 | 618.284 | 650.297 | 665.082 | 667.956 | 661.848 | 642.107 |
| 72.5 | 320.711 | 389.556 | 462.330 | 526.770 | 575.766 | 606.067 | 619.122 | 621.330 | 615.743 | 598.931 |
| 75.0 | 284.383 | 355.282 | 425.903 | 487.964 | 534.203 | 562.080 | 574.991 | 576.820 | 571.495 | 556.151 |
| 77.5 | 250.901 | 325.558 | 390.331 | 450.545 | 494.036 | 520.436 | 530.914 | 534.428 | 528.707 | 514.102 |
| 80.0 | 221.304 | 295.834 | 357.057 | 414.694 | 456.762 | 480.287 | 490.919 | 492.901 | 487.684 | 474.368 |
| 82.5 | 193.237 | 266.110 | 325.639 | 381.447 | 420.659 | 443.860 | 452.563 | 454.672 | 449.545 | 438.859 |
| 85.0 | 167.036 | 236.386 | 296.699 | 349.210 | 385.808 | 408.432 | 417.244 | 419.307 | 414.343 | 403.864 |
| 87.5 | 144.286 | 208.266 | 269.228 | 319.170 | 354.688 | 375.059 | 383.376 | 385.421 | 381.366 | 370.671 |
| 90.0 | 123.987 | 185.417 | 243.784 | 290.996 | 324.693 | 344.840 | 352.967 | 353.724 | 350.237 | 340.064 |
| 92.5 | 106.264 | 165.099 | 220.385 | 265.930 | 298.150 | 316.269 | 323.738 | 324.973 | 322.198 | 312.755 |
| 95.0 | 90.460 | 146.223 | 198.689 | 242.360 | 272.652 | 289.446 | 297.375 | 298.636 | 296.015 | 287.041 |
| 97.5 | 76.972 | 129.456 | 178.957 | 220.159 | 248.793 | 265.525 | 273.309 | 274.111 | 272.021 | 263.443 |
| 100.0 | 65.458 | 114.409 | 160.856 | 199.671 | 227.187 | 242.765 | 250.739 | 252.577 | 249.514 | 241.198 |
| 102.5 | 55.907 | 101.381 | 144.764 | 181.299 | 207.626 | 223.178 | 230.269 | 232.539 | 229.422 | 220.925 |
| 105.0 | 47.789 | 89.388 | 130.185 | 164.721 | 189.201 | 204.185 | 211.807 | 213.861 | 210.825 | 202.734 |
| 107.5 | 41.581 | 79.270 | 117.040 | 149.034 | 172.217 | 187.003 | 194.643 | 196.778 | 193.850 | 185.516 |
| 110.0 | 36.121 | 70.332 | 105.138 | 134.627 | 157.234 | 171.397 | 178.885 | 181.047 | 178.065 | 169.775 |
| 112.5 | 31.391 | 62.439 | 93.740 | 122.013 | 142.944 | 156.747 | 164.207 | 166.144 | 163.333 | 155.423 |
| 115.0 | 26.994 | 55.339 | 83.802 | 110.336 | 130.023 | 143.646 | 150.494 | 152.530 | 149.782 | 142.322 |
| 117.5 | 22.777 | 48.330 | 74.873 | 99.597 | 118.148 | 130.996 | 137.916 | 139.493 | 137.384 | 129.924 |
| 120.0 | 19.074 | 41.050 | 64.160 | 89.352 | 107.534 | 119.355 | 125.906 | 127.978 | 125.590 | 118.590 |
| 122.5 | 15.903 | 34.905 | 56.763 | 78.063 | 97.308 | 108.435 | 115.076 | 117.256 | 114.562 | 107.895 |
| 125.0 | 13.434 | 29.724 | 48.843 | 69.332 | 87.947 | 98.641 | 104.795 | 106.597 | 104.372 | 97.831 |
| 127.5 | 10.740 | 25.318 | 41.788 | 58.853 | 79.072 | 89.289 | 95.209 | 96.785 | 94.920 | 88.586 |
| 130.0 | 7.830 | 21.561 | 35.941 | 51.015 | 69.701 | 80.189 | 86.235 | 87.956 | 85.811 | 79.928 |
| 132.5 | 4.974 | 18.362 | 30.805 | 44.221 | 60.070 | 72.476 | 77.468 | 79.189 | 77.126 | 71.891 |
| 135.0 | 4.027 | 16.020 | 26.417 | 37.905 | 50.591 | 64.890 | 69.638 | 71.215 | 69.359 | 64.331 |
| 137.5 | 3.424 | 13.452 | 22.525 | 32.328 | 42.825 | 57.466 | 62.142 | 63.530 | 62.106 | 57.412 |
| 140.0 | 2.982 | 10.208 | 19.552 | 27.643 | 36.977 | 49.150 | 55.213 | 56.538 | 55.105 | 51.006 |
| 142.5 | 2.469 | 6.649 | 16.912 | 23.309 | 31.094 | 41.131 | 48.825 | 49.789 | 48.582 | 45.086 |
| 145.0 | 1.982 | 5.451 | 14.092 | 19.777 | 26.075 | 33.806 | 42.473 | 43.924 | 42.527 | 39.121 |
| 147.5 | 1.658 | 4.703 | 10.127 | 16.930 | 21.705 | 27.814 | 36.815 | 37.878 | 36.815 | 33.697 |
| 150.0 | 1.550 | 4.000 | 6.785 | 13.596 | 17.858 | 22.985 | 31.418 | 32.310 | 31.364 | 28.661 |
| 152.5 | 1.613 | 3.172 | 5.793 | 9.298 | 13.821 | 18.516 | 25.706 | 27.246 | 26.282 | 24.093 |
| 155.0 | 1.694 | 2.361 | 4.613 | 6.460 | 9.100 | 13.623 | 19.038 | 22.093 | 20.795 | 18.651 |
| 157.5 | 1.901 | 2.054 | 3.820 | 5.532 | 5.947 | 7.857 | 12.109 | 16.047 | 14.560 | 11.902 |
| 160.0 | 2.108 | 2.000 | 2.820 | 4.298 | 5.028 | 5.010 | 6.334 | 9.307 | 8.496 | 7.145 |
| 162.5 | 2.108 | 2.135 | 2.216 | 3.027 | 3.910 | 3.955 | 4.289 | 5.857 | 5.469 | 5.046 |
| 165.0 | 2.280 | 2.198 | 2.234 | 2.271 | 2.811 | 3.190 | 3.451 | 4.253 | 4.064 | 3.541 |
| 167.5 | 2.397 | 2.541 | 2.478 | 2.406 | 2.541 | 2.622 | 2.829 | 3.009 | 2.865 | 2.721 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 170.0 | 2.604 | 2.730 | 2.207 | 2.559 | 2.667 | 2.541 | 2.757 | 2.730 | 2.604 | 2.694 |
| 172.5 | 2.703 | 2.694 | 2.703 | 2.694 | 2.775 | 2.676 | 2.793 | 2.649 | 2.568 | 2.730 |
| 175.0 | 2.748 | 2.793 | 2.901 | 2.901 | 2.865 | 2.838 | 2.865 | 2.847 | 3.000 | 2.775 |
| 177.5 | 2.865 | 2.775 | 2.793 | 3.099 | 2.721 | 2.748 | 2.811 | 2.784 | 2.856 | 2.955 |
| 180.0 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 |

Vert. Horizontal Angles
Angles

| | 300 | 310 | 320 | 330 | 340 | 350 | 360 |
|--------------|------------|------------|------------|------------|------------|------------|------------|
| 0.0 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 | 1353.203 |
| 2.5 | 1344.040 | 1339.039 | 1337.904 | 1343.670 | 1348.833 | 1354.861 | 1354.672 |
| 5.0 | 1340.634 | 1335.183 | 1332.759 | 1337.102 | 1341.373 | 1347.220 | 1347.157 |
| 7.5 | 1335.751 | 1328.876 | 1325.353 | 1327.849 | 1330.948 | 1336.210 | 1334.850 |
| 10.0 | 1329.597 | 1320.316 | 1315.055 | 1315.487 | 1316.803 | 1320.235 | 1317.731 |
| 12.5 | 1321.127 | 1309.396 | 1302.017 | 1299.431 | 1298.395 | 1300.846 | 1296.944 |
| 15.0 | 1310.441 | 1295.503 | 1284.655 | 1279.564 | 1276.420 | 1277.005 | 1270.942 |
| 17.5 | 1297.242 | 1279.916 | 1264.680 | 1256.066 | 1250.678 | 1249.399 | 1241.767 |
| 20.0 | 1281.799 | 1260.265 | 1242.623 | 1229.189 | 1221.441 | 1217.693 | 1207.980 |
| 22.5 | 1264.454 | 1239.911 | 1218.071 | 1200.988 | 1188.653 | 1182.283 | 1170.994 |
| 25.0 | 1245.651 | 1216.665 | 1190.536 | 1168.615 | 1153.190 | 1142.928 | 1130.142 |
| 27.5 | 1223.414 | 1191.086 | 1159.632 | 1134.467 | 1114.267 | 1102.392 | 1086.074 |
| 30.0 | 1199.555 | 1162.858 | 1127.466 | 1096.481 | 1073.208 | 1058.594 | 1040.826 |
| 32.5 | 1173.859 | 1133.125 | 1093.273 | 1056.873 | 1029.861 | 1011.075 | 993.758 |
| 35.0 | 1146.378 | 1102.356 | 1057.855 | 1016.103 | 984.640 | 962.827 | 943.149 |
| 37.5 | 1117.123 | 1069.658 | 1020.031 | 974.098 | 938.211 | 913.929 | 891.693 |
| 40.0 | 1086.372 | 1035.555 | 980.288 | 931.138 | 891.098 | 863.852 | 840.642 |
| 42.5 | 1053.377 | 999.542 | 940.482 | 887.007 | 842.705 | 812.864 | 788.015 |
| 45.0 | 1018.977 | 962.755 | 899.784 | 842.102 | 793.565 | 762.012 | 734.847 |
| 47.5 | 983.757 | 924.471 | 857.896 | 796.592 | 744.433 | 710.736 | 683.309 |
| 50.0 | 944.473 | 885.467 | 814.711 | 752.335 | 694.734 | 660.217 | 630.673 |
| 52.5 | 905.136 | 844.525 | 773.256 | 705.961 | 646.711 | 610.049 | 578.838 |
| 55.0 | 864.437 | 803.151 | 731.486 | 661.280 | 600.498 | 559.332 | 528.202 |
| 57.5 | 823.118 | 761.768 | 689.842 | 618.401 | 554.908 | 510.606 | 479.287 |
| 60.0 | 780.104 | 720.169 | 648.630 | 575.460 | 509.488 | 463.213 | 432.300 |
| 62.5 | 736.568 | 677.948 | 606.265 | 532.698 | 465.871 | 417.776 | 385.277 |
| 65.0 | 693.725 | 635.647 | 565.630 | 491.198 | 425.101 | 373.014 | 340.128 |
| 67.5 | 648.918 | 594.173 | 525.734 | 452.509 | 385.178 | 330.568 | 294.402 |
| 70.0 | 607.824 | 553.854 | 486.991 | 414.631 | 344.696 | 289.753 | 252.776 |
| 72.5 | 565.170 | 514.516 | 448.950 | 377.321 | 306.529 | 250.640 | 211.942 |
| 75.0 | 524.355 | 475.674 | 412.964 | 342.074 | 272.003 | 214.609 | 174.208 |
| 77.5 | 484.747 | 439.814 | 377.870 | 308.773 | 238.711 | 179.587 | 137.583 |
| 80.0 | 448.500 | 404.612 | 345.885 | 277.670 | 208.518 | 147.854 | 103.732 |
| 82.5 | 413.613 | 372.176 | 315.810 | 249.721 | 180.200 | 119.193 | 72.747 |
| 85.0 | 380.312 | 341.236 | 286.527 | 223.007 | 155.062 | 93.461 | 44.131 |
| 87.5 | 349.011 | 312.160 | 260.011 | 198.689 | 133.042 | 71.936 | 17.236 |
| 90.0 | 320.026 | 284.743 | 235.693 | 176.749 | 113.832 | 54.727 | 0.351 |
| 92.5 | 292.546 | 259.146 | 212.969 | 156.531 | 96.587 | 41.014 | 0.324 |
| 95.0 | 267.957 | 236.549 | 191.850 | 139.051 | 81.748 | 31.229 | 0.180 |
| 97.5 | 244.748 | 214.690 | 173.127 | 122.833 | 69.954 | 24.093 | 0.117 |
| 100.0 | 223.610 | 194.625 | 156.098 | 108.643 | 59.835 | 18.732 | 0.027 |
| 102.5 | 203.941 | 177.047 | 140.637 | 96.254 | 51.222 | 15.002 | 0.153 |
| 105.0 | 186.444 | 160.955 | 125.888 | 85.244 | 44.131 | 11.830 | 0.000 |
| 107.5 | 170.298 | 145.800 | 113.085 | 75.477 | 38.148 | 9.695 | 0.027 |
| 110.0 | 154.873 | 132.105 | 101.759 | 66.944 | 33.337 | 7.487 | 0.000 |
| 112.5 | 141.178 | 119.662 | 91.262 | 59.196 | 28.832 | 5.199 | 0.009 |
| 115.0 | 128.302 | 107.940 | 81.802 | 53.006 | 25.588 | 2.910 | 0.018 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | |
|--------------|---------|--------|--------|--------|--------|-------|-------|
| 117.5 | 116.959 | 97.759 | 73.260 | 47.041 | 22.318 | 1.883 | 0.000 |
| 120.0 | 105.967 | 87.983 | 65.737 | 41.644 | 19.335 | 1.415 | 0.090 |
| 122.5 | 95.821 | 79.396 | 59.043 | 37.058 | 16.894 | 0.973 | 0.225 |
| 125.0 | 86.856 | 71.278 | 52.582 | 32.859 | 14.434 | 0.712 | 0.405 |
| 127.5 | 78.297 | 64.106 | 47.230 | 28.949 | 11.911 | 0.559 | 0.451 |
| 130.0 | 70.431 | 57.295 | 41.671 | 25.399 | 8.623 | 0.451 | 0.451 |
| 132.5 | 62.998 | 51.240 | 37.130 | 22.390 | 6.037 | 0.496 | 0.667 |
| 135.0 | 56.385 | 45.735 | 32.652 | 19.489 | 4.064 | 0.685 | 0.892 |
| 137.5 | 50.186 | 40.356 | 28.832 | 16.416 | 3.235 | 0.694 | 0.883 |
| 140.0 | 44.302 | 35.409 | 25.192 | 12.875 | 2.631 | 0.847 | 0.910 |
| 142.5 | 38.914 | 30.805 | 21.651 | 8.902 | 2.370 | 1.117 | 1.243 |
| 145.0 | 33.562 | 26.589 | 17.939 | 5.983 | 1.784 | 1.108 | 1.370 |
| 147.5 | 29.003 | 22.669 | 13.605 | 4.649 | 1.622 | 1.333 | 1.550 |
| 150.0 | 24.642 | 18.389 | 8.992 | 3.910 | 1.586 | 1.586 | 1.613 |
| 152.5 | 19.903 | 13.010 | 6.037 | 3.144 | 1.748 | 1.712 | 1.667 |
| 155.0 | 14.128 | 8.235 | 4.586 | 2.577 | 1.820 | 1.793 | 1.721 |
| 157.5 | 8.650 | 5.712 | 3.757 | 2.289 | 1.946 | 2.099 | 1.901 |
| 160.0 | 5.649 | 4.163 | 2.757 | 2.171 | 2.126 | 2.009 | 2.027 |
| 162.5 | 4.298 | 3.081 | 2.298 | 2.243 | 2.397 | 2.090 | 2.153 |
| 165.0 | 2.955 | 2.415 | 2.198 | 2.289 | 2.406 | 2.243 | 2.253 |
| 167.5 | 2.496 | 2.460 | 2.415 | 2.622 | 2.388 | 2.478 | 2.135 |
| 170.0 | 2.640 | 2.829 | 2.703 | 2.829 | 2.595 | 2.739 | 2.487 |
| 172.5 | 2.910 | 2.766 | 2.757 | 2.676 | 2.820 | 2.721 | 2.316 |
| 175.0 | 2.883 | 2.847 | 2.757 | 2.739 | 3.000 | 2.865 | 2.604 |
| 177.5 | 3.009 | 2.874 | 2.883 | 3.045 | 3.018 | 3.027 | 3.063 |
| 180.0 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 | 2.892 |

IES INDOOR REPORT
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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 495.51 | N.A. | 9.90 |
| 0-30 | 1054.56 | N.A. | 21.00 |
| 0-40 | 1733.89 | N.A. | 34.60 |
| 0-60 | 3131.9 | N.A. | 62.50 |
| 0-80 | 4157.2 | N.A. | 83.00 |
| 0-90 | 4471.15 | N.A. | 89.20 |
| 10-90 | 4343.12 | N.A. | 86.70 |
| 20-40 | 1238.37 | N.A. | 24.70 |
| 20-50 | 1956.73 | N.A. | 39.00 |
| 40-70 | 1977.33 | N.A. | 39.50 |
| 60-80 | 1025.3 | N.A. | 20.50 |
| 70-80 | 445.98 | N.A. | 8.90 |
| 80-90 | 313.95 | N.A. | 6.30 |
| 90-110 | 349.39 | N.A. | 7.00 |
| 90-120 | 438.20 | N.A. | 8.70 |
| 90-130 | 491.70 | N.A. | 9.80 |
| 90-150 | 534.47 | N.A. | 10.70 |
| 90-180 | 540.12 | N.A. | 10.80 |
| 110-180 | 190.73 | N.A. | 3.80 |
| 0-180 | 5011.27 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 128.04 |
| 10-20 | 367.48 |
| 20-30 | 559.04 |
| 30-40 | 679.33 |
| 40-50 | 718.36 |
| 50-60 | 679.65 |
| 60-70 | 579.31 |
| 70-80 | 445.98 |
| 80-90 | 313.95 |
| 90-100 | 210.47 |
| 100-110 | 138.92 |
| 110-120 | 88.81 |
| 120-130 | 53.50 |
| 130-140 | 29.12 |
| 140-150 | 13.65 |
| 150-160 | 4.45 |
| 160-170 | 0.95 |
| 170-180 | 0.25 |

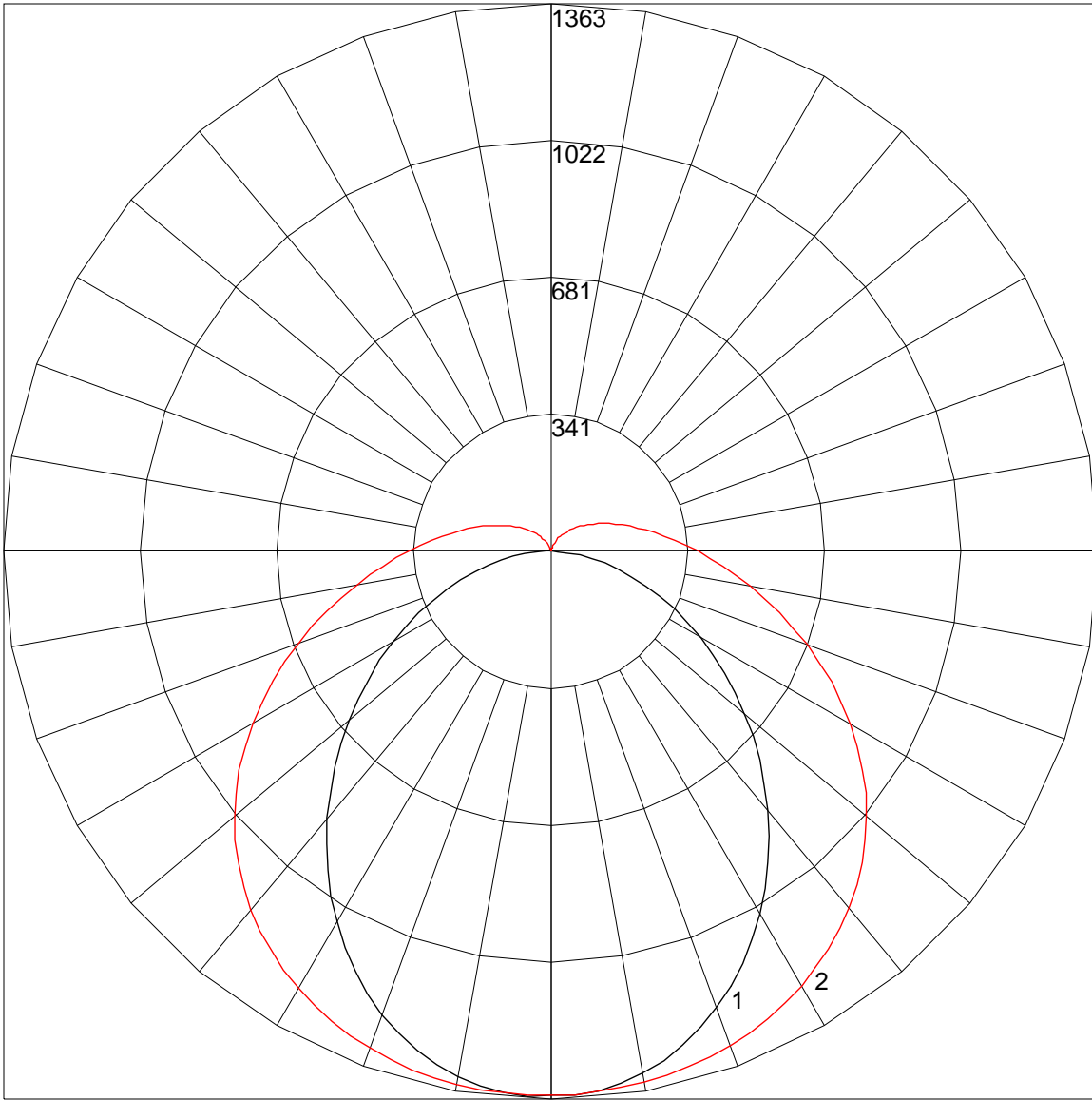
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PHOTOMETRIC FILENAME : NLSR48HRA30.IES

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 | 116 | 116 | 116 | 116 | 113 | 113 | 113 | 113 | 105 | 105 | 105 | 98 | 98 | 98 | 92 | 92 | 92 | 89 |
| 1 | 104 | 98 | 93 | 89 | 100 | 95 | 90 | 86 | 89 | 85 | 81 | 83 | 80 | 77 | 77 | 75 | 73 | 70 |
| 2 | 94 | 85 | 77 | 71 | 90 | 82 | 75 | 69 | 76 | 71 | 66 | 71 | 67 | 63 | 67 | 63 | 60 | 57 |
| 3 | 85 | 74 | 65 | 58 | 82 | 71 | 63 | 57 | 67 | 60 | 54 | 62 | 57 | 52 | 58 | 54 | 50 | 47 |
| 4 | 78 | 65 | 56 | 49 | 74 | 63 | 54 | 48 | 59 | 52 | 46 | 55 | 49 | 44 | 52 | 47 | 42 | 40 |
| 5 | 71 | 58 | 48 | 41 | 68 | 56 | 47 | 41 | 53 | 45 | 39 | 49 | 43 | 38 | 47 | 41 | 36 | 34 |
| 6 | 66 | 52 | 43 | 36 | 63 | 50 | 42 | 35 | 47 | 40 | 34 | 45 | 38 | 33 | 42 | 36 | 32 | 30 |
| 7 | 61 | 47 | 38 | 32 | 58 | 46 | 37 | 31 | 43 | 36 | 30 | 41 | 34 | 29 | 38 | 33 | 28 | 26 |
| 8 | 57 | 43 | 34 | 28 | 54 | 42 | 33 | 28 | 39 | 32 | 27 | 37 | 31 | 26 | 35 | 30 | 25 | 23 |
| 9 | 53 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 36 | 29 | 24 | 34 | 28 | 23 | 33 | 27 | 23 | 21 |
| 10 | 49 | 36 | 28 | 23 | 48 | 35 | 28 | 22 | 33 | 27 | 22 | 32 | 26 | 21 | 30 | 25 | 21 | 19 |

POLAR GRAPH



Maximum Candela = 1362.6 Located At Horizontal Angle = 230, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (0 - 180)
2 - Vertical Plane Through Horizontal Angles (90 - 270)