



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] 1  
 [TESTLAB] EVERFINE  
 [TESTDATE] 2017-06-23  
 [ISSUEDATE] 2017-06-26 11:07:24  
 [NEARFIELD]  
 [LAMPPOSITION] 0,0  
 [OTHER] EVERFINE GO-2000B\_V1 SYSTEM  
 [MANUFAC] LAMAR LIGHTING CO., INC.  
 [LUMCAT] HBL3315-50D  
 [LAMPCAT] 3030  
 [LAMP] CW

**CHARACTERISTICS**

|                                 |                |
|---------------------------------|----------------|
| Lumens Per Lamp                 | 21283 (1 lamp) |
| Total Lamp Lumens               | 21283          |
| Luminaire Lumens                | 21283          |
| Total Luminaire Efficiency      | 100 %          |
| Luminaire Efficacy Rating (LER) | 142            |
| Total Luminaire Watts           | 150.2          |
| Ballast Factor                  | 1.00           |
| CIE Type                        | Direct         |
| Spacing Criterion (0-180)       | 1.22           |
| Spacing Criterion (90-270)      | 1.22           |
| Spacing Criterion (Diagonal)    | 1.36           |
| Basic Luminous Shape            | Rectangular    |
| Luminous Length (0-180)         | 0.86 m         |
| Luminous Width (90-270)         | 0.09 m         |
| Luminous Height                 | 0.00 m         |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 87058         | 83144          | 89802          |
| 55               | 79723         | 75205          | 84423          |
| 65               | 71277         | 66736          | 77762          |
| 75               | 58705         | 58806          | 77264          |
| 85               | 35054         | 69336          | 119631         |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**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> |
|----|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| 0  | 7492.455   | 7492.455    | 7492.455    | 7492.455    | 7492.455    | 7492.455     | 7492.455     | 7492.455     | 7492.455     | 7492.455     |
| 1  | 7454.510   | 7450.410    | 7467.520    | 7496.040    | 7507.950    | 7517.060     | 7520.810     | 7470.420     | 7456.430     | 7465.350     |
| 2  | 7448.590   | 7438.470    | 7450.690    | 7482.130    | 7497.990    | 7504.190     | 7507.890     | 7459.530     | 7453.420     | 7468.350     |
| 3  | 7439.690   | 7422.560    | 7432.840    | 7466.220    | 7485.070    | 7489.320     | 7492.950     | 7445.660     | 7447.420     | 7467.390     |
| 4  | 7426.830   | 7403.680    | 7411.040    | 7447.330    | 7470.130    | 7471.480     | 7473.060     | 7428.810     | 7437.460     | 7464.430     |
| 5  | 7412.980   | 7381.830    | 7385.350    | 7424.470    | 7451.230    | 7450.720     | 7450.210     | 7408.050     | 7424.510     | 7458.510     |
| 6  | 7393.210   | 7357.970    | 7356.610    | 7398.650    | 7428.380    | 7426.930     | 7425.350     | 7385.240     | 7407.600     | 7448.620     |
| 7  | 7372.380   | 7330.140    | 7324.880    | 7370.830    | 7403.540    | 7400.160     | 7396.530     | 7358.490     | 7387.730     | 7435.750     |
| 8  | 7347.620   | 7298.450    | 7291.160    | 7340.110    | 7376.770    | 7369.430     | 7364.830     | 7329.720     | 7365.910     | 7419.900     |
| 9  | 7319.860   | 7263.690    | 7252.520    | 7304.380    | 7344.990    | 7336.700     | 7330.070     | 7297.010     | 7340.090     | 7402.050     |
| 10 | 7289.130   | 7226.950    | 7213.810    | 7268.630    | 7311.230    | 7300.010     | 7293.310     | 7261.310     | 7312.250     | 7380.250     |
| 11 | 7255.420   | 7187.220    | 7171.180    | 7229.900    | 7276.460    | 7263.290     | 7252.610     | 7223.610     | 7279.470     | 7357.430     |
| 12 | 7218.730   | 7143.540    | 7125.560    | 7188.190    | 7238.710    | 7222.630     | 7210.900     | 7180.980     | 7244.730     | 7327.720     |
| 13 | 7178.080   | 7097.860    | 7077.940    | 7143.510    | 7197.010    | 7178.990     | 7167.170     | 7136.330     | 7208.920     | 7295.980     |
| 14 | 7133.470   | 7049.190    | 7027.360    | 7095.850    | 7154.270    | 7132.370     | 7117.570     | 7089.700     | 7166.250     | 7263.230     |
| 15 | 7086.840   | 6996.570    | 6972.820    | 7046.200    | 7105.630    | 7081.780     | 7069.810     | 7039.120     | 7124.480     | 7225.560     |
| 16 | 7038.360   | 6941.960    | 6916.420    | 6993.560    | 7055.980    | 7030.320     | 7012.270     | 6986.670     | 7074.880     | 7185.000     |
| 17 | 6985.810   | 6884.360    | 6855.930    | 6936.980    | 7004.330    | 6974.780     | 6956.660     | 6932.110     | 7027.180     | 7144.310     |
| 18 | 6930.270   | 6822.820    | 6794.410    | 6878.410    | 6949.710    | 6916.260     | 6898.060     | 6870.640     | 6974.530     | 7096.740     |
| 19 | 6870.770   | 6760.450    | 6728.960    | 6819.010    | 6892.310    | 6858.690     | 6835.680     | 6812.060     | 6918.090     | 7049.100     |
| 20 | 6811.230   | 6695.910    | 6661.500    | 6756.460    | 6834.660    | 6797.190     | 6771.120     | 6747.610     | 6859.490     | 6997.530     |
| 21 | 6746.780   | 6627.420    | 6591.070    | 6690.940    | 6769.200    | 6730.740     | 6701.680     | 6679.160     | 6795.970     | 6941.990     |
| 22 | 6680.300   | 6556.930    | 6519.620    | 6623.440    | 6707.610    | 6663.260     | 6635.150     | 6610.680     | 6732.430     | 6885.430     |
| 23 | 6608.900   | 6484.350    | 6442.280    | 6553.960    | 6640.110    | 6593.810     | 6565.710     | 6537.280     | 6666.870     | 6824.920     |
| 24 | 6536.460   | 6411.730    | 6364.860    | 6483.620    | 6571.630    | 6522.370     | 6499.100     | 6463.840     | 6595.420     | 6762.410     |
| 25 | 6462.050   | 6333.440    | 6286.470    | 6413.220    | 6503.090    | 6447.960     | 6421.760     | 6385.480     | 6524.920     | 6695.950     |
| 26 | 6384.670   | 6252.760    | 6204.140    | 6335.800    | 6429.370    | 6371.550     | 6338.240     | 6306.090     | 6451.430     | 6627.480     |
| 27 | 6305.510   | 6167.700    | 6121.010    | 6256.540    | 6355.560    | 6293.380     | 6256.400     | 6224.940     | 6377.840     | 6557.230     |
| 28 | 6221.220   | 6080.900    | 6034.710    | 6174.560    | 6274.820    | 6212.030     | 6172.390     | 6138.650     | 6296.420     | 6482.830     |
| 29 | 6134.900   | 5991.750    | 5945.420    | 6088.030    | 6193.710    | 6124.750     | 6085.810     | 6051.320     | 6213.060     | 6405.450     |
| 30 | 6048.550   | 5901.210    | 5855.120    | 6003.700    | 6109.650    | 6040.360     | 5997.670     | 5963.010     | 6126.940     | 6327.060     |
| 31 | 5958.290   | 5807.010    | 5762.850    | 5913.280    | 6026.280    | 5951.090     | 5909.440     | 5870.740     | 6040.020     | 6245.700     |
| 32 | 5866.010   | 5713.210    | 5668.590    | 5824.110    | 5938.630    | 5863.730     | 5815.540     | 5776.480     | 5949.130     | 6161.370     |
| 33 | 5770.770   | 5614.910    | 5571.360    | 5731.090    | 5848.940    | 5771.480     | 5720.030     | 5681.210     | 5855.140     | 6075.040     |
| 34 | 5675.500   | 5516.400    | 5474.100    | 5637.200    | 5758.260    | 5678.190     | 5622.800     | 5582.980     | 5761.250     | 5986.730     |
| 35 | 5576.290   | 5416.680    | 5372.910    | 5542.520    | 5665.110    | 5583.920     | 5524.790     | 5483.750     | 5665.600     | 5896.440     |
| 36 | 5476.070   | 5313.640    | 5270.700    | 5442.320    | 5570.240    | 5482.740     | 5422.970     | 5383.520     | 5566.200     | 5804.150     |
| 37 | 5373.860   | 5209.310    | 5168.480    | 5344.850    | 5473.130    | 5385.450     | 5323.140     | 5278.350     | 5464.150     | 5706.930     |
| 38 | 5269.960   | 5104.750    | 5064.570    | 5243.960    | 5375.970    | 5284.530     | 5220.900     | 5174.420     | 5362.800     | 5610.920     |
| 39 | 5162.820   | 4996.970    | 4958.410    | 5141.140    | 5274.240    | 5183.300     | 5112.760     | 5068.250     | 5257.390     | 5511.700     |
| 40 | 5055.630   | 4888.650    | 4850.260    | 5037.760    | 5173.480    | 5080.100     | 5009.130     | 4961.080     | 5151.440     | 5412.460     |
| 41 | 4948.450   | 4778.610    | 4743.060    | 4931.920    | 5073.040    | 4973.940     | 4900.560     | 4851.930     | 5044.280     | 5309.280     |
| 42 | 4838.320   | 4669.000    | 4631.950    | 4828.850    | 4966.460    | 4870.700     | 4789.490     | 4741.770     | 4935.620     | 5206.070     |
| 43 | 4726.200   | 4557.670    | 4521.780    | 4719.920    | 4860.960    | 4759.610     | 4681.590     | 4629.640     | 4824.540     | 5098.920     |
| 44 | 4616.010   | 4445.150    | 4412.600    | 4612.750    | 4755.170    | 4653.380     | 4570.860     | 4517.500     | 4715.290     | 4993.700     |
| 45 | 4501.920   | 4330.290    | 4299.500    | 4500.380    | 4643.780    | 4543.250     | 4454.750     | 4405.350     | 4598.530     | 4886.530     |
| 46 | 4387.790   | 4216.920    | 4184.400    | 4390.780    | 4535.240    | 4429.150     | 4343.630     | 4288.280     | 4485.810     | 4774.420     |
| 47 | 4275.620   | 4102.990    | 4074.180    | 4280.160    | 4424.640    | 4318.960     | 4231.080     | 4173.140     | 4373.030     | 4664.250     |
| 48 | 4158.570   | 3985.980    | 3962.060    | 4163.950    | 4311.620    | 4204.860     | 4114.410     | 4058.020     | 4255.180     | 4553.100     |
| 49 | 4042.440   | 3870.350    | 3845.980    | 4053.990    | 4200.300    | 4093.680     | 4000.810     | 3942.890     | 4140.080     | 4439.970     |
| 50 | 3927.620   | 3754.290    | 3729.200    | 3939.560    | 4088.940    | 3978.900     | 3884.830     | 3824.150     | 4023.670     | 4327.140     |
| 51 | 3812.500   | 3637.900    | 3616.010    | 3826.510    | 3973.900    | 3864.760     | 3766.220     | 3708.010     | 3905.260     | 4213.020     |
| 52 | 3695.410   | 3520.150    | 3499.930    | 3713.270    | 3862.770    | 3749.640     | 3650.600     | 3588.940     | 3787.390     | 4096.920     |
| 53 | 3579.280   | 3405.360    | 3385.780    | 3601.640    | 3758.050    | 3638.450     | 3535.040     | 3471.810     | 3671.400     | 3982.770     |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**CANDELA TABULATION - (Cont.)**

|     |          |          |          |          |          |          |          |          |          |          |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 54  | 3461.200 | 3288.340 | 3270.660 | 3493.750 | 3649.320 | 3533.200 | 3415.880 | 3354.700 | 3551.790 | 3866.670 |
| 55  | 3344.080 | 3171.550 | 3154.560 | 3383.440 | 3541.240 | 3418.160 | 3298.670 | 3235.630 | 3431.580 | 3749.570 |
| 56  | 3226.970 | 3056.780 | 3042.370 | 3277.270 | 3433.110 | 3314.840 | 3183.690 | 3118.500 | 3315.490 | 3633.450 |
| 57  | 3111.830 | 2941.580 | 2916.480 | 3169.060 | 3292.590 | 3196.860 | 3068.830 | 2999.420 | 3196.200 | 3516.350 |
| 58  | 2995.720 | 2825.630 | 2832.890 | 3034.730 | 3168.950 | 3062.030 | 2954.940 | 2889.140 | 3076.620 | 3400.220 |
| 59  | 2885.490 | 2709.700 | 2719.960 | 2915.730 | 3059.430 | 2946.750 | 2842.220 | 2778.930 | 2959.780 | 3282.140 |
| 60  | 2775.330 | 2595.910 | 2612.770 | 2804.560 | 2947.970 | 2842.390 | 2729.560 | 2661.310 | 2840.070 | 3164.030 |
| 61  | 2661.560 | 2482.000 | 2508.390 | 2697.780 | 2842.000 | 2738.110 | 2621.480 | 2546.520 | 2720.820 | 3048.220 |
| 62  | 2547.130 | 2368.110 | 2396.090 | 2592.850 | 2741.970 | 2634.320 | 2505.610 | 2430.690 | 2604.860 | 2919.330 |
| 63  | 2429.600 | 2255.310 | 2273.060 | 2491.010 | 2631.940 | 2534.170 | 2379.200 | 2314.640 | 2487.380 | 2828.770 |
| 64  | 2315.970 | 2144.830 | 2166.600 | 2379.350 | 2505.500 | 2411.110 | 2267.930 | 2199.750 | 2368.460 | 2714.230 |
| 65  | 2202.930 | 2034.280 | 2062.580 | 2267.270 | 2403.360 | 2301.820 | 2162.520 | 2085.420 | 2253.260 | 2598.620 |
| 66  | 2090.310 | 1925.630 | 1961.030 | 2168.430 | 2304.020 | 2200.230 | 2056.860 | 1971.940 | 2137.300 | 2482.990 |
| 67  | 1977.170 | 1814.770 | 1860.780 | 2067.980 | 2206.910 | 2102.980 | 1956.280 | 1860.390 | 2020.710 | 2369.720 |
| 68  | 1865.300 | 1706.710 | 1755.760 | 1967.420 | 2090.150 | 1996.370 | 1843.680 | 1750.240 | 1904.380 | 2255.500 |
| 69  | 1753.550 | 1602.390 | 1653.990 | 1865.760 | 1996.660 | 1892.240 | 1741.880 | 1638.180 | 1791.840 | 2140.310 |
| 70  | 1644.350 | 1497.750 | 1559.920 | 1772.970 | 1899.820 | 1800.200 | 1643.500 | 1530.700 | 1676.350 | 2028.530 |
| 71  | 1536.890 | 1394.190 | 1467.320 | 1682.220 | 1807.820 | 1706.980 | 1547.100 | 1426.250 | 1563.650 | 1918.070 |
| 72  | 1426.870 | 1291.520 | 1370.310 | 1591.310 | 1719.420 | 1618.160 | 1446.650 | 1321.570 | 1452.440 | 1807.380 |
| 73  | 1319.390 | 1192.790 | 1282.230 | 1507.120 | 1629.900 | 1530.620 | 1354.650 | 1214.050 | 1340.930 | 1697.980 |
| 74  | 1216.100 | 1093.250 | 1197.360 | 1422.530 | 1544.460 | 1442.990 | 1266.520 | 1113.540 | 1231.800 | 1589.350 |
| 75  | 1111.150 | 997.930  | 1113.060 | 1340.940 | 1462.430 | 1359.940 | 1181.590 | 1016.080 | 1125.500 | 1481.790 |
| 76  | 1007.350 | 905.150  | 1031.310 | 1260.310 | 1380.000 | 1279.490 | 1096.580 | 922.810  | 1018.190 | 1378.080 |
| 77  | 906.980  | 814.760  | 953.650  | 1181.120 | 1301.330 | 1200.780 | 1015.440 | 829.790  | 912.950  | 1273.330 |
| 78  | 808.770  | 730.270  | 878.900  | 1107.810 | 1225.560 | 1124.220 | 937.530  | 741.790  | 811.970  | 1173.170 |
| 79  | 713.460  | 648.600  | 807.060  | 1034.630 | 1151.850 | 1051.300 | 862.960  | 657.890  | 712.120  | 1073.160 |
| 80  | 621.370  | 572.420  | 738.120  | 965.740  | 1080.710 | 981.410  | 791.500  | 580.210  | 617.100  | 971.650  |
| 81  | 531.780  | 496.310  | 671.990  | 897.840  | 1011.520 | 912.820  | 722.540  | 506.760  | 522.170  | 878.460  |
| 82  | 445.290  | 428.660  | 608.870  | 833.490  | 945.660  | 847.440  | 657.450  | 436.750  | 434.750  | 786.190  |
| 83  | 365.560  | 366.410  | 549.780  | 772.560  | 882.070  | 784.080  | 596.300  | 373.360  | 351.790  | 698.540  |
| 84  | 294.440  | 309.110  | 494.180  | 712.100  | 821.270  | 724.300  | 535.230  | 315.280  | 276.130  | 616.240  |
| 85  | 223.430  | 257.580  | 441.930  | 656.250  | 762.500  | 667.430  | 480.850  | 264.150  | 207.520  | 540.700  |
| 86  | 162.980  | 211.890  | 392.910  | 603.210  | 705.000  | 612.290  | 428.290  | 217.400  | 146.180  | 470.030  |
| 87  | 112.230  | 172.270  | 348.070  | 550.210  | 652.380  | 560.790  | 381.030  | 176.540  | 96.910   | 404.640  |
| 88  | 71.930   | 138.350  | 308.220  | 502.370  | 601.790  | 510.720  | 336.600  | 141.560  | 58.920   | 345.370  |
| 89  | 45.010   | 109.530  | 268.430  | 456.570  | 551.240  | 465.140  | 295.350  | 112.200  | 32.540   | 294.830  |
| 90  | 23.000   | 85.570   | 233.330  | 413.260  | 504.530  | 420.670  | 257.630  | 87.350   | 16.340   | 244.370  |
| 91  | 20.560   | 66.680   | 201.300  | 372.700  | 460.540  | 379.410  | 222.740  | 67.320   | 15.500   | 201.930  |
| 92  | 19.880   | 51.820   | 172.860  | 335.420  | 419.330  | 340.630  | 191.980  | 51.230   | 14.930   | 164.520  |
| 93  | 19.440   | 40.220   | 147.270  | 300.100  | 380.490  | 306.250  | 163.880  | 38.740   | 14.530   | 132.940  |
| 94  | 19.090   | 31.190   | 124.720  | 267.160  | 343.610  | 271.910  | 138.740  | 29.100   | 14.180   | 106.260  |
| 95  | 18.770   | 22.980   | 104.310  | 236.810  | 308.520  | 240.500  | 116.290  | 19.720   | 13.970   | 84.080   |
| 96  | 18.480   | 17.600   | 86.800   | 208.810  | 276.700  | 212.000  | 96.900   | 13.460   | 13.750   | 66.040   |
| 97  | 18.240   | 16.930   | 71.350   | 183.200  | 246.720  | 185.510  | 79.710   | 12.720   | 13.630   | 51.800   |
| 98  | 18.050   | 16.730   | 57.800   | 159.620  | 218.910  | 161.490  | 64.460   | 12.580   | 13.600   | 40.440   |
| 99  | 17.840   | 16.590   | 45.390   | 137.700  | 192.840  | 139.480  | 51.020   | 12.500   | 14.000   | 30.990   |
| 100 | 17.620   | 16.450   | 31.430   | 118.380  | 168.970  | 119.300  | 37.280   | 12.420   | 13.960   | 21.770   |
| 101 | 17.420   | 16.330   | 20.370   | 100.660  | 147.100  | 101.170  | 23.100   | 12.360   | 14.830   | 16.110   |
| 102 | 17.260   | 16.220   | 16.630   | 84.700   | 127.430  | 84.550   | 13.960   | 12.300   | 15.080   | 15.030   |
| 103 | 17.090   | 16.110   | 16.180   | 69.760   | 108.760  | 69.580   | 12.540   | 12.250   | 15.170   | 14.680   |
| 104 | 16.950   | 16.010   | 16.040   | 54.410   | 91.800   | 54.230   | 12.390   | 12.220   | 15.990   | 14.370   |
| 105 | 16.850   | 15.930   | 15.930   | 37.590   | 76.160   | 36.700   | 12.320   | 12.180   | 16.500   | 14.090   |
| 106 | 16.780   | 15.850   | 15.850   | 23.620   | 60.770   | 22.000   | 12.280   | 12.160   | 14.710   | 13.820   |
| 107 | 16.690   | 15.780   | 15.780   | 16.730   | 42.770   | 13.560   | 12.260   | 12.150   | 15.500   | 13.620   |
| 108 | 16.590   | 15.710   | 15.720   | 15.980   | 26.410   | 12.610   | 12.260   | 12.140   | 12.660   | 13.510   |
| 109 | 16.510   | 15.670   | 15.660   | 15.850   | 15.000   | 12.510   | 12.260   | 12.150   | 12.670   | 13.460   |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**CANDELA TABULATION - (Cont.)**

|     |        |        |        |        |        |        |        |        |        |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 110 | 16.460 | 15.650 | 15.620 | 15.750 | 12.800 | 12.470 | 12.260 | 12.150 | 12.680 | 13.400 |
| 111 | 16.410 | 15.640 | 15.560 | 15.700 | 12.640 | 12.460 | 12.260 | 12.160 | 12.690 | 13.370 |
| 112 | 16.370 | 15.630 | 15.540 | 15.650 | 12.610 | 12.450 | 12.260 | 12.180 | 12.700 | 13.350 |
| 113 | 16.330 | 15.610 | 15.500 | 15.590 | 12.600 | 12.450 | 12.280 | 12.220 | 12.710 | 13.350 |
| 114 | 16.310 | 15.600 | 15.480 | 15.570 | 12.590 | 12.470 | 12.310 | 12.270 | 12.730 | 13.330 |
| 115 | 16.300 | 15.590 | 15.470 | 15.530 | 12.610 | 12.490 | 12.340 | 12.330 | 12.780 | 13.320 |
| 116 | 16.290 | 15.590 | 15.470 | 15.520 | 12.620 | 12.500 | 12.380 | 12.400 | 12.810 | 13.320 |
| 117 | 16.280 | 15.610 | 15.460 | 15.500 | 12.640 | 12.510 | 12.420 | 12.460 | 12.830 | 13.330 |
| 118 | 16.270 | 15.630 | 15.480 | 15.490 | 12.660 | 12.550 | 12.450 | 12.520 | 12.880 | 13.340 |
| 119 | 16.260 | 15.670 | 15.480 | 15.490 | 12.680 | 12.580 | 12.500 | 12.600 | 12.920 | 13.360 |
| 120 | 16.280 | 15.720 | 15.500 | 15.500 | 12.710 | 12.620 | 12.540 | 12.670 | 12.970 | 13.390 |
| 121 | 16.300 | 15.750 | 15.530 | 15.510 | 12.750 | 12.660 | 12.590 | 12.730 | 13.020 | 13.410 |
| 122 | 16.300 | 15.800 | 15.560 | 15.540 | 12.800 | 12.710 | 12.640 | 12.810 | 13.070 | 13.440 |
| 123 | 16.330 | 15.840 | 15.590 | 15.550 | 12.830 | 12.760 | 12.710 | 12.910 | 13.120 | 13.480 |
| 124 | 16.340 | 15.900 | 15.610 | 15.580 | 12.860 | 12.810 | 12.780 | 12.980 | 13.150 | 13.510 |
| 125 | 16.360 | 15.960 | 15.630 | 15.630 | 12.920 | 12.860 | 12.840 | 13.070 | 13.220 | 13.560 |
| 126 | 16.370 | 16.030 | 15.670 | 15.640 | 12.970 | 12.920 | 12.920 | 13.160 | 13.300 | 13.630 |
| 127 | 16.400 | 16.050 | 15.710 | 15.670 | 13.030 | 12.990 | 13.000 | 13.250 | 13.370 | 13.680 |
| 128 | 16.440 | 16.100 | 15.760 | 15.700 | 13.110 | 13.050 | 13.090 | 13.320 | 13.470 | 13.750 |
| 129 | 16.490 | 16.160 | 15.810 | 15.730 | 13.150 | 13.120 | 13.170 | 13.420 | 13.540 | 13.810 |
| 130 | 16.540 | 16.220 | 15.880 | 15.750 | 13.220 | 13.190 | 13.260 | 13.510 | 13.640 | 13.880 |
| 131 | 16.610 | 16.290 | 15.960 | 15.830 | 13.290 | 13.270 | 13.380 | 13.610 | 13.740 | 13.960 |
| 132 | 16.670 | 16.370 | 16.040 | 15.870 | 13.370 | 13.340 | 13.490 | 13.710 | 13.820 | 14.050 |
| 133 | 16.730 | 16.450 | 16.120 | 15.920 | 13.450 | 13.430 | 13.600 | 13.800 | 13.930 | 14.120 |
| 134 | 16.810 | 16.530 | 16.210 | 15.980 | 13.510 | 13.520 | 13.710 | 13.910 | 14.020 | 14.200 |
| 135 | 16.860 | 16.600 | 16.280 | 16.030 | 13.600 | 13.610 | 13.820 | 14.020 | 14.100 | 14.280 |
| 136 | 16.910 | 16.660 | 16.350 | 16.070 | 13.680 | 13.720 | 13.950 | 14.150 | 14.190 | 14.370 |
| 137 | 16.960 | 16.700 | 16.420 | 16.110 | 13.780 | 13.810 | 14.070 | 14.270 | 14.300 | 14.420 |
| 138 | 17.010 | 16.750 | 16.480 | 16.160 | 13.880 | 13.930 | 14.180 | 14.400 | 14.420 | 14.520 |
| 139 | 17.050 | 16.820 | 16.540 | 16.210 | 13.990 | 14.040 | 14.300 | 14.520 | 14.540 | 14.640 |
| 140 | 17.110 | 16.890 | 16.610 | 16.260 | 14.110 | 14.160 | 14.430 | 14.650 | 14.660 | 14.750 |
| 141 | 17.160 | 16.940 | 16.670 | 16.330 | 14.210 | 14.280 | 14.570 | 14.780 | 14.790 | 14.890 |
| 142 | 17.220 | 17.010 | 16.760 | 16.400 | 14.330 | 14.390 | 14.680 | 14.900 | 14.920 | 15.000 |
| 143 | 17.280 | 17.060 | 16.840 | 16.490 | 14.450 | 14.490 | 14.770 | 15.020 | 15.040 | 15.110 |
| 144 | 17.340 | 17.140 | 16.920 | 16.600 | 14.550 | 14.610 | 14.840 | 15.130 | 15.160 | 15.230 |
| 145 | 17.410 | 17.240 | 17.010 | 16.710 | 14.670 | 14.710 | 14.920 | 15.260 | 15.280 | 15.360 |
| 146 | 17.500 | 17.310 | 17.130 | 16.790 | 14.780 | 14.800 | 14.970 | 15.380 | 15.400 | 15.480 |
| 147 | 17.580 | 17.410 | 17.230 | 16.860 | 14.890 | 14.920 | 14.990 | 15.510 | 15.530 | 15.630 |
| 148 | 17.640 | 17.500 | 17.310 | 16.950 | 15.010 | 15.040 | 15.070 | 15.640 | 15.680 | 15.760 |
| 149 | 17.740 | 17.570 | 17.420 | 17.030 | 15.130 | 15.130 | 15.170 | 15.770 | 15.830 | 15.930 |
| 150 | 17.830 | 17.670 | 17.510 | 17.090 | 15.260 | 15.240 | 15.300 | 15.880 | 16.000 | 16.090 |
| 151 | 17.930 | 17.750 | 17.590 | 17.160 | 15.370 | 15.350 | 15.420 | 15.640 | 16.140 | 16.280 |
| 152 | 18.010 | 17.840 | 17.650 | 17.220 | 15.520 | 15.470 | 15.540 | 15.650 | 16.300 | 16.430 |
| 153 | 18.090 | 17.910 | 17.720 | 17.270 | 15.630 | 15.590 | 15.660 | 15.780 | 16.470 | 16.610 |
| 154 | 18.180 | 17.990 | 17.770 | 17.290 | 15.760 | 15.710 | 15.780 | 15.930 | 16.650 | 16.760 |
| 155 | 18.260 | 18.060 | 17.810 | 17.350 | 15.890 | 15.840 | 15.900 | 16.060 | 16.800 | 16.900 |
| 156 | 18.330 | 18.140 | 17.820 | 17.390 | 16.030 | 15.950 | 16.030 | 16.210 | 16.920 | 17.040 |
| 157 | 18.410 | 18.220 | 17.840 | 17.450 | 16.160 | 16.090 | 16.150 | 16.350 | 16.940 | 17.210 |
| 158 | 18.500 | 18.290 | 17.850 | 17.490 | 16.310 | 16.210 | 16.290 | 16.500 | 16.940 | 17.350 |
| 159 | 18.580 | 18.350 | 17.830 | 17.550 | 16.450 | 16.340 | 16.420 | 16.660 | 17.010 | 17.510 |
| 160 | 18.660 | 18.420 | 17.800 | 17.600 | 16.590 | 16.460 | 16.570 | 16.820 | 17.070 | 17.650 |
| 161 | 18.740 | 18.480 | 17.790 | 17.640 | 16.750 | 16.620 | 16.710 | 16.970 | 17.150 | 17.800 |
| 162 | 18.830 | 18.540 | 17.840 | 17.690 | 16.890 | 16.740 | 16.860 | 17.100 | 17.280 | 17.930 |
| 163 | 18.920 | 18.580 | 17.890 | 17.730 | 17.050 | 16.880 | 16.990 | 17.250 | 17.400 | 18.000 |
| 164 | 19.020 | 18.590 | 17.920 | 17.770 | 17.200 | 17.020 | 17.130 | 17.390 | 17.540 | 18.010 |
| 165 | 19.100 | 18.600 | 17.970 | 17.820 | 17.360 | 17.180 | 17.280 | 17.520 | 17.660 | 18.050 |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**CANDELA TABULATION - (Cont.)**

|     |        |        |        |        |        |        |        |        |        |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 166 | 19.190 | 18.560 | 17.990 | 17.860 | 17.540 | 17.330 | 17.420 | 17.650 | 17.790 | 18.110 |
| 167 | 19.270 | 18.500 | 18.040 | 17.890 | 17.730 | 17.490 | 17.570 | 17.780 | 17.910 | 18.140 |
| 168 | 19.330 | 18.380 | 18.070 | 17.930 | 17.950 | 17.660 | 17.710 | 17.920 | 18.020 | 18.150 |
| 169 | 19.390 | 18.380 | 18.120 | 17.950 | 18.180 | 17.850 | 17.860 | 18.040 | 18.100 | 18.170 |
| 170 | 19.450 | 18.440 | 18.150 | 17.990 | 18.430 | 18.050 | 18.010 | 18.170 | 18.210 | 18.150 |
| 171 | 19.490 | 18.480 | 18.180 | 18.000 | 18.670 | 18.260 | 18.140 | 18.290 | 18.300 | 18.180 |
| 172 | 19.450 | 18.470 | 18.160 | 18.020 | 18.830 | 18.500 | 18.320 | 18.410 | 18.390 | 18.250 |
| 173 | 19.050 | 18.270 | 18.050 | 17.980 | 18.910 | 18.670 | 18.490 | 18.520 | 18.480 | 18.300 |
| 174 | 19.030 | 18.260 | 18.040 | 17.990 | 18.950 | 18.800 | 18.660 | 18.610 | 18.560 | 18.350 |
| 175 | 19.010 | 18.240 | 18.020 | 18.010 | 18.940 | 18.740 | 18.760 | 18.610 | 18.590 | 18.290 |
| 176 | 18.870 | 18.220 | 18.020 | 18.050 | 18.860 | 18.720 | 18.830 | 18.650 | 18.540 | 18.260 |
| 177 | 18.390 | 18.210 | 18.000 | 18.100 | 18.890 | 18.700 | 18.920 | 18.720 | 18.520 | 18.210 |
| 178 | 18.410 | 18.150 | 18.020 | 18.100 | 18.930 | 18.800 | 19.060 | 18.940 | 18.550 | 18.240 |
| 179 | 18.700 | 18.370 | 18.120 | 18.270 | 18.960 | 18.780 | 19.040 | 19.230 | 18.610 | 18.290 |
| 180 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 |

**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  | 7492.455     | 7492.455     | 7492.455     | 7492.455     | 7492.455     | 7492.455     | 7492.455     |
| 1  | 7490.290     | 7514.940     | 7520.920     | 7532.900     | 7538.750     | 7482.270     | 7454.510     |
| 2  | 7498.200     | 7519.930     | 7522.920     | 7536.840     | 7542.750     | 7483.240     | 7448.590     |
| 3  | 7503.100     | 7521.940     | 7520.980     | 7537.810     | 7543.770     | 7481.230     | 7439.690     |
| 4  | 7503.090     | 7520.970     | 7518.010     | 7535.800     | 7542.800     | 7476.250     | 7426.830     |
| 5  | 7502.050     | 7518.010     | 7513.080     | 7530.820     | 7537.890     | 7469.260     | 7412.980     |
| 6  | 7497.050     | 7512.090     | 7503.220     | 7523.840     | 7529.990     | 7458.320     | 7393.210     |
| 7  | 7489.070     | 7503.180     | 7492.320     | 7513.890     | 7520.090     | 7444.400     | 7372.380     |
| 8  | 7478.150     | 7491.300     | 7476.500     | 7500.990     | 7506.240     | 7428.520     | 7347.620     |
| 9  | 7464.230     | 7475.460     | 7458.660     | 7484.100     | 7489.400     | 7406.690     | 7319.860     |
| 10 | 7447.330     | 7457.610     | 7437.850     | 7465.220     | 7470.570     | 7384.810     | 7289.130     |
| 11 | 7428.450     | 7437.780     | 7415.050     | 7443.360     | 7448.770     | 7358.000     | 7255.420     |
| 12 | 7406.580     | 7413.010     | 7388.290     | 7417.540     | 7423.990     | 7329.190     | 7218.730     |
| 13 | 7381.750     | 7386.230     | 7360.520     | 7389.730     | 7395.250     | 7296.410     | 7178.080     |
| 14 | 7354.880     | 7357.460     | 7328.800     | 7359.920     | 7363.530     | 7260.660     | 7133.470     |
| 15 | 7322.100     | 7325.730     | 7294.090     | 7326.170     | 7329.800     | 7221.920     | 7086.840     |
| 16 | 7287.340     | 7291.110     | 7258.470     | 7291.390     | 7292.230     | 7180.210     | 7038.360     |
| 17 | 7250.570     | 7253.420     | 7217.850     | 7251.670     | 7251.580     | 7135.520     | 6985.810     |
| 18 | 7209.860     | 7211.780     | 7175.190     | 7209.950     | 7208.930     | 7087.860     | 6930.270     |
| 19 | 7167.270     | 7169.110     | 7128.600     | 7164.420     | 7161.350     | 7037.370     | 6870.770     |
| 20 | 7121.580     | 7122.500     | 7080.970     | 7118.730     | 7113.710     | 6985.730     | 6811.230     |
| 21 | 7071.950     | 7072.910     | 7030.390     | 7068.090     | 7062.150     | 6930.120     | 6746.780     |
| 22 | 7022.290     | 7021.320     | 6977.810     | 7014.500     | 7007.600     | 6869.580     | 6680.300     |
| 23 | 6968.650     | 6966.760     | 6921.290     | 6960.850     | 6949.090     | 6809.010     | 6608.900     |
| 24 | 6911.080     | 6910.200     | 6862.750     | 6900.320     | 6888.570     | 6744.470     | 6536.460     |
| 25 | 6852.490     | 6850.680     | 6801.250     | 6841.730     | 6826.070     | 6676.980     | 6462.050     |
| 26 | 6790.920     | 6789.160     | 6738.740     | 6778.200     | 6760.600     | 6609.460     | 6384.670     |
| 27 | 6726.360     | 6723.870     | 6673.450     | 6713.660     | 6693.310     | 6537.980     | 6305.510     |
| 28 | 6657.870     | 6657.380     | 6603.050     | 6646.140     | 6621.910     | 6463.790     | 6221.220     |
| 29 | 6588.380     | 6587.940     | 6532.580     | 6574.730     | 6547.510     | 6389.550     | 6134.900     |
| 30 | 6517.100     | 6516.500     | 6460.160     | 6508.350     | 6471.120     | 6309.750     | 6048.550     |
| 31 | 6443.640     | 6442.100     | 6385.750     | 6432.580     | 6393.720     | 6226.310     | 5958.290     |
| 32 | 6370.110     | 6366.680     | 6308.370     | 6356.770     | 6312.380     | 6141.230     | 5866.010     |
| 33 | 6289.370     | 6287.320     | 6229.000     | 6276.440     | 6230.020     | 6053.160     | 5770.770     |
| 34 | 6208.600     | 6206.940     | 6147.640     | 6194.320     | 6145.690     | 5963.780     | 5675.500     |
| 35 | 6125.430     | 6126.550     | 6063.310     | 6114.680     | 6058.380     | 5871.820     | 5576.290     |
| 36 | 6037.470     | 6041.240     | 5976.990     | 6025.470     | 5968.100     | 5777.380     | 5476.070     |

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : HBL3315-50D.IES

CANDELA TABULATION - (Cont.)

|    |          |          |          |          |          |          |          |
|----|----------|----------|----------|----------|----------|----------|----------|
| 37 | 5949.170 | 5953.920 | 5887.700 | 5940.680 | 5875.820 | 5680.910 | 5373.860 |
| 38 | 5859.110 | 5864.850 | 5798.620 | 5849.260 | 5782.800 | 5583.460 | 5269.960 |
| 39 | 5764.610 | 5774.550 | 5705.380 | 5756.040 | 5688.530 | 5483.110 | 5162.820 |
| 40 | 5671.880 | 5680.310 | 5612.090 | 5663.290 | 5589.340 | 5382.000 | 5055.630 |
| 41 | 5576.390 | 5585.040 | 5516.840 | 5564.980 | 5491.080 | 5279.140 | 4948.450 |
| 42 | 5476.280 | 5489.770 | 5417.640 | 5471.900 | 5389.880 | 5175.010 | 4838.320 |
| 43 | 5377.870 | 5389.570 | 5319.380 | 5370.400 | 5287.670 | 5068.100 | 4726.200 |
| 44 | 5278.540 | 5291.300 | 5218.180 | 5271.640 | 5186.430 | 4959.890 | 4616.010 |
| 45 | 5172.110 | 5189.110 | 5115.970 | 5168.170 | 5081.280 | 4849.970 | 4501.920 |
| 46 | 5070.140 | 5083.940 | 5009.820 | 5063.550 | 4973.130 | 4740.680 | 4387.790 |
| 47 | 4966.290 | 4981.690 | 4908.540 | 4961.410 | 4867.900 | 4628.910 | 4275.620 |
| 48 | 4856.830 | 4874.550 | 4801.420 | 4850.590 | 4758.770 | 4515.560 | 4158.570 |
| 49 | 4749.800 | 4769.330 | 4690.300 | 4746.970 | 4647.640 | 4403.590 | 4042.440 |
| 50 | 4641.570 | 4660.490 | 4583.370 | 4637.910 | 4535.800 | 4290.530 | 3927.620 |
| 51 | 4530.050 | 4550.340 | 4473.250 | 4528.530 | 4427.580 | 4175.550 | 3812.500 |
| 52 | 4419.700 | 4439.190 | 4361.120 | 4419.320 | 4313.520 | 4060.580 | 3695.410 |
| 53 | 4309.930 | 4327.050 | 4248.000 | 4305.960 | 4200.370 | 3946.750 | 3579.280 |
| 54 | 4195.820 | 4215.890 | 4134.860 | 4194.180 | 4087.230 | 3829.300 | 3461.200 |
| 55 | 4081.940 | 4101.780 | 4022.700 | 4078.590 | 3973.110 | 3713.040 | 3344.080 |
| 56 | 3969.840 | 3988.640 | 3910.550 | 3966.930 | 3859.960 | 3597.630 | 3226.970 |
| 57 | 3855.500 | 3874.510 | 3800.370 | 3853.440 | 3746.820 | 3482.320 | 3111.830 |
| 58 | 3740.320 | 3761.360 | 3693.150 | 3737.740 | 3633.680 | 3365.610 | 2995.720 |
| 59 | 3627.040 | 3646.250 | 3584.000 | 3625.580 | 3515.630 | 3248.720 | 2885.490 |
| 60 | 3511.730 | 3534.080 | 3478.760 | 3515.770 | 3403.420 | 3134.050 | 2775.330 |
| 61 | 3395.700 | 3425.190 | 3349.350 | 3406.480 | 3289.620 | 3018.430 | 2661.560 |
| 62 | 3281.990 | 3317.010 | 3220.320 | 3295.450 | 3174.510 | 2903.450 | 2547.130 |
| 63 | 3166.470 | 3204.900 | 3100.130 | 3180.230 | 3059.390 | 2788.280 | 2429.600 |
| 64 | 3050.450 | 3074.070 | 2992.790 | 3052.380 | 2947.200 | 2675.220 | 2315.970 |
| 65 | 2938.470 | 2947.000 | 2891.100 | 2926.880 | 2842.110 | 2562.400 | 2202.930 |
| 66 | 2824.470 | 2841.470 | 2789.470 | 2819.080 | 2737.090 | 2449.790 | 2090.310 |
| 67 | 2712.240 | 2736.140 | 2689.230 | 2707.490 | 2630.210 | 2336.750 | 1977.170 |
| 68 | 2605.350 | 2631.380 | 2563.660 | 2602.140 | 2524.900 | 2224.390 | 1865.300 |
| 69 | 2499.120 | 2522.360 | 2453.570 | 2501.680 | 2411.730 | 2116.290 | 1753.550 |
| 70 | 2386.140 | 2412.760 | 2355.040 | 2387.170 | 2293.150 | 2006.590 | 1644.350 |
| 71 | 2260.120 | 2296.970 | 2264.850 | 2277.740 | 2178.980 | 1897.960 | 1536.890 |
| 72 | 2146.940 | 2194.980 | 2156.700 | 2174.320 | 2071.770 | 1788.730 | 1426.870 |
| 73 | 2040.270 | 2103.050 | 2048.930 | 2086.140 | 1967.940 | 1684.090 | 1319.390 |
| 74 | 1934.970 | 2003.110 | 1956.150 | 1986.420 | 1870.430 | 1579.670 | 1216.100 |
| 75 | 1837.440 | 1896.810 | 1864.840 | 1884.380 | 1766.090 | 1475.850 | 1111.150 |
| 76 | 1725.250 | 1803.030 | 1774.510 | 1790.630 | 1661.340 | 1372.410 | 1007.350 |
| 77 | 1622.900 | 1711.930 | 1688.540 | 1699.820 | 1569.890 | 1271.580 | 906.980  |
| 78 | 1532.840 | 1622.980 | 1601.570 | 1615.290 | 1479.980 | 1176.350 | 808.770  |
| 79 | 1437.490 | 1537.360 | 1518.950 | 1528.450 | 1387.630 | 1074.430 | 713.460  |
| 80 | 1345.600 | 1453.270 | 1437.120 | 1446.520 | 1301.330 | 976.090  | 621.370  |
| 81 | 1258.320 | 1370.260 | 1358.280 | 1364.290 | 1217.550 | 884.490  | 531.780  |
| 82 | 1173.720 | 1289.600 | 1279.370 | 1284.870 | 1135.710 | 795.080  | 445.290  |
| 83 | 1090.550 | 1210.780 | 1206.300 | 1208.870 | 1057.300 | 711.700  | 365.560  |
| 84 | 1011.990 | 1135.500 | 1133.730 | 1133.120 | 980.730  | 634.030  | 294.440  |
| 85 | 935.890  | 1063.440 | 1064.570 | 1062.070 | 907.160  | 563.360  | 223.430  |
| 86 | 861.010  | 991.950  | 996.630  | 991.780  | 836.180  | 492.730  | 162.980  |
| 87 | 791.480  | 923.990  | 931.880  | 925.160  | 768.750  | 429.520  | 112.230  |
| 88 | 723.900  | 858.510  | 869.420  | 861.220  | 702.950  | 371.100  | 71.930   |
| 89 | 659.350  | 796.470  | 809.210  | 799.010  | 642.060  | 317.060  | 45.010   |
| 90 | 599.110  | 735.950  | 751.690  | 739.280  | 582.730  | 267.790  | 23.000   |
| 91 | 538.950  | 678.110  | 695.580  | 681.940  | 526.600  | 224.720  | 20.560   |
| 92 | 485.430  | 623.190  | 643.220  | 629.420  | 474.660  | 187.030  | 19.880   |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**CANDELA TABULATION - (Cont.)**

|     |         |         |         |         |         |         |        |
|-----|---------|---------|---------|---------|---------|---------|--------|
| 93  | 434.660 | 571.060 | 592.710 | 578.270 | 426.180 | 153.960 | 19.440 |
| 94  | 387.360 | 522.160 | 545.410 | 527.160 | 380.510 | 125.290 | 19.090 |
| 95  | 342.740 | 474.900 | 498.920 | 481.130 | 337.110 | 101.310 | 18.770 |
| 96  | 302.630 | 430.950 | 455.920 | 437.280 | 300.010 | 81.580  | 18.480 |
| 97  | 265.540 | 388.940 | 414.770 | 396.520 | 262.990 | 65.540  | 18.240 |
| 98  | 231.230 | 350.150 | 376.300 | 357.630 | 230.050 | 52.800  | 18.050 |
| 99  | 200.160 | 313.320 | 339.570 | 320.840 | 199.840 | 41.980  | 17.840 |
| 100 | 172.370 | 280.020 | 306.830 | 287.200 | 172.650 | 32.950  | 17.620 |
| 101 | 147.260 | 248.650 | 274.130 | 255.830 | 148.590 | 24.170  | 17.420 |
| 102 | 125.520 | 219.530 | 244.540 | 227.040 | 127.080 | 19.990  | 17.260 |
| 103 | 105.600 | 193.190 | 217.300 | 200.000 | 108.040 | 19.340  | 17.090 |
| 104 | 87.920  | 168.560 | 191.640 | 175.240 | 90.580  | 18.920  | 16.950 |
| 105 | 71.980  | 145.870 | 168.070 | 152.870 | 74.720  | 18.550  | 16.850 |
| 106 | 57.620  | 125.470 | 146.350 | 132.140 | 60.780  | 18.220  | 16.780 |
| 107 | 43.210  | 106.280 | 126.200 | 112.570 | 46.420  | 17.930  | 16.690 |
| 108 | 28.690  | 88.640  | 106.880 | 94.630  | 32.180  | 17.680  | 16.590 |
| 109 | 18.990  | 71.980  | 89.240  | 78.180  | 22.550  | 17.520  | 16.510 |
| 110 | 15.490  | 54.730  | 72.240  | 61.480  | 19.560  | 17.380  | 16.460 |
| 111 | 14.960  | 37.400  | 53.270  | 44.000  | 19.000  | 17.300  | 16.410 |
| 112 | 14.600  | 23.600  | 36.260  | 28.850  | 18.600  | 17.190  | 16.370 |
| 113 | 14.330  | 16.770  | 23.980  | 20.900  | 18.280  | 17.130  | 16.330 |
| 114 | 14.170  | 14.890  | 18.930  | 18.650  | 18.070  | 17.060  | 16.310 |
| 115 | 14.080  | 14.660  | 18.100  | 18.320  | 17.930  | 17.000  | 16.300 |
| 116 | 14.030  | 14.550  | 17.980  | 18.130  | 17.800  | 16.940  | 16.290 |
| 117 | 13.980  | 14.480  | 17.860  | 17.970  | 17.700  | 16.900  | 16.280 |
| 118 | 13.940  | 14.440  | 17.750  | 17.870  | 17.610  | 16.860  | 16.270 |
| 119 | 13.930  | 14.390  | 17.650  | 17.750  | 17.540  | 16.830  | 16.260 |
| 120 | 13.900  | 14.350  | 17.550  | 17.660  | 17.470  | 16.800  | 16.280 |
| 121 | 13.890  | 14.300  | 17.460  | 17.570  | 17.400  | 16.790  | 16.300 |
| 122 | 13.880  | 14.280  | 17.390  | 17.490  | 17.350  | 16.780  | 16.300 |
| 123 | 13.880  | 14.260  | 17.330  | 17.430  | 17.300  | 16.780  | 16.330 |
| 124 | 13.870  | 14.250  | 17.280  | 17.360  | 17.260  | 16.770  | 16.340 |
| 125 | 13.880  | 14.230  | 17.260  | 17.330  | 17.220  | 16.760  | 16.360 |
| 126 | 13.890  | 14.240  | 17.240  | 17.280  | 17.200  | 16.760  | 16.370 |
| 127 | 13.930  | 14.230  | 17.210  | 17.250  | 17.180  | 16.750  | 16.400 |
| 128 | 13.960  | 14.250  | 17.190  | 17.220  | 17.140  | 16.770  | 16.440 |
| 129 | 14.000  | 14.250  | 17.180  | 17.200  | 17.150  | 16.790  | 16.490 |
| 130 | 14.040  | 14.270  | 17.180  | 17.210  | 17.160  | 16.830  | 16.540 |
| 131 | 14.090  | 14.310  | 17.170  | 17.220  | 17.160  | 16.870  | 16.610 |
| 132 | 14.140  | 14.350  | 17.160  | 17.250  | 17.180  | 16.930  | 16.670 |
| 133 | 14.210  | 14.370  | 17.160  | 17.260  | 17.220  | 16.980  | 16.730 |
| 134 | 14.270  | 14.430  | 17.150  | 17.270  | 17.240  | 17.020  | 16.810 |
| 135 | 14.320  | 14.480  | 17.130  | 17.280  | 17.250  | 17.050  | 16.860 |
| 136 | 14.410  | 14.530  | 17.120  | 17.260  | 17.250  | 17.090  | 16.910 |
| 137 | 14.490  | 14.600  | 17.130  | 17.250  | 17.260  | 17.110  | 16.960 |
| 138 | 14.560  | 14.670  | 17.140  | 17.210  | 17.270  | 17.150  | 17.010 |
| 139 | 14.660  | 14.760  | 17.150  | 17.220  | 17.280  | 17.180  | 17.050 |
| 140 | 14.740  | 14.850  | 17.190  | 17.230  | 17.280  | 17.210  | 17.110 |
| 141 | 14.830  | 14.950  | 17.220  | 17.260  | 17.300  | 17.250  | 17.160 |
| 142 | 14.930  | 15.040  | 17.270  | 17.310  | 17.320  | 17.290  | 17.220 |
| 143 | 15.040  | 15.130  | 17.320  | 17.350  | 17.350  | 17.330  | 17.280 |
| 144 | 15.130  | 15.230  | 17.350  | 17.400  | 17.390  | 17.360  | 17.340 |
| 145 | 15.240  | 15.340  | 17.410  | 17.440  | 17.450  | 17.430  | 17.410 |
| 146 | 15.360  | 15.440  | 17.460  | 17.500  | 17.510  | 17.500  | 17.500 |
| 147 | 15.470  | 15.550  | 17.520  | 17.560  | 17.570  | 17.580  | 17.580 |
| 148 | 15.580  | 15.670  | 17.590  | 17.630  | 17.630  | 17.640  | 17.640 |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**CANDELA TABULATION - (Cont.)**

|            |        |        |        |        |        |        |        |
|------------|--------|--------|--------|--------|--------|--------|--------|
| <b>149</b> | 15.700 | 15.780 | 17.640 | 17.690 | 17.690 | 17.710 | 17.740 |
| <b>150</b> | 15.820 | 15.900 | 17.720 | 17.770 | 17.760 | 17.790 | 17.830 |
| <b>151</b> | 15.950 | 16.020 | 17.780 | 17.830 | 17.830 | 17.870 | 17.930 |
| <b>152</b> | 16.080 | 16.140 | 17.890 | 17.930 | 17.910 | 17.950 | 18.010 |
| <b>153</b> | 16.200 | 16.260 | 18.000 | 18.000 | 17.960 | 18.010 | 18.090 |
| <b>154</b> | 16.320 | 16.390 | 18.090 | 18.070 | 18.050 | 18.100 | 18.180 |
| <b>155</b> | 16.430 | 16.510 | 18.190 | 18.140 | 18.110 | 18.180 | 18.260 |
| <b>156</b> | 16.570 | 16.640 | 18.280 | 18.240 | 18.200 | 18.270 | 18.330 |
| <b>157</b> | 16.720 | 16.770 | 18.340 | 18.310 | 18.270 | 18.360 | 18.410 |
| <b>158</b> | 16.880 | 16.910 | 18.420 | 18.380 | 18.340 | 18.420 | 18.500 |
| <b>159</b> | 17.030 | 17.060 | 18.480 | 18.460 | 18.400 | 18.500 | 18.580 |
| <b>160</b> | 17.190 | 17.190 | 18.530 | 18.520 | 18.480 | 18.590 | 18.660 |
| <b>161</b> | 17.360 | 17.330 | 18.580 | 18.590 | 18.530 | 18.670 | 18.740 |
| <b>162</b> | 17.520 | 17.490 | 18.620 | 18.650 | 18.600 | 18.740 | 18.830 |
| <b>163</b> | 17.710 | 17.640 | 18.690 | 18.700 | 18.660 | 18.830 | 18.920 |
| <b>164</b> | 17.890 | 17.810 | 18.730 | 18.770 | 18.720 | 18.900 | 19.020 |
| <b>165</b> | 18.050 | 17.970 | 18.800 | 18.810 | 18.790 | 18.970 | 19.100 |
| <b>166</b> | 18.210 | 18.140 | 18.850 | 18.860 | 18.830 | 19.060 | 19.190 |
| <b>167</b> | 18.360 | 18.330 | 18.910 | 18.910 | 18.890 | 19.140 | 19.270 |
| <b>168</b> | 18.480 | 18.520 | 18.950 | 18.960 | 18.940 | 19.220 | 19.330 |
| <b>169</b> | 18.580 | 18.700 | 18.990 | 18.990 | 18.970 | 19.290 | 19.390 |
| <b>170</b> | 18.620 | 18.810 | 19.040 | 19.020 | 19.020 | 19.360 | 19.450 |
| <b>171</b> | 18.630 | 18.870 | 19.080 | 19.040 | 19.060 | 19.420 | 19.490 |
| <b>172</b> | 18.630 | 18.910 | 19.080 | 19.040 | 19.050 | 19.440 | 19.450 |
| <b>173</b> | 18.610 | 18.910 | 19.000 | 18.920 | 18.840 | 19.000 | 19.050 |
| <b>174</b> | 18.570 | 18.880 | 19.000 | 18.900 | 18.830 | 18.970 | 19.030 |
| <b>175</b> | 18.440 | 18.690 | 19.010 | 18.870 | 18.810 | 18.950 | 19.010 |
| <b>176</b> | 18.270 | 18.580 | 19.030 | 18.870 | 18.790 | 18.950 | 18.870 |
| <b>177</b> | 18.170 | 18.440 | 19.040 | 18.850 | 18.760 | 18.940 | 18.390 |
| <b>178</b> | 18.140 | 18.380 | 19.030 | 18.750 | 18.750 | 18.920 | 18.410 |
| <b>179</b> | 18.140 | 18.320 | 19.000 | 18.880 | 19.020 | 19.410 | 18.700 |
| <b>180</b> | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 | 18.640 |



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens   | %Lamp  | %Fixt  |
|---------|----------|--------|--------|
| 0-20    | 2727.85  | 12.80  | 12.80  |
| 0-30    | 5759.48  | 27.10  | 27.10  |
| 0-40    | 9357.38  | 44.00  | 44.00  |
| 0-60    | 16232.48 | 76.30  | 76.30  |
| 0-80    | 20203.00 | 94.90  | 94.90  |
| 0-90    | 20909.71 | 98.20  | 98.20  |
| 10-90   | 20201.45 | 94.90  | 94.90  |
| 20-40   | 6629.53  | 31.10  | 31.10  |
| 20-50   | 10280.02 | 48.30  | 48.30  |
| 40-70   | 9324.18  | 43.80  | 43.80  |
| 60-80   | 3970.52  | 18.70  | 18.70  |
| 70-80   | 1521.44  | 7.10   | 7.10   |
| 80-90   | 706.72   | 3.30   | 3.30   |
| 90-110  | 306.95   | 1.40   | 1.40   |
| 90-120  | 323.08   | 1.50   | 1.50   |
| 90-130  | 336.48   | 1.60   | 1.60   |
| 90-150  | 358.57   | 1.70   | 1.70   |
| 90-180  | 373.39   | 1.80   | 1.80   |
| 110-180 | 66.44    | 0.30   | 0.30   |
| 0-180   | 21283.11 | 100.00 | 100.00 |

Total Luminaire Efficiency = 100.00%

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  |
|---------|---------|
| 0-10    | 708.27  |
| 10-20   | 2019.58 |
| 20-30   | 3031.63 |
| 30-40   | 3597.9  |
| 40-50   | 3650.49 |
| 50-60   | 3224.61 |
| 60-70   | 2449.08 |
| 70-80   | 1521.44 |
| 80-90   | 706.72  |
| 90-100  | 243.87  |
| 100-110 | 63.09   |
| 110-120 | 16.12   |
| 120-130 | 13.40   |
| 130-140 | 11.94   |
| 140-150 | 10.16   |
| 150-160 | 7.92    |
| 160-170 | 5.12    |
| 170-180 | 1.78    |

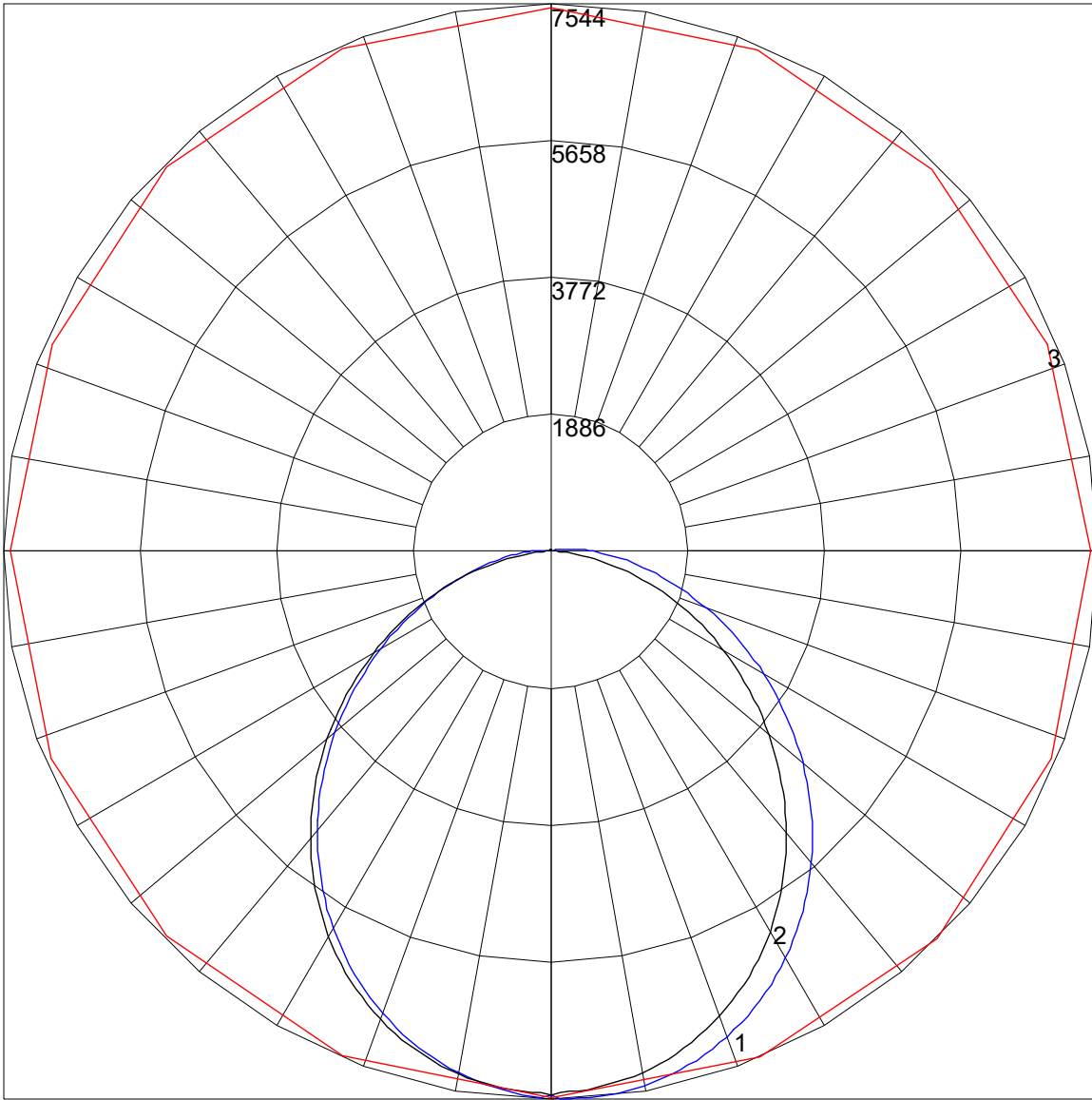
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBL3315-50D.IES**

**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 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |
| 1  | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 93  | 96  | 92  | 89  | 91  | 89  | 86  | 88  | 85  | 83  | 81 |
| 2  | 98  | 89  | 82  | 77  | 95  | 87  | 81  | 76  | 84  | 78  | 73  | 80  | 75  | 72  | 77  | 73  | 70  | 67 |
| 3  | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 65  | 60  | 68  | 63  | 59  | 57 |
| 4  | 82  | 70  | 61  | 54  | 79  | 68  | 60  | 54  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 55  | 51  | 49 |
| 5  | 75  | 62  | 53  | 47  | 73  | 61  | 53  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 54  | 49  | 44  | 42 |
| 6  | 69  | 56  | 47  | 41  | 67  | 55  | 47  | 40  | 53  | 46  | 40  | 51  | 44  | 39  | 49  | 44  | 39  | 37 |
| 7  | 64  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33 |
| 8  | 60  | 46  | 38  | 32  | 58  | 46  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 29 |
| 9  | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 28  | 40  | 33  | 28  | 38  | 32  | 28  | 26 |
| 10 | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 25  | 24 |

POLAR GRAPH



Maximum Candela = 7543.77 Located At Horizontal Angle = 315, Vertical Angle = 3  
# 1 - Vertical Plane Through Horizontal Angles (315 - 135) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 3 - Horizontal Cone Through Vertical Angle (3) (Through Max. Cd.)