



IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBIA48-LED175DMV35.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] LLIA000974-011A
 [TESTLAB] LightLab International Allentown, LLC
 [MANUFAC] Mobern Lighting Co., 8200 Stayton Drive, Jessup, MD 20794, USA
 [LUMCAT] HBIA48-LED175DMV35
 [LUMINAIRE] Catalog Number: HBIA48-LED175DMV35
 [MORE] Pendant/surface mounted, formed steel housing, formed aluminum LED mounting plates, no enclosure.
 [MORE] 624 white LEDs, four ULT Everline M18CC835D156N2S50C LED boards with 156 LEDs each.
 [MORE] Two ULT Everline D23CC90UNVTW-F LED drivers
 [MORE] 120.0Vac, 60.00Hz, 175W, 0.993PF, 7.7%THD(i)
 [OTHER] Absolute test - lamp lumens value set to -1
 [MORE] NA conventions used for C0 plane alignment and C-plane rotation direction.
 [MORE] The sample was tested at a distance of 9.5m.
 [MORE] This IES file was extrapolated from LLIA000974-011A
 [DATE] This file created: Wednesday, August 29, 2018 4:00:29 PM
 [ISSUE DATE] Wednesday, August 29, 2018 4:00:29 PM

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 23276 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 133 |
| Total Luminaire Watts | 175 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.30 |
| Spacing Criterion (90-270) | 1.28 |
| Spacing Criterion (Diagonal) | 1.40 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 1.14 m |
| Luminous Width (90-270) | 0.29 m |
| Luminous Height | 0.02 m |

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LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 24450 | 23039 | 22623 |
| 55 | 23486 | 21873 | 21362 |
| 65 | 21599 | 19593 | 15786 |
| 75 | 17190 | 7879 | 1697 |
| 85 | 7637 | 363 | 326 |

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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> |
|------|------------|-------------|-------------|-------------|-------------|
| 0.0 | 8344.768 | 8344.768 | 8344.768 | 8344.768 | 8344.768 |
| 0.5 | 8415.357 | 8343.421 | 8328.784 | 8324.231 | 8345.121 |
| 1.0 | 8414.251 | 8342.411 | 8327.774 | 8322.467 | 8343.277 |
| 1.5 | 8413.096 | 8340.568 | 8325.946 | 8320.768 | 8339.990 |
| 2.0 | 8410.756 | 8338.115 | 8323.638 | 8317.658 | 8336.351 |
| 2.5 | 8407.886 | 8335.149 | 8319.902 | 8313.794 | 8331.029 |
| 3.0 | 8404.551 | 8331.638 | 8316.007 | 8309.145 | 8325.305 |
| 3.5 | 8401.137 | 8327.309 | 8311.005 | 8303.261 | 8318.476 |
| 4.0 | 8396.327 | 8322.163 | 8305.361 | 8296.688 | 8311.165 |
| 4.5 | 8391.277 | 8316.407 | 8299.189 | 8289.169 | 8302.444 |
| 5.0 | 8385.537 | 8310.556 | 8292.183 | 8281.121 | 8293.049 |
| 5.5 | 8378.900 | 8303.614 | 8284.488 | 8271.678 | 8282.420 |
| 6.0 | 8372.022 | 8296.335 | 8276.135 | 8261.931 | 8270.925 |
| 6.5 | 8364.263 | 8287.886 | 8266.388 | 8250.644 | 8257.794 |
| 7.0 | 8355.990 | 8279.085 | 8256.303 | 8239.165 | 8244.231 |
| 7.5 | 8347.061 | 8269.241 | 8245.017 | 8226.259 | 8229.995 |
| 8.0 | 8337.570 | 8259.157 | 8233.378 | 8213.049 | 8214.604 |
| 8.5 | 8327.117 | 8248.384 | 8220.328 | 8198.636 | 8198.460 |
| 9.0 | 8316.568 | 8236.921 | 8207.566 | 8183.678 | 8182.508 |
| 9.5 | 8305.249 | 8225.410 | 8193.715 | 8168.111 | 8164.905 |
| 10.0 | 8293.321 | 8212.520 | 8178.901 | 8151.406 | 8146.837 |
| 10.5 | 8280.416 | 8198.925 | 8163.703 | 8134.460 | 8128.945 |
| 11.0 | 8267.382 | 8184.801 | 8147.430 | 8116.456 | 8109.370 |
| 11.5 | 8253.289 | 8170.660 | 8130.532 | 8098.709 | 8089.747 |
| 12.0 | 8238.684 | 8155.109 | 8112.641 | 8079.775 | 8069.114 |
| 12.5 | 8223.951 | 8139.815 | 8094.685 | 8061.242 | 8048.689 |
| 13.0 | 8208.240 | 8123.414 | 8075.350 | 8041.266 | 8027.222 |
| 13.5 | 8191.839 | 8106.468 | 8055.952 | 8021.723 | 8006.349 |
| 14.0 | 8175.807 | 8088.769 | 8036.553 | 8000.978 | 7984.321 |
| 14.5 | 8158.236 | 8070.428 | 8015.856 | 7979.687 | 7961.780 |
| 15.0 | 8140.617 | 8051.495 | 7994.629 | 7958.557 | 7939.527 |
| 15.5 | 8122.035 | 8031.374 | 7972.120 | 7936.417 | 7916.361 |
| 16.0 | 8102.781 | 8010.918 | 7949.852 | 7914.726 | 7893.483 |
| 16.5 | 8082.565 | 7989.579 | 7926.156 | 7891.816 | 7869.467 |
| 17.0 | 8062.124 | 7967.375 | 7902.509 | 7869.515 | 7845.211 |
| 17.5 | 8040.930 | 7944.513 | 7877.676 | 7846.029 | 7820.666 |
| 18.0 | 8019.174 | 7921.876 | 7852.970 | 7822.125 | 7796.474 |
| 18.5 | 7997.515 | 7898.630 | 7828.281 | 7798.846 | 7771.608 |
| 19.0 | 7975.583 | 7873.491 | 7802.117 | 7774.766 | 7746.374 |
| 19.5 | 7952.032 | 7848.497 | 7776.145 | 7750.173 | 7720.674 |
| 20.0 | 7927.551 | 7823.087 | 7749.131 | 7724.891 | 7694.815 |
| 20.5 | 7902.461 | 7797.323 | 7722.518 | 7699.400 | 7667.881 |
| 21.0 | 7876.890 | 7769.941 | 7693.997 | 7672.803 | 7640.178 |
| 21.5 | 7852.153 | 7742.911 | 7666.198 | 7647.120 | 7613.276 |
| 22.0 | 7824.578 | 7714.935 | 7637.116 | 7619.801 | 7585.268 |
| 22.5 | 7798.205 | 7686.927 | 7608.162 | 7592.835 | 7557.260 |
| 23.0 | 7770.983 | 7658.150 | 7578.759 | 7565.677 | 7529.012 |
| 23.5 | 7742.285 | 7628.090 | 7548.042 | 7537.172 | 7499.417 |
| 24.0 | 7714.518 | 7597.917 | 7518.126 | 7508.779 | 7470.303 |
| 24.5 | 7684.634 | 7566.238 | 7487.056 | 7479.425 | 7439.377 |
| 25.0 | 7654.446 | 7534.687 | 7455.345 | 7450.327 | 7409.237 |
| 25.5 | 7623.969 | 7502.046 | 7423.072 | 7419.754 | 7377.622 |
| 26.0 | 7592.707 | 7468.988 | 7391.377 | 7389.533 | 7346.055 |
| 26.5 | 7560.210 | 7435.225 | 7357.918 | 7357.790 | 7313.397 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 27.0 | 7528.066 | 7401.301 | 7324.459 | 7326.672 | 7281.061 |
| 27.5 | 7494.848 | 7367.073 | 7291.065 | 7294.303 | 7248.548 |
| 28.0 | 7460.234 | 7331.161 | 7257.317 | 7261.261 | 7214.608 |
| 28.5 | 7425.092 | 7295.442 | 7222.785 | 7227.931 | 7180.348 |
| 29.0 | 7387.000 | 7258.632 | 7186.761 | 7193.686 | 7145.703 |
| 29.5 | 7348.732 | 7221.646 | 7151.266 | 7159.105 | 7110.769 |
| 30.0 | 7307.626 | 7183.378 | 7114.376 | 7123.546 | 7073.992 |
| 30.5 | 7266.873 | 7144.452 | 7077.679 | 7087.715 | 7037.342 |
| 31.0 | 7224.548 | 7103.891 | 7039.395 | 7050.922 | 6999.795 |
| 31.5 | 7182.945 | 7062.913 | 7002.072 | 7014.064 | 6962.409 |
| 32.0 | 7140.893 | 7021.006 | 6964.156 | 6976.870 | 6924.653 |
| 32.5 | 7096.997 | 6976.934 | 6924.718 | 6938.088 | 6884.974 |
| 33.0 | 7054.545 | 6932.766 | 6885.728 | 6899.499 | 6846.097 |
| 33.5 | 7010.216 | 6886.882 | 6845.039 | 6859.467 | 6805.632 |
| 34.0 | 6968.693 | 6841.255 | 6804.574 | 6819.147 | 6764.574 |
| 34.5 | 6926.000 | 6795.387 | 6763.179 | 6777.640 | 6722.586 |
| 35.0 | 6883.195 | 6748.494 | 6721.640 | 6735.556 | 6679.540 |
| 35.5 | 6840.678 | 6703.171 | 6680.101 | 6693.055 | 6637.184 |
| 36.0 | 6797.696 | 6657.256 | 6637.617 | 6649.721 | 6593.384 |
| 36.5 | 6754.073 | 6611.741 | 6595.036 | 6606.931 | 6549.409 |
| 37.0 | 6709.183 | 6564.350 | 6550.932 | 6561.913 | 6503.268 |
| 37.5 | 6664.518 | 6518.210 | 6506.363 | 6517.008 | 6457.946 |
| 38.0 | 6616.711 | 6471.525 | 6460.864 | 6470.659 | 6411.020 |
| 38.5 | 6568.871 | 6425.000 | 6415.557 | 6424.086 | 6364.207 |
| 39.0 | 6517.088 | 6376.535 | 6369.016 | 6375.926 | 6316.271 |
| 39.5 | 6464.808 | 6329.161 | 6322.027 | 6328.760 | 6268.368 |
| 40.0 | 6409.754 | 6279.798 | 6273.065 | 6279.558 | 6218.893 |
| 40.5 | 6355.806 | 6230.404 | 6224.472 | 6231.173 | 6168.713 |
| 41.0 | 6302.115 | 6180.576 | 6175.109 | 6181.506 | 6118.965 |
| 41.5 | 6246.676 | 6127.751 | 6124.208 | 6130.364 | 6066.108 |
| 42.0 | 6192.135 | 6075.230 | 6073.611 | 6079.783 | 6014.341 |
| 42.5 | 6136.841 | 6021.523 | 6021.138 | 6026.413 | 5960.697 |
| 43.0 | 6083.839 | 5968.024 | 5969.739 | 5974.164 | 5908.674 |
| 43.5 | 6029.731 | 5912.666 | 5915.968 | 5920.265 | 5854.389 |
| 44.0 | 5976.729 | 5858.365 | 5862.004 | 5866.638 | 5799.704 |
| 44.5 | 5922.221 | 5800.939 | 5807.624 | 5810.943 | 5744.522 |
| 45.0 | 5868.610 | 5745.308 | 5753.772 | 5755.776 | 5688.763 |
| 45.5 | 5814.245 | 5690.141 | 5699.456 | 5700.979 | 5633.068 |
| 46.0 | 5756.626 | 5631.929 | 5642.735 | 5643.472 | 5574.358 |
| 46.5 | 5697.789 | 5576.042 | 5587.905 | 5587.104 | 5516.948 |
| 47.0 | 5635.232 | 5517.284 | 5530.928 | 5528.346 | 5458.126 |
| 47.5 | 5573.268 | 5460.259 | 5474.222 | 5470.776 | 5399.738 |
| 48.0 | 5509.765 | 5401.646 | 5416.347 | 5410.848 | 5339.810 |
| 48.5 | 5447.497 | 5343.289 | 5358.279 | 5351.898 | 5281.758 |
| 49.0 | 5382.632 | 5282.512 | 5298.720 | 5290.207 | 5222.552 |
| 49.5 | 5321.710 | 5222.167 | 5239.466 | 5229.815 | 5161.342 |
| 50.0 | 5261.109 | 5162.496 | 5178.913 | 5169.310 | 5100.292 |
| 50.5 | 5199.338 | 5100.148 | 5116.885 | 5106.048 | 5039.242 |
| 51.0 | 5139.314 | 5039.242 | 5055.787 | 5043.587 | 4978.080 |
| 51.5 | 5076.420 | 4976.349 | 4991.916 | 4979.603 | 4915.924 |
| 52.0 | 5014.585 | 4915.315 | 4929.615 | 4916.581 | 4854.361 |
| 52.5 | 4947.683 | 4852.341 | 4864.638 | 4850.898 | 4791.452 |
| 53.0 | 4879.964 | 4790.730 | 4800.606 | 4786.658 | 4729.696 |
| 53.5 | 4809.680 | 4726.730 | 4733.913 | 4720.286 | 4664.494 |
| 54.0 | 4741.512 | 4663.500 | 4668.166 | 4655.051 | 4601.408 |
| 54.5 | 4672.831 | 4599.661 | 4602.258 | 4589.737 | 4538.002 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 55.0 | 4604.727 | 4532.968 | 4534.667 | 4522.146 | 4471.437 |
| 55.5 | 4539.493 | 4465.762 | 4467.782 | 4455.934 | 4405.898 |
| 56.0 | 4473.746 | 4396.696 | 4399.373 | 4387.189 | 4338.291 |
| 56.5 | 4407.774 | 4328.832 | 4331.686 | 4319.902 | 4272.576 |
| 57.0 | 4339.766 | 4259.670 | 4262.299 | 4250.917 | 4203.093 |
| 57.5 | 4267.382 | 4191.999 | 4193.939 | 4182.123 | 4134.733 |
| 58.0 | 4192.913 | 4123.847 | 4124.360 | 4111.326 | 4065.795 |
| 58.5 | 4120.256 | 4056.096 | 4056.561 | 4040.882 | 3996.585 |
| 59.0 | 4048.176 | 3988.729 | 3987.094 | 3970.806 | 3925.660 |
| 59.5 | 3976.705 | 3920.080 | 3916.457 | 3899.062 | 3854.718 |
| 60.0 | 3908.409 | 3851.127 | 3846.558 | 3826.934 | 3782.702 |
| 60.5 | 3837.403 | 3778.422 | 3774.750 | 3752.770 | 3709.869 |
| 61.0 | 3763.977 | 3706.326 | 3703.600 | 3679.616 | 3637.965 |
| 61.5 | 3687.648 | 3630.366 | 3629.901 | 3604.635 | 3563.080 |
| 62.0 | 3611.448 | 3554.727 | 3558.318 | 3529.525 | 3490.663 |
| 62.5 | 3534.719 | 3478.495 | 3483.321 | 3452.138 | 3412.555 |
| 63.0 | 3462.703 | 3404.091 | 3408.772 | 3377.061 | 3325.117 |
| 63.5 | 3390.463 | 3330.183 | 3334.143 | 3301.053 | 3197.759 |
| 64.0 | 3315.434 | 3257.382 | 3259.033 | 3223.971 | 3006.898 |
| 64.5 | 3236.636 | 3184.003 | 3183.538 | 3141.150 | 2783.444 |
| 65.0 | 3156.492 | 3107.466 | 3107.242 | 3034.505 | 2538.491 |
| 65.5 | 3080.276 | 3030.914 | 3029.856 | 2874.874 | 2316.800 |
| 66.0 | 3005.856 | 2948.333 | 2951.058 | 2661.985 | 2117.763 |
| 66.5 | 2927.908 | 2870.642 | 2872.485 | 2436.159 | 1941.587 |
| 67.0 | 2847.139 | 2793.127 | 2792.309 | 2212.640 | 1776.490 |
| 67.5 | 2766.065 | 2717.568 | 2715.564 | 2009.114 | 1636.370 |
| 68.0 | 2691.837 | 2639.669 | 2639.605 | 1832.009 | 1515.024 |
| 68.5 | 2612.494 | 2561.032 | 2560.390 | 1662.823 | 1404.050 |
| 69.0 | 2532.399 | 2484.479 | 2479.605 | 1524.627 | 1315.602 |
| 69.5 | 2450.299 | 2404.255 | 2396.415 | 1401.966 | 1253.430 |
| 70.0 | 2373.938 | 2324.624 | 2310.580 | 1294.648 | 1206.264 |
| 70.5 | 2291.871 | 2245.955 | 2186.043 | 1207.370 | 1163.522 |
| 71.0 | 2211.614 | 2168.857 | 2001.755 | 1146.512 | 1111.306 |
| 71.5 | 2132.288 | 2084.946 | 1800.169 | 1099.090 | 1042.032 |
| 72.0 | 2052.737 | 2008.136 | 1615.849 | 1053.928 | 879.467 |
| 72.5 | 1972.754 | 1930.686 | 1437.237 | 1000.012 | 716.406 |
| 73.0 | 1894.036 | 1850.814 | 1261.077 | 895.227 | 606.218 |
| 73.5 | 1813.828 | 1775.672 | 1118.344 | 723.524 | 514.547 |
| 74.0 | 1734.678 | 1695.095 | 1003.299 | 597.465 | 362.115 |
| 74.5 | 1656.234 | 1620.627 | 904.349 | 509.721 | 261.017 |
| 75.0 | 1577.677 | 1541.220 | 827.636 | 380.664 | 182.236 |
| 75.5 | 1500.210 | 1467.313 | 772.037 | 256.496 | 118.252 |
| 76.0 | 1422.776 | 1389.814 | 725.127 | 177.827 | 74.453 |
| 76.5 | 1346.127 | 1315.810 | 669.753 | 117.963 | 43.880 |
| 77.0 | 1272.973 | 1242.945 | 545.216 | 70.781 | 35.687 |
| 77.5 | 1197.847 | 1167.931 | 431.084 | 42.950 | 34.308 |
| 78.0 | 1125.671 | 1094.954 | 352.704 | 34.533 | 33.026 |
| 78.5 | 1052.276 | 1021.046 | 248.352 | 32.705 | 31.807 |
| 79.0 | 981.126 | 932.421 | 151.871 | 31.278 | 30.653 |
| 79.5 | 909.816 | 796.710 | 97.731 | 29.884 | 29.339 |
| 80.0 | 841.407 | 679.308 | 55.839 | 28.729 | 28.345 |
| 80.5 | 773.464 | 562.932 | 36.329 | 27.463 | 27.030 |
| 81.0 | 708.967 | 447.421 | 29.820 | 26.357 | 26.228 |
| 81.5 | 646.170 | 369.746 | 27.751 | 25.282 | 25.138 |
| 82.0 | 584.575 | 315.061 | 26.148 | 24.192 | 24.016 |
| 82.5 | 524.824 | 266.532 | 24.609 | 23.134 | 22.958 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|---------|---------|--------|--------|--------|
| 83.0 | 467.862 | 194.196 | 22.990 | 22.204 | 21.932 |
| 83.5 | 413.225 | 142.877 | 21.515 | 21.018 | 20.697 |
| 84.0 | 360.319 | 85.851 | 20.184 | 19.687 | 19.399 |
| 84.5 | 311.582 | 45.146 | 18.886 | 18.293 | 17.747 |
| 85.0 | 264.464 | 30.188 | 17.523 | 16.818 | 16.529 |
| 85.5 | 221.578 | 24.369 | 16.032 | 15.407 | 15.166 |
| 86.0 | 181.963 | 21.932 | 14.541 | 13.900 | 13.515 |
| 86.5 | 143.454 | 19.495 | 13.082 | 12.184 | 11.655 |
| 87.0 | 107.719 | 17.315 | 11.639 | 10.405 | 9.908 |
| 87.5 | 72.705 | 15.278 | 9.844 | 8.609 | 8.144 |
| 88.0 | 43.383 | 13.563 | 8.465 | 7.230 | 6.733 |
| 88.5 | 22.942 | 11.767 | 7.070 | 5.707 | 5.242 |
| 89.0 | 14.798 | 10.341 | 5.836 | 4.473 | 4.152 |
| 89.5 | 5.755 | 9.363 | 4.890 | 3.383 | 2.934 |
| 90.0 | 0.770 | 8.240 | 3.976 | 2.549 | 1.860 |
| 90.5 | 0.721 | 7.118 | 3.142 | 1.764 | 1.283 |
| 91.0 | 0.609 | 5.595 | 2.517 | 1.202 | 0.657 |
| 91.5 | 0.593 | 4.489 | 2.309 | 1.042 | 0.673 |
| 92.0 | 0.689 | 3.751 | 1.940 | 0.962 | 0.401 |
| 92.5 | 0.609 | 3.575 | 1.796 | 0.946 | 0.481 |
| 93.0 | 0.721 | 3.463 | 1.651 | 0.818 | 0.417 |
| 93.5 | 0.914 | 3.238 | 1.667 | 0.866 | 0.433 |
| 94.0 | 1.074 | 3.110 | 1.539 | 0.946 | 0.497 |
| 94.5 | 1.459 | 2.838 | 1.651 | 0.898 | 0.673 |
| 95.0 | 1.619 | 2.806 | 1.715 | 0.818 | 0.561 |
| 95.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 96.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 96.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 97.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 97.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 98.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 98.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 99.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 99.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 101.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 101.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 103.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 103.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 104.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 104.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 106.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 106.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 108.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 108.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 109.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 109.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 110.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 110.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 111.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 111.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBIA48-LED175DMV35.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 139.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 139.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 149.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 149.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 166.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 166.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBIA48-LED175DMV35.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 167.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 167.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBIA48-LED175DMV35.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|----------|-------|--------|
| 0-20 | 3051.03 | N.A. | 13.10 |
| 0-30 | 6506.03 | N.A. | 28.00 |
| 0-40 | 10728.14 | N.A. | 46.10 |
| 0-60 | 19214.27 | N.A. | 82.60 |
| 0-80 | 23180.29 | N.A. | 99.60 |
| 0-90 | 23274.51 | N.A. | 100.00 |
| 10-90 | 22485.36 | N.A. | 96.60 |
| 20-40 | 7677.1 | N.A. | 33.00 |
| 20-50 | 12116.81 | N.A. | 52.10 |
| 40-70 | 11400.2 | N.A. | 49.00 |
| 60-80 | 3966.02 | N.A. | 17.00 |
| 70-80 | 1051.95 | N.A. | 4.50 |
| 80-90 | 94.22 | N.A. | 0.40 |
| 90-110 | 1.17 | N.A. | 0.00 |
| 90-120 | 1.17 | N.A. | 0.00 |
| 90-130 | 1.17 | N.A. | 0.00 |
| 90-150 | 1.17 | N.A. | 0.00 |
| 90-180 | 1.17 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 23275.69 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 789.16 |
| 10-20 | 2261.88 |
| 20-30 | 3455.00 |
| 30-40 | 4222.11 |
| 40-50 | 4439.71 |
| 50-60 | 4046.42 |
| 60-70 | 2914.07 |
| 70-80 | 1051.95 |
| 80-90 | 94.22 |
| 90-100 | 1.17 |
| 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 |

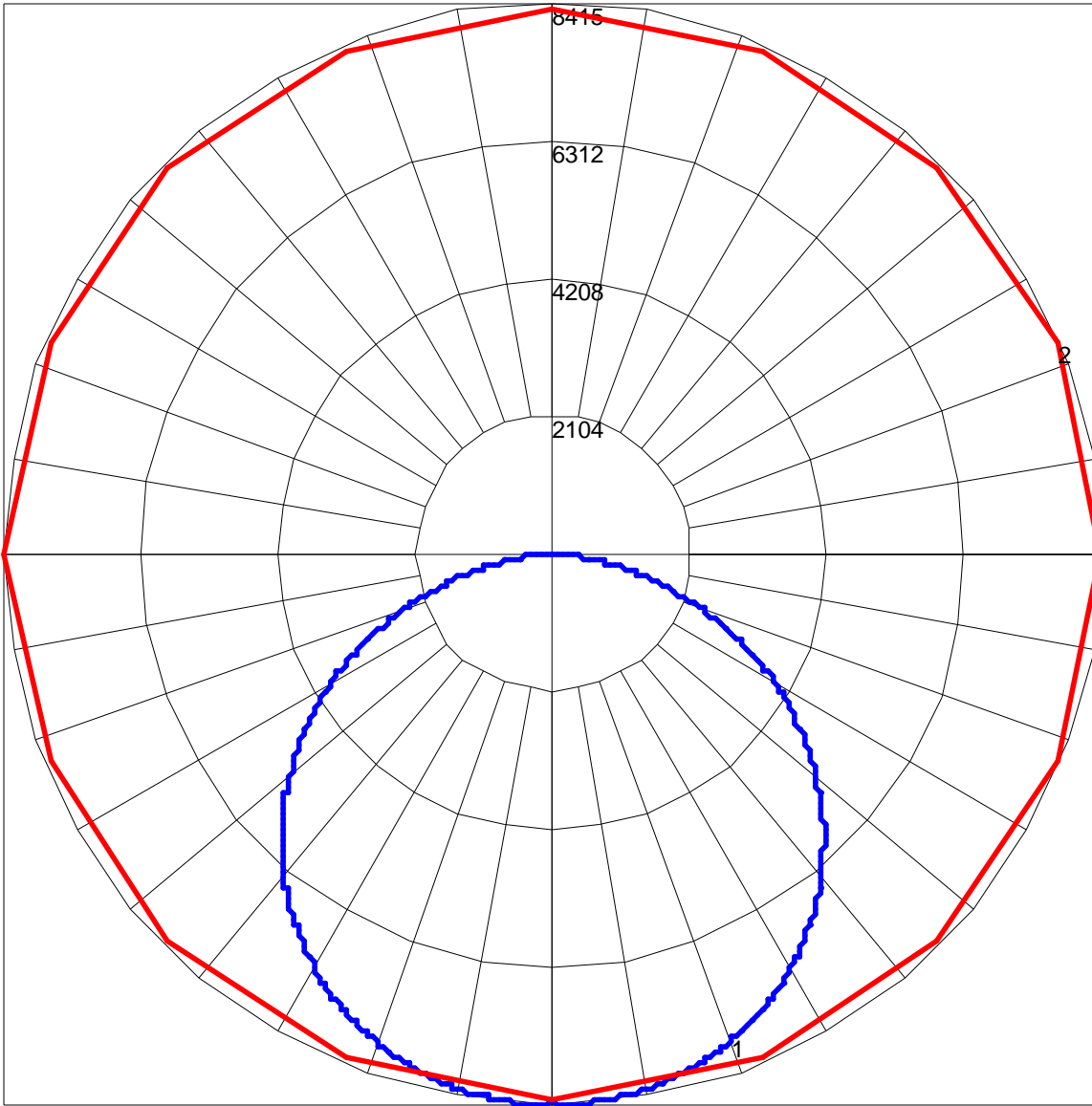
IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBIA48-LED175DMV35.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC RW | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 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 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 88 | 86 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | 83 | 79 | 76 | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 76 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 83 | 72 | 63 | 57 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | 66 | 60 | 55 | 63 | 58 | 54 | 52 |
| 5 | 77 | 64 | 55 | 49 | 75 | 63 | 55 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 45 |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | 53 | 47 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 36 | 34 |
| 8 | 61 | 48 | 39 | 33 | 59 | 47 | 39 | 33 | 46 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 35 | 30 | 56 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 28 |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 27 | 25 |

POLAR GRAPH



Maximum Candela = 8415.357 Located At Horizontal Angle = 0, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)