



**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] LLIA000974-006A  
 [TESTLAB] LightLab International Allentown, LLC  
 [MANUFAC] Mobern Lighting Co., 8200 Stayton Drive, Jessup, MD 20794, USA  
 [LUMCAT] HBIA24-LED175DMVFR50  
 [LUMINAIRE] Catalog Number: HBIA24-LED175DMVFR50  
 [MORE] Pendant/surface mounted, formed steel housing, formed aluminum LED mounting plates, frosted plastic enclosure.  
 [MORE] 624 white LEDs, four ULT Everline M18CC850D156N2S50C LED boards with 156 LEDs each.  
 [MORE] Two ULT Everline D23CC90UNVTW-F LED drivers each set at 2040mA.  
 [MORE] 120.0Vac, 60.00Hz, 1.457A, 174.3W, 0.997PF, 5.6%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 created by LightLab/LSA Report program version 3.820a.  
 [DATE] This file extrapolated from LLIA000974-006A  
 [ISSUE DATE] Thursday, April 26, 2018 3:06:44 PM

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	19835
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	174.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.58 m
Luminous Width (90-270)	0.48 m
Luminous Height	0.02 m

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	19794	20512	22352
55	18154	19387	22089
65	16000	18759	22855
75	12515	19670	25207
85	5573	20516	29158

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	6569.556	6569.556	6569.556	6569.556	6569.556
0.5	6596.256	6583.302	6533.306	6564.516	6594.736
1.0	6594.976	6581.948	6531.952	6563.537	6594.361
1.5	6593.122	6580.334	6530.442	6562.183	6593.309
2.0	6590.196	6577.783	6528.224	6560.444	6592.008
2.5	6586.842	6574.409	6525.464	6558.174	6590.133
3.0	6582.438	6570.649	6522.184	6555.674	6587.759
3.5	6577.231	6565.901	6518.372	6552.529	6585.135
4.0	6571.534	6560.558	6513.936	6548.853	6581.823
4.5	6565.026	6554.560	6508.823	6544.698	6578.210
5.0	6557.684	6548.010	6503.241	6540.033	6574.429
5.5	6549.447	6540.345	6496.920	6534.972	6569.649
6.0	6540.699	6532.379	6489.943	6529.505	6564.818
6.5	6530.879	6523.381	6482.289	6523.277	6559.444
7.0	6520.382	6513.895	6474.385	6516.852	6553.456
7.5	6509.281	6503.096	6465.690	6509.562	6546.948
8.0	6497.566	6492.411	6456.328	6502.002	6540.429
8.5	6484.715	6480.331	6446.320	6493.682	6532.962
9.0	6471.823	6468.033	6435.865	6485.444	6525.714
9.5	6457.640	6455.172	6424.743	6476.770	6518.404
10.0	6443.477	6440.936	6412.819	6467.262	6510.073
10.5	6427.742	6426.617	6400.833	6457.588	6501.138
11.0	6411.892	6411.070	6387.837	6446.893	6491.557
11.5	6395.293	6395.251	6374.695	6436.010	6481.789
12.0	6377.277	6378.444	6360.824	6424.399	6471.032
12.5	6359.563	6361.209	6346.526	6412.455	6459.670
13.0	6340.621	6342.985	6331.603	6399.063	6447.580
13.5	6321.533	6324.553	6316.138	6385.566	6435.094
14.0	6301.830	6305.933	6300.278	6371.602	6422.337
14.5	6280.794	6285.626	6283.200	6356.242	6408.727
15.0	6259.623	6265.038	6265.788	6340.933	6394.939
15.5	6237.150	6243.451	6247.085	6324.917	6380.578
16.0	6213.938	6221.749	6228.372	6308.818	6366.020
16.5	6190.081	6198.589	6208.492	6291.375	6350.493
17.0	6166.035	6175.564	6188.487	6274.307	6334.685
17.5	6140.834	6151.362	6167.452	6256.322	6317.846
18.0	6115.456	6127.255	6146.301	6238.077	6300.945
18.5	6089.588	6102.585	6124.599	6219.010	6283.554
19.0	6062.731	6077.196	6101.814	6199.651	6265.642
19.5	6035.177	6050.995	6078.852	6179.615	6246.856
20.0	6007.320	6024.003	6054.786	6158.746	6227.549
20.5	5978.953	5996.958	6030.886	6137.825	6207.846
21.0	5949.201	5968.977	6005.779	6115.831	6186.925
21.5	5920.012	5940.714	5980.848	6093.629	6165.744
22.0	5889.281	5911.410	5954.627	6070.250	6143.583
22.5	5858.665	5882.376	5928.728	6046.923	6121.590
23.0	5827.975	5852.937	5902.246	6023.274	6098.836
23.5	5795.849	5821.738	5874.566	5998.208	6074.728
24.0	5763.306	5791.017	5846.970	5972.903	6050.266
24.5	5730.191	5758.755	5818.009	5946.254	6024.326
25.0	5696.836	5726.629	5789.091	5919.574	5998.500
25.5	5662.512	5693.420	5759.130	5891.561	5971.497
26.0	5628.074	5660.190	5729.316	5863.965	5944.130
26.5	5593.084	5626.179	5698.231	5835.161	5916.002

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**CANDELA TABULATION - (Cont.)**

27.0	5557.302	5592.272	5667.261	5805.992	5888.312
27.5	5521.729	5557.844	5635.978	5776.542	5860.539
28.0	5484.979	5522.198	5603.321	5746.144	5830.620
28.5	5447.886	5486.687	5570.590	5715.257	5800.431
29.0	5410.115	5449.552	5536.735	5683.204	5769.471
29.5	5372.230	5413.239	5502.932	5651.828	5738.345
30.0	5333.231	5375.261	5467.963	5619.087	5705.958
30.5	5294.867	5338.021	5433.234	5586.575	5674.352
31.0	5254.993	5299.084	5397.233	5552.512	5641.039
31.5	5215.723	5261.001	5361.504	5518.907	5608.413
32.0	5176.338	5222.252	5325.577	5485.031	5575.131
32.5	5135.693	5182.253	5287.869	5449.791	5540.391
33.0	5094.986	5142.608	5250.567	5414.583	5506.088
33.5	5052.915	5101.932	5211.911	5378.437	5470.796
34.0	5011.447	5061.027	5173.662	5342.843	5435.431
34.5	4969.605	5019.955	5134.631	5305.884	5399.764
35.0	4926.732	4978.342	5094.965	5268.864	5363.014
35.5	4884.525	4936.396	5055.820	5232.416	5326.701
36.0	4841.767	4894.460	5015.800	5194.906	5289.670
36.5	4799.091	4852.649	4976.093	5157.729	5252.691
37.0	4754.687	4808.984	4934.521	5118.906	5214.223
37.5	4711.054	4766.205	4893.700	5080.917	5176.286
38.0	4666.035	4721.988	4851.493	5041.366	5137.370
38.5	4621.965	4678.771	4810.099	5002.679	5099.027
39.0	4576.394	4633.972	4767.225	4962.659	5059.194
39.5	4531.553	4590.036	4725.196	4923.483	5020.101
40.0	4485.785	4544.633	4681.833	4882.661	4979.811
40.5	4440.506	4500.020	4638.866	4842.871	4940.634
41.0	4395.258	4455.231	4595.962	4803.017	4900.927
41.5	4348.376	4408.911	4552.005	4761.571	4859.605
42.0	4302.597	4363.445	4508.237	4720.780	4819.440
42.5	4255.257	4316.375	4463.843	4679.365	4777.920
43.0	4208.832	4270.294	4420.064	4638.450	4737.234
43.5	4161.190	4223.193	4374.796	4596.003	4695.610
44.0	4114.620	4176.498	4330.506	4554.963	4654.508
44.5	4066.540	4128.459	4284.842	4512.444	4612.093
45.0	4019.178	4081.598	4240.251	4470.747	4570.896
45.5	3971.983	4034.497	4195.565	4428.863	4529.189
46.0	3923.122	3985.636	4149.391	4385.917	4486.201
46.5	3875.469	3938.087	4104.237	4343.461	4444.047
47.0	3826.004	3889.215	4057.855	4300.036	4400.840
47.5	3778.018	3840.896	4012.492	4257.235	4358.675
48.0	3728.865	3791.535	3965.891	4213.164	4315.927
48.5	3680.066	3743.059	3920.081	4170.395	4273.564
49.0	3630.049	3693.188	3873.282	4126.210	4230.233
49.5	3581.063	3644.451	3827.472	4083.129	4188.265
50.0	3531.671	3595.549	3781.423	4040.162	4146.121
50.5	3482.393	3545.063	3734.926	3995.831	4103.477
51.0	3432.647	3496.108	3688.835	3952.791	4061.249
51.5	3382.057	3445.477	3641.733	3909.303	4018.397
52.0	3332.728	3396.272	3596.153	3866.555	3976.711
52.5	3281.940	3345.547	3549.104	3822.838	3934.025
53.0	3232.423	3296.165	3503.429	3780.340	3892.537
53.5	3181.146	3245.263	3456.432	3736.811	3849.862
54.0	3131.587	3195.579	3410.893	3694.500	3808.478
54.5	3081.653	3145.989	3365.416	3652.595	3766.937

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**CANDELA TABULATION - (Cont.)**

55.0	3030.345	3094.879	3318.690	3609.566	3724.335
55.5	2980.359	3045.174	3273.161	3567.775	3683.461
56.0	2929.030	2994.116	3226.758	3525.038	3641.234
56.5	2878.951	2944.401	3181.729	3483.341	3600.318
57.0	2827.757	2893.572	3136.221	3440.655	3558.122
57.5	2777.115	2843.784	3090.953	3399.375	3517.331
58.0	2725.526	2792.705	3045.310	3357.096	3476.052
58.5	2675.217	2743.114	3001.020	3315.660	3435.157
59.0	2624.523	2693.420	2956.804	3274.661	3394.366
59.5	2573.454	2643.008	2912.827	3233.058	3353.482
60.0	2522.708	2593.522	2869.204	3192.278	3313.317
60.5	2471.004	2542.942	2825.143	3150.707	3272.297
61.0	2420.717	2493.738	2782.447	3110.395	3232.590
61.5	2368.825	2443.367	2738.886	3069.344	3191.862
62.0	2318.152	2394.630	2696.732	3029.491	3152.331
62.5	2265.761	2343.999	2653.234	2988.409	3111.343
63.0	2215.827	2295.700	2612.110	2949.004	3072.250
63.5	2164.863	2246.985	2570.414	2909.442	3033.053
64.0	2114.398	2198.551	2529.425	2870.266	2994.355
64.5	2063.121	2149.940	2487.979	2830.787	2955.148
65.0	2011.750	2101.672	2446.980	2792.101	2916.128
65.5	1960.858	2053.675	2406.481	2753.424	2877.045
66.0	1909.727	2005.627	2366.014	2714.393	2838.264
66.5	1859.033	1958.609	2326.233	2676.581	2799.994
67.0	1807.277	1910.779	2286.005	2637.665	2760.745
67.5	1756.927	1864.302	2247.058	2599.843	2722.714
68.0	1706.972	1818.607	2208.610	2562.728	2685.016
68.5	1655.435	1771.808	2169.340	2524.614	2645.788
69.0	1605.532	1726.675	2131.403	2487.354	2607.601
69.5	1554.224	1680.667	2092.696	2449.198	2567.956
70.0	1504.467	1636.315	2055.227	2411.761	2529.123
70.5	1453.784	1591.172	2017.259	2373.355	2488.583
71.0	1403.933	1547.809	1980.186	2335.439	2447.834
71.5	1353.042	1503.603	1942.457	2296.148	2404.138
72.0	1303.795	1461.292	1905.926	2256.982	2360.119
72.5	1254.278	1419.700	1869.832	2216.744	2315.184
73.0	1205.594	1377.326	1832.790	2174.506	2269.926
73.5	1156.587	1336.734	1796.853	2131.518	2225.127
74.0	1107.060	1295.506	1759.822	2086.843	2178.952
74.5	1059.063	1256.017	1723.540	2043.564	2133.444
75.0	1010.160	1215.935	1686.540	1998.837	2084.667
75.5	962.809	1177.363	1649.884	1954.495	2034.514
76.0	914.500	1138.186	1611.874	1906.936	1981.915
76.5	868.159	1100.749	1574.093	1858.918	1930.242
77.0	822.380	1063.874	1535.511	1809.797	1878.392
77.5	775.904	1026.426	1494.845	1758.624	1824.876
78.0	730.761	990.468	1454.523	1708.097	1772.245
78.5	685.315	954.218	1412.400	1656.195	1718.219
79.0	641.619	918.926	1369.891	1604.928	1665.578
79.5	597.611	883.405	1325.112	1552.787	1612.280
80.0	555.394	848.946	1279.813	1501.072	1558.681
80.5	513.041	814.029	1232.461	1448.265	1504.603
81.0	472.220	779.934	1185.183	1396.758	1452.191
81.5	432.294	746.215	1138.061	1344.888	1400.101
82.0	393.669	712.203	1088.981	1292.975	1347.585
82.5	355.753	678.182	1040.610	1240.959	1295.506

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**CANDELA TABULATION - (Cont.)**

83.0	318.430	643.098	990.905	1188.016	1242.615
83.5	283.388	607.056	941.534	1136.458	1191.129
84.0	248.762	569.452	890.798	1083.316	1139.384
84.5	216.532	531.307	840.490	1031.258	1086.513
85.0	185.322	490.735	788.442	976.451	1029.196
85.5	156.705	450.143	737.186	919.259	966.662
86.0	130.109	409.123	685.180	854.965	896.661
86.5	104.772	365.792	628.248	780.642	818.496
87.0	82.372	322.741	565.839	704.820	740.383
87.5	62.003	277.150	496.556	625.697	659.916
88.0	44.550	230.080	426.733	548.958	582.407
88.5	29.492	181.021	356.096	472.126	504.971
89.0	17.464	136.701	293.448	402.135	433.012
89.5	8.789	103.575	240.577	341.590	371.717
90.0	3.457	81.935	208.753	302.258	329.781
90.5	0.896	71.313	192.768	282.357	307.350
91.0	0.448	66.460	184.187	270.912	296.093
91.5	0.489	62.513	178.147	263.279	288.616
92.0	0.635	58.681	172.368	256.260	281.524
92.5	0.562	55.224	167.161	249.918	274.943
93.0	0.677	52.006	162.037	243.649	268.278
93.5	0.802	48.934	159.455	237.839	261.998
94.0	1.031	45.904	161.069	232.830	256.552
94.5	1.156	42.821	164.297	231.632	253.615
95.0	1.208	39.812	169.660	235.943	255.500
95.5	1.510	36.917	175.398	246.097	263.894
96.0	1.760	34.219	175.825	258.843	278.129
96.5	2.072	31.741	168.754	273.308	296.186
97.0	2.364	29.669	158.340	288.053	315.691
97.5	2.833	28.034	144.240	298.269	335.654
98.0	3.197	26.888	129.796	297.530	350.640
98.5	3.697	26.253	117.675	283.076	354.128
99.0	3.916	25.878	109.677	261.800	342.715
99.5	4.155	25.409	103.033	237.568	319.888
100.0	4.280	24.618	97.889	211.627	290.209
100.5	4.322	23.400	93.286	186.874	259.561
101.0	4.520	21.536	88.902	166.223	227.935
101.5	4.780	19.494	84.913	153.644	198.787
102.0	4.978	17.464	81.206	145.854	176.543
102.5	5.186	15.746	77.853	140.262	163.537
103.0	5.498	13.954	74.802	135.274	156.216
103.5	5.728	12.434	72.500	130.682	151.217
104.0	6.102	11.216	71.188	126.422	146.542
104.5	6.332	10.893	70.751	122.049	141.918
105.0	6.550	10.153	71.063	118.071	137.555
105.5	6.904	9.341	71.823	114.249	133.347
106.0	7.238	8.550	72.823	110.541	129.307
106.5	7.519	8.123	73.937	107.292	125.454
107.0	7.831	7.727	75.020	104.710	121.653
107.5	8.227	7.487	75.728	102.835	118.289
108.0	8.529	7.415	75.406	101.846	115.530
108.5	8.893	7.362	73.885	101.773	113.353
109.0	9.299	7.383	70.667	102.460	111.947
109.5	9.591	7.352	66.783	103.606	111.541
110.0	9.987	7.404	62.409	105.210	111.926
110.5	10.237	7.498	58.036	106.824	112.968

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**CANDELA TABULATION - (Cont.)**

111.0	10.632	7.592	53.683	108.657	114.603
111.5	10.914	7.664	49.496	110.593	116.508
112.0	11.351	7.758	45.539	112.385	118.456
112.5	11.653	7.925	41.561	113.718	120.528
113.0	12.174	7.998	37.927	113.801	122.642
113.5	12.611	8.196	34.490	111.864	124.850
114.0	12.934	8.310	31.439	108.292	126.506
114.5	13.277	8.393	28.752	103.710	127.589
115.0	13.725	8.570	27.909	98.545	126.152
115.5	14.225	8.706	27.169	92.849	122.705
116.0	14.642	8.883	24.941	87.277	118.456
116.5	15.142	9.050	22.931	81.591	113.228
117.0	15.527	9.195	20.890	76.124	107.501
117.5	16.006	9.393	18.838	70.928	101.450
118.0	16.568	9.674	17.214	65.565	95.192
118.5	16.985	9.799	15.850	60.701	89.214
119.0	17.412	10.060	14.694	55.797	83.237
119.5	17.922	10.268	13.892	51.298	77.509
120.0	18.453	10.601	13.371	47.330	71.834
120.5	18.870	10.778	13.080	43.488	66.523
121.0	19.328	11.153	13.080	41.551	61.482
121.5	19.901	11.393	13.340	40.311	56.734
122.0	20.453	11.757	13.569	38.531	52.412
122.5	20.952	12.017	13.871	36.573	48.320
123.0	21.483	12.299	14.152	33.928	46.310
123.5	22.067	12.726	14.454	31.033	44.550
124.0	22.629	13.090	14.902	28.367	42.727
124.5	23.285	13.579	15.194	25.920	41.176
125.0	23.785	13.923	15.558	23.639	37.875
125.5	24.451	14.329	15.943	21.869	34.605
126.0	25.045	14.756	16.256	20.650	31.731
126.5	25.691	15.225	16.610	19.640	28.908
127.0	26.326	15.589	16.943	18.953	26.576
127.5	26.971	15.912	17.256	18.620	24.483
128.0	27.659	16.412	17.641	18.641	22.900
128.5	28.346	16.766	17.974	18.963	21.629
129.0	28.940	17.162	18.245	19.359	20.859
129.5	29.564	17.568	18.547	19.786	20.567
130.0	30.137	17.953	18.849	20.213	20.421
130.5	30.783	18.339	19.057	20.619	20.671
131.0	31.460	18.713	19.349	21.015	20.994
131.5	31.960	19.088	19.494	21.390	21.411
132.0	32.501	19.432	19.755	21.785	21.806
132.5	33.032	19.984	19.942	22.171	22.108
133.0	33.647	20.557	20.088	22.400	22.400
133.5	34.063	21.286	20.234	22.650	22.796
134.0	34.532	21.962	20.400	22.816	23.150
134.5	35.073	22.660	20.525	22.983	23.400
135.0	35.490	23.368	20.630	23.129	23.577
135.5	35.948	24.139	20.723	23.223	23.816
136.0	36.344	24.993	20.859	23.191	23.993
136.5	36.760	25.753	20.994	23.233	24.024
137.0	37.052	26.492	21.129	23.139	23.962
137.5	37.468	27.201	21.265	23.035	23.972
138.0	37.823	27.773	21.390	22.941	23.889
138.5	38.093	28.211	21.494	22.785	23.889

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**CANDELA TABULATION - (Cont.)**

139.0	38.333	28.575	21.577	22.577	23.691
139.5	38.583	28.804	21.660	22.483	23.535
140.0	38.812	28.940	21.838	22.317	23.358
140.5	39.083	29.096	21.869	22.119	23.098
141.0	39.260	29.127	22.035	22.015	22.941
141.5	39.447	29.106	22.098	21.817	22.681
142.0	39.801	28.992	22.317	21.650	22.442
142.5	40.030	28.888	22.358	21.536	22.212
143.0	40.228	28.794	22.566	21.442	22.015
143.5	40.551	28.679	22.598	21.348	21.942
144.0	40.780	28.544	22.702	21.327	21.806
144.5	40.988	28.471	22.691	21.421	21.660
145.0	41.311	28.419	22.723	21.421	21.577
145.5	41.592	28.419	22.681	21.660	21.702
146.0	41.936	28.429	22.629	21.858	21.733
146.5	42.175	28.492	22.577	22.025	21.744
147.0	42.582	28.544	22.504	22.264	21.838
147.5	42.821	28.669	22.410	22.473	21.910
148.0	43.092	28.877	22.358	22.733	22.202
148.5	43.383	29.002	22.389	22.827	22.275
149.0	43.633	29.117	22.431	23.087	22.389
149.5	43.800	29.356	22.941	23.295	22.577
150.0	44.050	29.637	23.806	23.431	22.827
150.5	44.258	29.950	24.847	23.556	23.129
151.0	44.477	30.221	25.972	23.618	23.327
151.5	44.519	30.606	27.076	23.618	23.535
152.0	44.706	31.074	28.409	23.535	23.629
152.5	44.935	31.616	29.512	23.327	23.764
153.0	45.081	32.085	30.408	23.066	23.733
153.5	45.112	32.616	30.970	22.879	23.743
154.0	45.300	33.168	31.231	22.587	23.452
154.5	45.393	33.720	31.189	22.369	23.243
155.0	45.383	34.240	30.616	22.202	22.816
155.5	45.497	34.761	29.804	22.483	22.629
156.0	45.612	35.313	28.908	23.462	22.421
156.5	45.737	35.854	28.044	24.982	22.160
157.0	45.799	36.563	27.263	26.847	22.358
157.5	45.831	37.166	26.513	28.690	23.233
158.0	45.945	37.750	25.888	30.658	24.795
158.5	45.997	38.312	25.430	32.137	26.836
159.0	45.924	38.770	25.107	32.980	28.690
159.5	45.872	39.343	24.972	33.136	30.897
160.0	45.695	39.832	24.920	32.376	32.366
160.5	45.508	40.301	25.024	31.022	33.063
161.0	45.320	40.728	25.212	29.158	32.991
161.5	44.956	41.113	25.649	27.273	32.012
162.0	44.727	41.551	26.045	25.888	30.418
162.5	44.456	41.894	26.607	25.076	28.252
163.0	43.977	42.186	27.378	24.545	26.420
163.5	43.613	42.405	28.138	24.295	25.430
164.0	43.113	42.623	29.096	24.274	24.722
164.5	42.707	42.759	29.960	24.399	24.472
165.0	42.134	42.863	30.835	24.733	24.201
165.5	41.696	42.915	31.699	25.253	24.389
166.0	41.207	42.967	32.543	25.888	24.712
166.5	40.645	42.936	33.251	26.534	25.118



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**CANDELA TABULATION - (Cont.)**

167.0	40.051	42.821	34.115	27.294	25.857
167.5	39.499	42.675	34.855	28.159	26.690
168.0	38.916	42.540	35.594	29.106	27.690
168.5	38.510	42.457	36.323	30.096	28.815
169.0	37.989	42.217	36.969	31.033	29.846
169.5	37.687	41.967	37.687	32.043	30.700
170.0	37.364	41.624	38.291	33.116	31.408
170.5	37.083	41.353	38.833	34.053	32.189
171.0	36.687	40.947	39.374	34.980	32.762
171.5	36.250	40.520	39.655	35.844	33.324
172.0	35.854	40.124	39.884	36.771	33.876
172.5	35.438	39.624	40.166	37.552	34.355
173.0	34.969	39.239	40.593	38.218	34.855
173.5	34.719	38.770	40.905	38.583	35.813
174.0	34.355	38.364	41.051	38.781	36.698
174.5	34.011	37.677	41.207	38.656	37.583
175.0	33.657	37.104	41.269	38.687	38.114
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 : HBIA24-LED175DMVFR50.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	2398.63	N.A.	12.10
0-30	5079.85	N.A.	25.60
0-40	8283.45	N.A.	41.80
0-60	14577.37	N.A.	73.50
0-80	18705.7	N.A.	94.30
0-90	19461.08	N.A.	98.10
10-90	18839.73	N.A.	95.00
20-40	5884.83	N.A.	29.70
20-50	9180.54	N.A.	46.30
40-70	8724.56	N.A.	44.00
60-80	4128.33	N.A.	20.80
70-80	1697.69	N.A.	8.60
80-90	755.38	N.A.	3.80
90-110	244.31	N.A.	1.20
90-120	292.28	N.A.	1.50
90-130	312.27	N.A.	1.60
90-150	347.21	N.A.	1.80
90-180	373.67	N.A.	1.90
110-180	129.36	N.A.	0.70
0-180	19834.75	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	621.35
10-20	1777.28
20-30	2681.22
30-40	3203.6
40-50	3295.71
50-60	2998.21
60-70	2430.64
70-80	1697.69
80-90	755.38
90-100	166.28
100-110	78.04
110-120	47.97
120-130	19.99
130-140	18.44
140-150	16.50
150-160	14.12
160-170	9.54
170-180	2.80

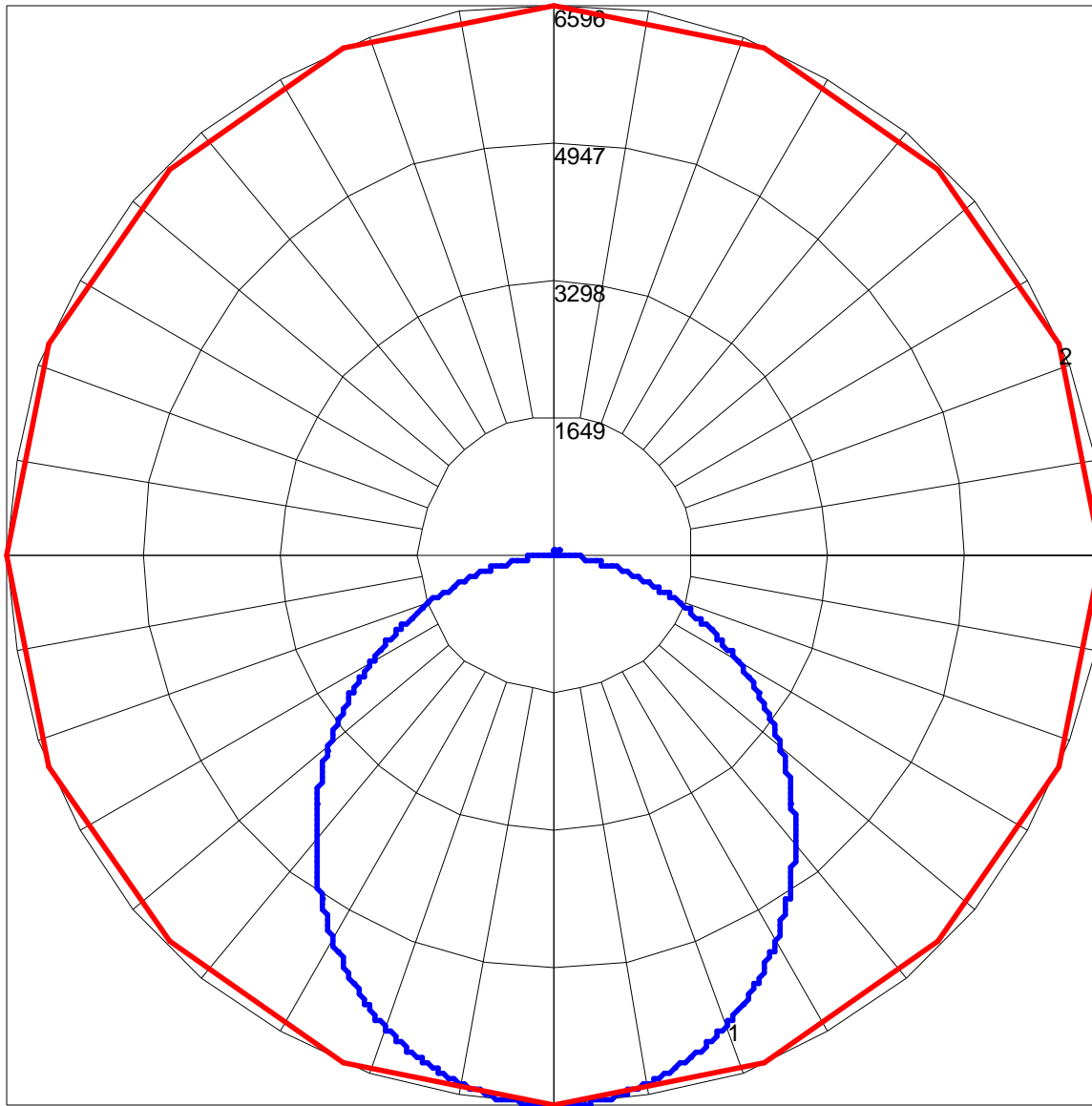
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBIA24-LED175DMVFR50.IES**

**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	110	110	110	105	105	105	100	100	100	98
1	107	102	97	93	104	99	95	91	95	91	88	91	88	85	87	84	82	80
2	97	88	81	75	94	86	80	74	82	77	72	79	74	70	75	72	68	66
3	88	77	69	62	86	76	68	61	72	65	60	69	63	59	66	61	57	55
4	81	68	59	52	78	67	58	52	64	57	51	61	55	50	59	54	49	47
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	53	47	43	40
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35
7	64	50	41	35	62	49	40	34	47	39	34	45	39	34	44	38	33	31
8	59	45	37	31	57	45	36	31	43	36	30	42	35	30	40	34	30	28
9	55	42	33	28	54	41	33	28	40	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

POLAR GRAPH



Maximum Candela = 6596.256 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.)