



IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBL3210-50D.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 1
 [TESTLAB] EVERFINE
 [TESTDATE] 2017-06-29
 [ISSUEDATE] 2017-07-01 08:57:50
 [NEARFIELD]
 [LAMPPOSITION] 0,0
 [OTHER] EVERFINE GO-2000B_V1 SYSTEM
 [MANUFAC] LAMAR LIGHTING CO., INC.
 [LUMCAT] HBL3210-50D
 [LAMPCAT] 3030
 [LAMP] CW

CHARACTERISTICS

Lumens Per Lamp	14557 (1 lamp)
Total Lamp Lumens	14557
Luminaire Lumens	14557
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	143
Total Luminaire Watts	101.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.56 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	93534	94990	104593
55	86058	88887	101344
65	76911	82484	98840
75	63700	77765	103699
85	38982	104591	175042

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0	5140.649	5140.649	5140.649	5140.649	5140.649	5140.649	5140.649	5140.649	5140.649	5140.649
1	5123.820	5117.790	5121.310	5125.060	5169.420	5172.650	5160.340	5136.970	5123.250	5120.340
2	5121.000	5113.670	5117.030	5123.680	5170.450	5171.830	5157.360	5132.250	5119.750	5118.570
3	5115.880	5107.340	5110.850	5121.140	5169.900	5168.800	5151.560	5125.330	5114.050	5114.700
4	5108.340	5098.600	5102.570	5116.500	5167.570	5164.290	5144.400	5116.310	5106.360	5108.830
5	5099.240	5087.860	5092.000	5109.960	5163.450	5158.010	5135.430	5105.110	5096.560	5100.880
6	5087.290	5074.500	5079.630	5101.120	5157.750	5149.940	5123.640	5091.790	5084.330	5090.600
7	5073.550	5059.560	5065.050	5090.690	5149.850	5139.350	5110.380	5075.950	5069.500	5078.330
8	5058.120	5042.770	5048.260	5077.890	5140.180	5126.860	5095.260	5058.520	5053.550	5064.160
9	5039.660	5023.010	5029.170	5062.540	5128.180	5112.590	5077.170	5038.680	5035.130	5047.480
10	5019.610	5001.870	5008.690	5046.240	5114.400	5095.800	5057.090	5016.630	5013.990	5028.790
11	4997.880	4978.730	4986.230	5027.830	5098.930	5077.840	5036.030	4993.210	4990.540	5008.520
12	4973.320	4953.070	4961.770	5007.220	5081.580	5057.680	5011.740	4966.240	4965.920	4984.700
13	4946.970	4925.530	4935.510	4985.030	5062.540	5035.210	4985.670	4937.350	4938.680	4959.070
14	4918.720	4896.190	4907.060	4961.060	5041.900	5011.790	4958.940	4907.830	4909.030	4933.120
15	4887.850	4864.440	4876.820	4934.670	5017.820	4985.330	4928.240	4874.240	4878.090	4902.890
16	4856.110	4831.220	4844.870	4906.590	4992.590	4956.320	4896.600	4840.180	4842.900	4871.460
17	4821.680	4796.300	4810.440	4876.930	4965.750	4927.010	4863.660	4804.580	4808.380	4839.210
18	4784.930	4758.250	4774.830	4844.460	4935.910	4894.460	4826.570	4764.370	4769.910	4802.480
19	4746.070	4719.160	4736.400	4811.540	4906.010	4861.370	4789.650	4725.380	4730.590	4766.740
20	4705.850	4678.580	4697.010	4776.220	4873.100	4826.600	4750.010	4683.890	4688.940	4727.990
21	4662.900	4635.370	4655.320	4739.210	4837.470	4787.450	4707.970	4637.280	4644.080	4684.840
22	4619.090	4589.550	4612.460	4699.270	4801.510	4748.670	4665.400	4593.020	4599.180	4643.430
23	4571.740	4543.390	4566.260	4659.010	4763.540	4708.020	4620.910	4543.890	4552.060	4597.750
24	4523.000	4494.100	4519.200	4616.120	4722.660	4664.330	4572.880	4493.880	4500.880	4551.520
25	4473.410	4443.440	4470.670	4571.460	4681.030	4619.260	4524.420	4442.190	4449.480	4502.470
26	4421.830	4392.030	4420.660	4526.560	4637.920	4574.390	4474.170	4389.030	4396.080	4451.520
27	4368.200	4337.690	4368.710	4478.420	4592.820	4525.380	4422.130	4332.780	4340.890	4399.030
28	4312.120	4281.560	4314.410	4429.120	4545.940	4475.890	4368.520	4276.560	4284.120	4344.730
29	4254.450	4223.870	4258.730	4378.150	4497.360	4425.150	4313.220	4217.430	4225.250	4287.800
30	4195.720	4165.580	4202.110	4326.470	4446.650	4370.860	4255.590	4156.190	4164.050	4229.490
31	4135.740	4104.520	4144.220	4272.340	4396.070	4316.640	4197.860	4094.930	4102.860	4171.170
32	4073.250	4042.090	4084.250	4216.130	4342.470	4261.580	4137.020	4031.480	4038.960	4110.150
33	4009.060	3978.510	4022.900	4160.420	4288.240	4203.710	4075.840	3966.030	3973.480	4047.320
34	3944.960	3913.990	3961.530	4102.830	4232.530	4145.390	4013.000	3899.530	3906.750	3983.960
35	3878.470	3848.290	3897.150	4044.480	4175.230	4085.200	3949.200	3831.970	3839.580	3919.250
36	3810.290	3779.880	3832.220	3982.370	4115.840	4023.940	3883.920	3763.050	3770.520	3852.950
37	3741.260	3710.940	3765.820	3919.220	4054.150	3959.340	3816.660	3690.780	3699.370	3783.730
38	3670.960	3641.460	3699.280	3856.340	3991.610	3895.940	3748.870	3620.550	3626.960	3715.190
39	3599.000	3569.580	3630.170	3789.730	3928.040	3830.280	3679.520	3548.490	3553.930	3645.120
40	3526.190	3497.490	3560.300	3724.250	3864.430	3762.530	3610.550	3473.590	3481.060	3572.630
41	3453.270	3424.440	3490.940	3656.870	3798.100	3694.860	3538.770	3399.610	3404.370	3499.920
42	3378.060	3350.880	3418.060	3589.190	3732.190	3625.830	3466.880	3324.480	3329.650	3426.790
43	3302.300	3275.730	3345.440	3520.750	3663.660	3555.440	3393.740	3247.270	3253.350	3351.050
44	3226.640	3199.440	3272.520	3448.570	3593.760	3484.100	3319.840	3170.660	3175.770	3275.810
45	3149.530	3122.210	3198.560	3377.520	3521.900	3412.640	3243.460	3094.680	3095.520	3200.880
46	3070.010	3045.600	3122.090	3304.280	3451.050	3337.750	3168.740	3014.230	3018.480	3121.590
47	2993.270	2968.040	3048.500	3231.660	3378.220	3263.450	3092.530	2935.410	2939.740	3043.920
48	2913.650	2889.130	2972.760	3157.260	3304.260	3189.680	3014.700	2857.120	2858.030	2966.260
49	2833.170	2810.740	2894.290	3082.970	3231.610	3114.670	2939.110	2778.310	2779.720	2887.460
50	2753.730	2732.020	2817.570	3008.750	3155.620	3037.870	2860.710	2698.050	2699.210	2807.620
51	2675.020	2652.160	2741.380	2930.490	3078.590	2961.160	2781.910	2617.870	2617.160	2728.070
52	2593.610	2572.620	2662.080	2854.710	3001.150	2882.470	2703.840	2537.490	2537.100	2646.860
53	2512.690	2493.810	2584.200	2777.250	2923.900	2804.180	2625.750	2457.830	2457.530	2566.990

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54	2432.510	2413.210	2506.130	2698.150	2844.800	2725.480	2545.700	2377.240	2374.960	2486.600
55	2350.570	2333.050	2427.850	2621.120	2768.090	2645.840	2467.400	2296.960	2294.470	2406.320
56	2269.540	2254.130	2348.830	2543.900	2690.560	2568.070	2388.060	2216.680	2214.170	2326.150
57	2189.560	2174.680	2270.330	2468.880	2614.730	2490.510	2308.000	2136.710	2132.340	2244.930
58	2109.910	2093.880	2193.090	2393.650	2542.790	2415.680	2229.300	2057.270	2052.170	2164.640
59	2026.410	2014.130	2110.860	2320.170	2464.580	2341.380	2150.370	1977.100	1972.590	2083.420
60	1947.140	1935.210	2035.240	2242.950	2384.640	2262.290	2070.530	1897.030	1890.550	2002.190
61	1868.430	1855.880	1960.000	2166.710	2306.150	2183.280	1992.690	1817.690	1811.020	1922.640
62	1787.550	1777.170	1884.760	2084.600	2219.280	2106.960	1916.830	1739.500	1732.400	1843.620
63	1706.430	1697.860	1811.290	1998.770	2135.330	2020.370	1841.500	1660.800	1652.330	1764.390
64	1628.010	1620.420	1735.450	1924.900	2060.340	1940.970	1766.670	1582.620	1572.200	1685.370
65	1547.850	1543.820	1660.000	1852.730	1989.170	1868.190	1691.000	1505.270	1495.050	1607.810
66	1469.650	1467.310	1579.560	1782.390	1915.260	1797.140	1614.270	1427.720	1416.340	1530.260
67	1391.990	1389.460	1503.750	1707.480	1837.730	1721.840	1535.710	1351.950	1337.560	1453.960
68	1312.780	1313.300	1432.970	1633.710	1762.170	1650.460	1460.840	1276.390	1260.750	1378.500
69	1234.590	1239.840	1361.730	1559.770	1685.860	1572.440	1390.330	1200.630	1184.550	1302.540
70	1158.690	1165.250	1294.440	1490.560	1616.840	1502.390	1319.620	1126.950	1106.720	1228.750
71	1083.560	1092.530	1222.610	1425.470	1548.920	1437.100	1250.360	1054.130	1031.800	1155.720
72	1006.340	1019.010	1153.010	1355.390	1477.860	1369.520	1179.990	983.270	957.600	1083.400
73	931.190	949.350	1088.430	1286.210	1404.830	1298.320	1112.060	911.820	882.300	1011.630
74	858.540	880.820	1023.280	1223.910	1340.240	1233.630	1048.680	843.280	810.440	941.420
75	785.100	810.930	958.450	1162.190	1278.090	1170.880	984.140	774.460	739.590	871.850
76	712.480	741.400	896.520	1101.250	1215.270	1110.850	920.500	708.440	667.540	806.250
77	642.050	676.800	838.680	1041.700	1154.870	1051.690	860.840	644.540	598.620	738.280
78	572.590	615.340	780.990	985.380	1096.150	992.730	803.370	581.900	529.750	672.790
79	505.620	554.750	725.790	929.590	1038.790	936.600	747.180	522.810	464.380	611.910
80	441.080	494.200	672.180	874.860	982.580	882.570	693.080	466.470	401.200	553.260
81	377.800	437.960	620.260	822.230	927.540	829.290	640.670	412.850	340.330	496.090
82	317.460	385.800	570.220	770.660	874.700	777.160	590.540	361.560	283.180	441.320
83	263.570	337.150	522.830	721.910	823.040	727.260	540.470	314.370	228.710	390.150
84	209.740	291.260	477.510	673.900	773.980	679.010	494.810	272.670	179.480	342.620
85	161.790	248.880	434.090	627.800	726.490	633.170	451.140	231.030	135.030	300.280
86	119.280	210.560	392.970	584.150	679.060	588.510	408.780	194.490	95.550	257.990
87	83.490	176.180	354.480	540.530	635.780	545.410	370.190	161.790	64.550	220.730
88	55.340	145.510	317.790	500.290	594.040	504.620	333.310	133.080	41.490	187.120
89	36.990	118.780	285.390	461.260	552.310	465.620	298.440	108.700	26.670	157.690
90	16.300	95.760	253.050	423.980	510.610	427.880	266.150	87.280	12.170	131.100
91	15.060	76.470	223.810	389.070	472.520	392.870	235.920	69.640	11.190	108.300
92	14.440	60.860	196.960	356.200	437.300	358.610	208.740	54.880	10.670	88.630
93	14.290	47.930	172.240	324.970	403.170	326.960	183.310	43.030	10.230	72.300
94	20.320	37.580	150.280	294.990	370.290	298.220	160.000	33.680	9.940	58.980
95	13.710	29.250	129.580	267.130	338.960	269.500	138.600	25.780	9.680	47.840
96	13.120	22.260	111.490	241.020	309.880	243.130	119.850	18.970	9.360	38.720
97	12.840	15.970	95.240	216.650	282.150	218.450	102.800	12.800	9.210	31.430
98	12.700	12.890	80.780	193.870	255.990	195.410	87.530	9.780	9.150	25.460
99	12.540	12.430	67.790	172.210	231.370	174.020	73.880	9.050	9.070	18.870
100	12.300	12.250	56.000	152.820	208.290	154.170	61.580	8.890	9.280	14.490
101	12.420	12.100	45.440	134.910	186.730	135.960	50.210	8.760	8.960	12.610
102	12.330	11.960	35.360	118.550	167.090	119.290	40.280	8.630	8.940	12.160
103	12.240	11.840	25.020	103.180	148.230	103.990	29.770	8.520	8.920	11.800
104	12.160	11.740	17.220	88.910	130.830	89.670	19.940	8.450	8.890	11.480
105	12.090	11.640	13.650	75.860	114.950	76.150	13.610	8.390	8.860	11.220
106	12.030	11.560	12.480	63.470	100.170	63.640	10.580	8.320	8.830	11.040
107	12.000	11.480	12.300	52.010	86.140	52.180	9.280	8.290	8.830	10.900
108	11.960	11.420	12.170	39.410	72.940	39.860	9.100	8.270	8.820	10.790
109	11.950	11.360	12.070	27.810	60.640	27.750	9.010	8.250	8.830	10.700

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CANDELA TABULATION - (Cont.)

110	11.920	11.360	12.000	19.290	48.390	18.430	8.950	8.240	8.830	10.630
111	11.920	11.350	11.910	15.070	35.250	13.360	8.870	8.270	8.840	10.600
112	11.900	11.350	11.840	13.070	23.490	10.730	8.810	8.280	8.850	10.570
113	11.910	11.340	11.770	12.490	16.040	9.540	8.770	8.290	8.870	10.530
114	11.910	11.340	11.710	12.380	12.290	9.340	8.730	8.320	8.900	10.510
115	11.920	11.330	11.670	12.300	10.440	9.280	8.700	8.330	8.930	10.480
116	11.920	11.340	11.630	12.210	9.820	9.220	8.670	8.360	8.950	10.450
117	11.950	11.360	11.590	12.150	9.730	9.170	8.660	8.400	8.990	10.430
118	11.970	11.380	11.570	12.090	9.680	9.130	8.640	8.420	9.010	10.420
119	12.000	11.400	11.570	12.040	9.630	9.100	8.650	8.450	9.050	10.410
120	12.020	11.440	11.580	12.010	9.580	9.070	8.670	8.490	9.090	10.400
121	12.060	11.480	11.580	11.980	9.550	9.040	8.670	8.540	9.140	10.380
122	12.090	11.510	11.580	11.940	9.520	9.030	8.690	8.590	9.170	10.380
123	12.140	11.550	11.580	11.920	9.500	9.020	8.710	8.630	9.220	10.390
124	12.170	11.580	11.590	11.890	9.470	9.020	8.750	8.690	9.260	10.400
125	12.200	11.620	11.590	11.870	9.470	9.040	8.790	8.740	9.330	10.400
126	12.230	11.650	11.610	11.850	9.450	9.050	8.830	8.810	9.370	10.410
127	12.270	11.670	11.640	11.840	9.470	9.070	8.880	8.860	9.450	10.410
128	12.300	11.700	11.660	11.830	9.470	9.110	8.960	8.920	9.510	10.450
129	12.330	11.730	11.670	11.830	9.480	9.150	9.010	8.980	9.580	10.490
130	12.360	11.760	11.700	11.820	9.520	9.190	9.090	9.050	9.650	10.540
131	12.390	11.790	11.740	11.810	9.530	9.230	9.160	9.130	9.730	10.580
132	12.420	11.830	11.770	11.800	9.570	9.290	9.230	9.200	9.820	10.630
133	12.460	11.860	11.820	11.800	9.620	9.350	9.330	9.300	9.900	10.700
134	12.500	11.890	11.840	11.810	9.670	9.410	9.400	9.370	9.980	10.760
135	12.530	11.930	11.870	11.820	9.720	9.480	9.470	9.470	10.080	10.810
136	12.560	11.980	11.900	11.840	9.780	9.560	9.560	9.570	10.170	10.890
137	12.610	12.010	11.950	11.870	9.830	9.650	9.650	9.670	10.260	10.960
138	12.650	12.040	12.000	11.910	9.890	9.740	9.750	9.760	10.350	11.030
139	12.690	12.100	12.040	11.950	9.950	9.850	9.840	9.870	10.440	11.120
140	12.720	12.160	12.090	12.000	10.020	9.930	9.930	9.990	10.560	11.190
141	12.790	12.230	12.150	12.040	10.100	10.040	10.040	10.100	10.670	11.280
142	12.870	12.300	12.190	12.100	10.190	10.140	10.130	10.210	10.770	11.370
143	12.920	12.370	12.250	12.160	10.270	10.230	10.230	10.320	10.880	11.460
144	13.000	12.430	12.310	12.200	10.370	10.330	10.340	10.430	10.900	11.550
145	13.070	12.520	12.370	12.250	10.460	10.410	10.430	10.550	10.890	11.620
146	13.120	12.580	12.430	12.310	10.570	10.500	10.530	10.650	10.980	11.690
147	13.180	12.650	12.490	12.380	10.650	10.580	10.620	10.760	11.090	11.780
148	13.250	12.730	12.550	12.470	10.770	10.690	10.720	10.890	11.320	11.860
149	13.300	12.800	12.600	12.530	10.870	10.800	10.810	11.000	11.470	11.950
150	13.380	12.870	12.660	12.590	10.980	10.900	10.910	11.130	11.580	12.020
151	13.420	12.930	12.720	12.650	11.090	11.000	10.980	11.240	11.690	12.040
152	13.470	13.010	12.770	12.690	11.200	11.110	11.090	11.360	11.810	11.970
153	13.520	13.070	12.820	12.740	11.310	11.200	11.190	11.490	11.910	11.970
154	13.570	13.140	12.860	12.770	11.410	11.320	11.300	11.610	12.020	12.100
155	13.620	13.190	12.910	12.810	11.500	11.420	11.380	11.720	12.120	12.170
156	13.680	13.270	12.950	12.860	11.600	11.510	11.480	11.830	12.220	12.320
157	13.730	13.320	13.010	12.910	11.690	11.610	11.580	11.930	12.310	12.530
158	13.770	13.380	13.050	12.940	11.790	11.690	11.670	12.030	12.410	12.620
159	13.820	13.440	13.100	12.980	11.880	11.800	11.770	11.990	12.480	12.700
160	13.860	13.480	13.140	13.030	11.970	11.880	11.850	12.020	12.580	12.770
161	13.890	13.530	13.190	13.050	12.050	11.960	11.930	12.090	12.610	12.850
162	13.930	13.580	13.240	13.080	12.150	12.050	12.030	12.180	12.610	12.930
163	13.970	13.620	13.270	13.110	12.250	12.140	12.100	12.270	12.610	13.020
164	13.980	13.670	13.320	13.150	12.340	12.210	12.200	12.360	12.610	13.080
165	14.010	13.710	13.300	13.170	12.410	12.290	12.280	12.450	12.610	13.090

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CANDELA TABULATION - (Cont.)

166	14.040	13.740	13.280	13.190	12.520	12.370	12.370	12.540	12.610	13.030
167	14.060	13.780	13.300	13.210	12.590	12.450	12.450	12.630	12.700	12.970
168	14.080	13.810	13.320	13.240	12.690	12.520	12.520	12.710	12.790	12.970
169	14.110	13.840	13.350	13.240	12.760	12.590	12.580	12.780	12.860	12.950
170	14.120	13.870	13.340	13.240	12.840	12.660	12.650	12.850	12.930	12.940
171	14.130	13.680	13.340	13.240	12.920	12.720	12.720	12.920	13.000	12.940
172	14.130	13.520	13.330	13.240	12.980	12.770	12.770	12.980	13.070	12.970
173	14.100	13.510	13.320	13.240	13.040	12.850	12.820	13.040	13.110	13.010
174	14.090	13.480	13.310	13.220	13.120	12.900	12.900	13.100	13.180	13.080
175	14.040	13.450	13.280	13.190	13.180	12.970	12.950	13.150	13.230	13.160
176	14.020	13.440	13.250	13.170	13.250	13.030	13.000	13.210	13.270	13.210
177	13.790	13.410	13.240	13.170	13.310	13.110	13.090	13.260	13.310	13.260
178	13.480	13.390	13.230	13.130	13.450	13.260	13.270	13.290	13.370	13.290
179	13.460	13.370	13.210	13.140	13.580	13.430	13.470	13.490	13.400	13.330
180	13.420	13.420	13.420	13.420	13.420	13.420	13.420	13.420	13.420	13.420

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	5140.649	5140.649	5140.649	5140.649	5140.649	5140.649	5140.649
1	5124.530	5121.940	5160.950	5168.730	5161.530	5140.710	5123.820
2	5123.250	5117.440	5154.340	5163.990	5159.240	5139.750	5121.000
3	5119.860	5111.140	5145.850	5157.560	5154.850	5136.260	5115.880
4	5114.580	5103.070	5135.680	5149.350	5148.250	5130.680	5108.340
5	5107.300	5093.440	5123.020	5139.030	5139.670	5123.410	5099.240
6	5097.610	5081.900	5108.540	5126.610	5128.980	5114.030	5087.290
7	5086.240	5067.630	5091.340	5112.190	5116.190	5102.140	5073.550
8	5073.120	5051.880	5071.720	5095.510	5101.810	5088.280	5058.120
9	5057.340	5033.210	5050.100	5075.750	5084.300	5071.670	5039.660
10	5040.080	5013.040	5027.000	5055.130	5065.510	5053.790	5019.610
11	5020.620	4991.620	5002.640	5032.420	5045.040	5033.380	4997.880
12	4998.640	4967.580	4975.870	5007.300	5021.630	5010.670	4973.320
13	4975.190	4942.680	4946.580	4981.530	4996.330	4986.170	4946.970
14	4949.920	4915.480	4915.490	4953.350	4969.030	4959.880	4918.720
15	4920.600	4886.080	4882.310	4922.750	4939.530	4931.490	4887.850
16	4891.050	4853.930	4848.160	4890.060	4908.630	4900.900	4856.110
17	4859.700	4820.730	4811.830	4856.190	4876.070	4869.030	4821.680
18	4825.440	4784.090	4774.640	4818.670	4841.730	4834.030	4784.930
19	4790.830	4747.210	4734.950	4780.410	4804.880	4797.650	4746.070
20	4753.930	4709.180	4693.980	4740.880	4766.860	4759.590	4705.850
21	4714.730	4664.890	4650.510	4698.090	4726.430	4719.330	4662.900
22	4674.970	4622.840	4605.450	4653.430	4684.730	4676.340	4619.090
23	4632.280	4576.540	4557.560	4608.430	4639.790	4632.180	4571.740
24	4586.340	4529.360	4508.610	4560.190	4593.050	4585.410	4523.000
25	4539.360	4481.450	4458.390	4511.110	4546.180	4536.860	4473.410
26	4491.410	4432.180	4406.080	4461.490	4496.720	4487.550	4421.830
27	4440.860	4380.220	4351.610	4408.500	4445.910	4435.300	4368.200
28	4389.030	4325.610	4295.210	4352.270	4392.660	4380.750	4312.120
29	4335.200	4268.470	4237.640	4294.960	4337.210	4325.160	4254.450
30	4278.930	4206.940	4180.160	4234.180	4280.890	4268.870	4195.720
31	4223.090	4146.710	4121.330	4172.390	4222.910	4209.900	4135.740
32	4163.180	4084.730	4060.200	4110.270	4162.210	4149.360	4073.250
33	4102.640	4021.690	3998.010	4046.610	4100.850	4086.950	4009.060
34	4040.320	3958.850	3935.700	3984.280	4039.790	4024.520	3944.960
35	3977.580	3893.830	3872.340	3919.850	3975.310	3960.920	3878.470
36	3913.660	3829.930	3807.840	3853.750	3909.540	3894.190	3810.290

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CANDELA TABULATION - (Cont.)

37	3846.920	3762.290	3742.380	3787.550	3842.520	3826.720	3741.260
38	3779.320	3696.570	3675.640	3720.590	3773.380	3758.710	3670.960
39	3708.580	3630.990	3607.050	3651.670	3701.430	3688.200	3599.000
40	3636.870	3561.260	3538.120	3583.460	3627.890	3617.050	3526.190
41	3561.340	3493.680	3469.290	3513.980	3555.270	3544.840	3453.270
42	3487.980	3423.820	3397.350	3444.620	3480.270	3472.320	3378.060
43	3413.570	3353.420	3324.440	3374.190	3405.140	3397.810	3302.300
44	3338.010	3283.020	3252.240	3301.060	3329.800	3321.410	3226.640
45	3261.110	3211.680	3178.070	3227.910	3254.460	3244.710	3149.530
46	3186.290	3137.410	3101.600	3153.720	3176.520	3168.720	3070.010
47	3110.830	3062.800	3025.940	3078.490	3101.670	3090.740	2993.270
48	3034.460	2989.550	2950.280	3003.870	3025.710	3011.830	2913.650
49	2960.150	2914.850	2873.370	2927.900	2948.070	2932.810	2833.170
50	2884.590	2838.570	2796.140	2852.130	2871.360	2853.990	2753.730
51	2808.000	2763.010	2720.670	2775.520	2795.790	2773.900	2675.020
52	2732.660	2685.170	2645.430	2697.980	2717.950	2692.580	2593.610
53	2657.500	2609.290	2574.140	2621.360	2640.710	2611.880	2512.690
54	2580.290	2531.860	2500.720	2543.000	2564.000	2530.130	2432.510
55	2504.410	2457.330	2431.010	2468.210	2485.940	2449.230	2350.570
56	2428.000	2385.850	2344.300	2397.260	2407.970	2369.140	2269.540
57	2350.260	2312.000	2250.120	2323.730	2330.620	2287.170	2189.560
58	2273.440	2242.400	2174.160	2253.080	2253.180	2203.530	2109.910
59	2196.400	2158.450	2097.260	2166.270	2172.510	2121.260	2026.410
60	2118.140	2068.650	2022.310	2077.790	2095.240	2038.780	1947.140
61	2041.660	1991.120	1952.990	2000.690	2020.400	1957.980	1868.430
62	1966.830	1917.840	1886.330	1926.090	1945.170	1877.160	1787.550
63	1891.190	1844.700	1801.760	1852.690	1868.370	1795.640	1706.430
64	1816.410	1776.460	1723.810	1784.590	1795.710	1716.540	1628.010
65	1745.980	1708.360	1654.150	1717.730	1723.520	1638.570	1547.850
66	1672.870	1626.320	1587.700	1633.860	1646.550	1561.430	1469.650
67	1592.710	1553.940	1519.730	1561.070	1563.290	1482.740	1391.990
68	1514.090	1486.640	1441.360	1492.600	1489.320	1405.850	1312.780
69	1443.280	1419.910	1375.020	1428.720	1417.730	1332.600	1234.590
70	1372.910	1349.230	1312.670	1353.990	1349.390	1258.430	1158.690
71	1305.340	1282.260	1250.560	1288.120	1284.110	1185.290	1083.560
72	1237.610	1220.190	1188.730	1224.360	1209.070	1111.550	1006.340
73	1165.200	1157.880	1130.470	1162.590	1141.000	1040.740	931.190
74	1100.830	1098.380	1072.360	1103.430	1077.780	971.180	858.540
75	1039.570	1039.420	1014.670	1044.230	1013.490	902.130	785.100
76	972.280	983.180	959.060	985.930	947.100	834.350	712.480
77	911.470	927.170	905.440	929.520	887.650	765.750	642.050
78	853.890	872.620	853.410	875.420	829.530	699.890	572.590
79	796.650	821.210	804.200	823.730	773.080	637.280	505.620
80	742.130	771.180	756.900	772.880	718.830	576.650	441.080
81	689.090	722.730	709.400	723.200	665.340	516.060	377.800
82	638.050	674.800	664.090	676.030	613.940	460.310	317.460
83	589.310	629.410	621.100	630.130	565.280	407.230	263.570
84	540.620	586.100	579.160	586.420	518.710	357.610	209.740
85	496.080	544.570	538.690	542.740	473.710	311.240	161.790
86	452.620	504.520	500.410	502.570	430.920	268.580	119.280
87	412.920	465.950	464.240	464.570	391.160	229.690	83.490
88	374.660	429.460	429.230	428.210	353.100	194.340	55.340
89	338.190	395.290	396.420	392.970	317.660	162.610	36.990
90	304.560	362.080	364.570	359.820	285.830	134.650	16.300
91	272.710	330.960	334.080	328.710	254.040	110.760	15.060
92	243.780	302.530	306.600	299.460	225.470	90.510	14.440

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CANDELA TABULATION - (Cont.)

93	216.680	274.130	279.140	272.040	199.370	73.480	14.290
94	191.720	248.600	254.690	245.970	175.910	59.400	20.320
95	168.720	224.600	230.660	221.750	153.730	48.050	13.710
96	148.280	201.880	208.640	199.400	134.140	38.970	13.120
97	129.540	180.800	188.150	178.400	116.410	31.860	12.840
98	112.640	161.420	168.780	158.950	100.460	25.420	12.700
99	97.260	143.330	150.750	140.770	86.250	19.350	12.540
100	83.650	126.780	134.120	124.470	73.700	16.670	12.300
101	71.390	111.500	118.930	109.690	62.730	15.850	12.420
102	60.890	97.650	105.050	96.180	53.080	15.420	12.330
103	51.230	85.150	92.450	83.550	44.170	15.030	12.240
104	42.350	73.620	80.620	72.280	33.760	14.680	12.160
105	32.290	63.040	69.670	62.100	25.010	14.440	12.090
106	23.310	52.990	59.340	51.430	20.370	14.220	12.030
107	17.830	41.330	46.970	39.320	17.570	14.070	12.000
108	14.280	30.010	34.840	28.920	16.330	13.960	11.960
109	12.670	22.290	26.670	23.020	15.940	13.870	11.950
110	12.370	17.340	21.560	19.080	15.640	13.790	11.920
111	12.140	14.050	18.030	16.710	15.390	13.710	11.920
112	11.930	12.530	16.060	15.900	15.180	13.640	11.900
113	11.770	12.310	15.650	15.670	15.020	13.600	11.910
114	11.640	12.170	15.510	15.470	14.870	13.560	11.910
115	11.530	12.050	15.380	15.340	14.750	13.500	11.920
116	11.450	11.940	15.260	15.200	14.650	13.460	11.920
117	11.370	11.850	15.170	15.080	14.550	13.430	11.950
118	11.310	11.760	15.080	14.980	14.470	13.410	11.970
119	11.260	11.690	15.010	14.900	14.410	13.390	12.000
120	11.210	11.640	14.930	14.820	14.370	13.380	12.020
121	11.190	11.580	14.880	14.760	14.330	13.370	12.060
122	11.160	11.560	14.820	14.690	14.300	13.370	12.090
123	11.150	11.500	14.780	14.640	14.250	13.370	12.140
124	11.140	11.490	14.730	14.580	14.230	13.360	12.170
125	11.130	11.480	14.700	14.550	14.200	13.360	12.200
126	11.130	11.480	14.670	14.510	14.170	13.360	12.230
127	11.120	11.480	14.630	14.500	14.140	13.360	12.270
128	11.130	11.490	14.610	14.460	14.100	13.350	12.300
129	11.130	11.490	14.580	14.440	14.070	13.350	12.330
130	11.140	11.510	14.540	14.410	14.050	13.350	12.360
131	11.160	11.540	14.500	14.360	14.020	13.340	12.390
132	11.190	11.550	14.460	14.330	13.990	13.340	12.420
133	11.220	11.590	14.440	14.300	13.970	13.340	12.460
134	11.260	11.620	14.420	14.260	13.940	13.330	12.500
135	11.300	11.660	14.390	14.240	13.920	13.330	12.530
136	11.350	11.720	14.380	14.220	13.900	13.340	12.560
137	11.400	11.760	14.370	14.220	13.880	13.350	12.610
138	11.450	11.820	14.380	14.230	13.870	13.360	12.650
139	11.500	11.870	14.390	14.240	13.870	13.380	12.690
140	11.560	11.920	14.380	14.250	13.890	13.400	12.720
141	11.630	11.990	14.390	14.260	13.900	13.430	12.790
142	11.700	12.040	14.400	14.270	13.900	13.450	12.870
143	11.770	12.100	14.400	14.270	13.930	13.480	12.920
144	11.840	12.160	14.410	14.290	13.930	13.520	13.000
145	11.900	12.190	14.420	14.300	13.950	13.550	13.070
146	11.980	12.260	14.430	14.310	13.970	13.590	13.120
147	12.040	12.330	14.440	14.330	13.980	13.620	13.180
148	12.110	12.390	14.460	14.340	13.990	13.650	13.250

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CANDELA TABULATION - (Cont.)

149	12.190	12.450	14.490	14.340	14.000	13.680	13.300
150	12.280	12.530	14.510	14.370	14.020	13.720	13.380
151	12.310	12.600	14.530	14.390	14.040	13.750	13.420
152	12.300	12.670	14.540	14.420	14.060	13.780	13.470
153	12.220	12.730	14.540	14.430	14.080	13.810	13.520
154	12.220	12.770	14.540	14.460	14.090	13.850	13.570
155	12.330	12.740	14.530	14.460	14.100	13.870	13.620
156	12.410	12.720	14.530	14.470	14.110	13.910	13.680
157	12.480	12.690	14.520	14.470	14.110	13.930	13.730
158	12.570	12.650	14.510	14.460	14.120	13.940	13.770
159	12.740	12.720	14.500	14.450	14.130	13.980	13.820
160	12.850	12.790	14.480	14.450	14.140	13.990	13.860
161	12.920	12.900	14.470	14.430	14.150	14.000	13.890
162	12.980	12.970	14.450	14.410	14.140	14.020	13.930
163	13.050	13.040	14.430	14.390	14.140	14.030	13.970
164	13.100	13.100	14.410	14.380	14.120	14.050	13.980
165	13.160	13.160	14.380	14.340	14.110	14.050	14.010
166	13.210	13.220	14.370	14.340	14.090	14.050	14.040
167	13.270	13.280	14.330	14.310	14.090	14.050	14.060
168	13.310	13.310	14.300	14.290	14.080	14.050	14.080
169	13.370	13.330	14.260	14.240	14.050	14.050	14.110
170	13.410	13.360	14.220	14.200	14.040	14.050	14.120
171	13.340	13.360	14.170	14.150	14.000	14.050	14.130
172	13.270	13.390	14.120	14.100	13.970	14.050	14.130
173	13.250	13.390	14.050	14.020	13.910	14.020	14.100
174	13.220	13.400	13.980	13.950	13.850	13.980	14.090
175	13.220	13.410	13.910	13.850	13.790	13.950	14.040
176	13.210	13.340	13.830	13.770	13.720	13.900	14.020
177	13.190	13.280	13.750	13.700	13.640	13.870	13.790
178	13.210	13.250	13.680	13.630	13.600	13.830	13.480
179	13.230	13.230	13.630	13.570	13.540	13.800	13.460
180	13.420	13.420	13.420	13.420	13.420	13.420	13.420

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1872.22	12.90	12.90
0-30	3951.96	27.10	27.10
0-40	6416.15	44.10	44.10
0-60	11114.62	76.40	76.40
0-80	13817.2	94.90	94.90
0-90	14297.28	98.20	98.20
10-90	13811.24	94.90	94.90
20-40	4543.92	31.20	31.20
20-50	7040.2	48.40	48.40
40-70	6366.14	43.70	43.70
60-80	2702.58	18.60	18.60
70-80	1034.9	7.10	7.10
80-90	480.09	3.30	3.30
90-110	209.74	1.40	1.40
90-120	221.87	1.50	1.50
90-130	232.12	1.60	1.60
90-150	248.78	1.70	1.70
90-180	259.74	1.80	1.80
110-180	50.00	0.30	0.30
0-180	14557.02	100.00	100.00

Total Luminaire Efficiency = 100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	486.04
10-20	1386.18
20-30	2079.73
30-40	2464.19
40-50	2496.27
50-60	2202.19
60-70	1667.68
70-80	1034.9
80-90	480.09
90-100	165.78
100-110	43.95
110-120	12.14
120-130	10.24
130-140	9.01
140-150	7.65
150-160	5.92
160-170	3.76
170-180	1.28

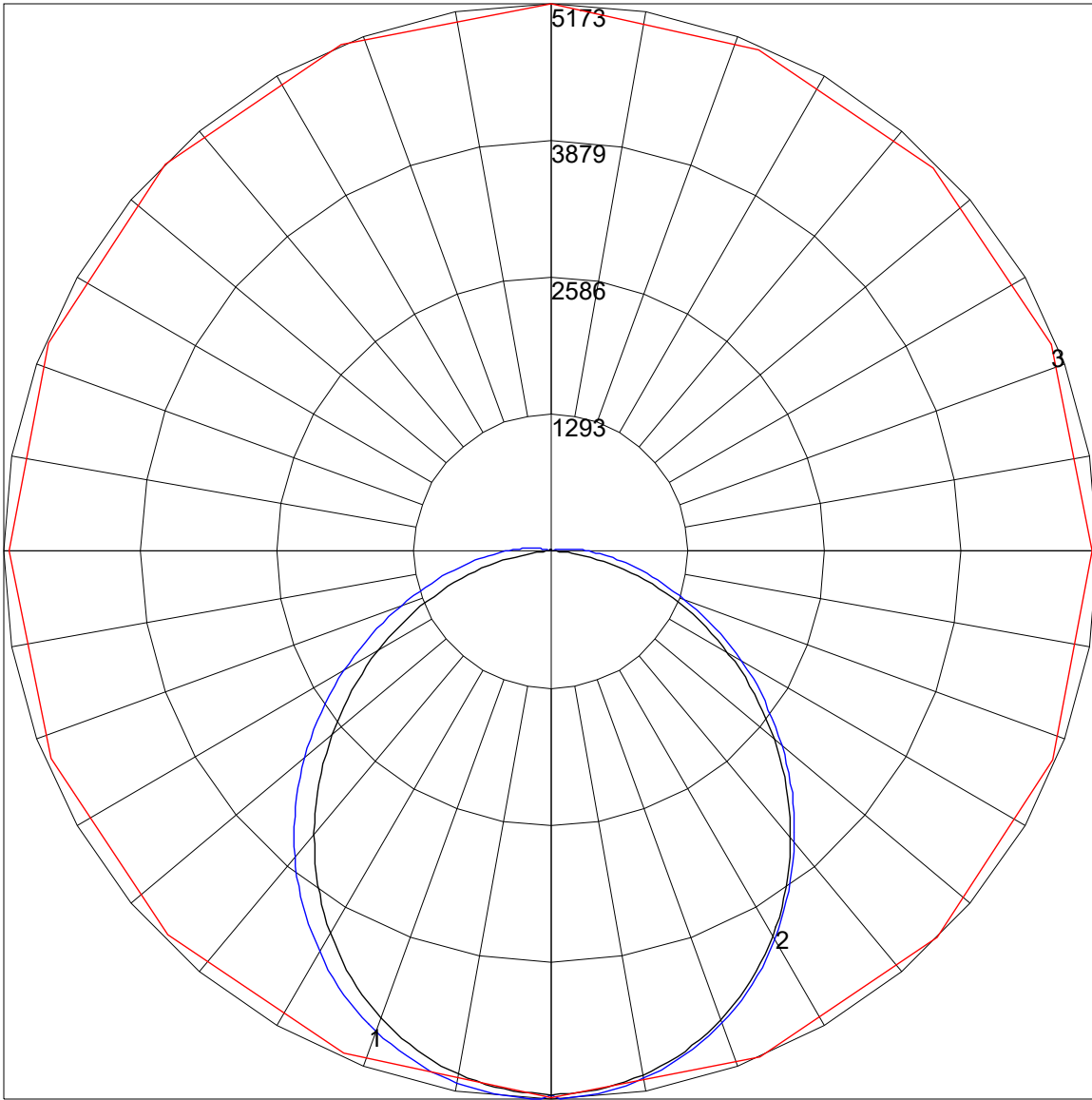
IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBL3210-50D.IES

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	90	83	77	95	87	81	76	84	78	74	80	76	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	55	49	44	42
6	70	56	47	41	67	55	47	40	53	46	40	51	45	39	49	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	47	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	29	40	33	28	38	32	28	26
10	53	39	32	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 5172.65 Located At Horizontal Angle = 112.5, Vertical Angle = 1
1 - Vertical Plane Through Horizontal Angles (112.5 - 292.5) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (0 - 180)
3 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)