



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BP-22-LS-8CS-DIM-UNV\_30W\_5000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] JBE210303-E  
[TESTLAB] STANDARD-TECH TESTING SERVICES  
[TESTDATE] 20 March 2021  
[ISSUEDATE] 2022-02-18  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] BP-22-LS-8CS-DIM-UNV\_30W\_5000K  
[OTHER] Input Voltage=120.1 PF=0.9935 THD=8.22

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3420
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	29
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.54 m
Luminous Width (90-270)	0.54 m
Luminous Height	0.00 m

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3813	3822	3821
55	3685	3705	3704
65	3476	3515	3523
75	3071	3192	3239
85	2270	2365	2534

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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	1176.052	1176.052	1176.052	1176.052	1176.052	1176.052	1176.052	1176.052	1176.052	1176.052
1	1175.424	1175.109	1175.817	1175.895	1176.131	1175.659	1175.345	1176.052	1175.502	1175.109
2	1174.952	1175.266	1175.581	1174.716	1175.188	1175.974	1175.345	1175.031	1175.031	1174.716
3	1174.245	1174.087	1174.873	1173.930	1175.266	1174.716	1173.851	1173.851	1174.402	1174.087
4	1172.672	1172.279	1172.830	1172.515	1173.458	1173.380	1173.144	1171.965	1172.044	1171.572
5	1171.651	1171.258	1171.100	1171.415	1171.100	1171.258	1170.393	1170.079	1170.157	1170.000
6	1169.214	1168.271	1168.978	1168.821	1169.607	1168.428	1168.585	1168.585	1168.114	1167.878
7	1166.306	1166.384	1166.699	1166.306	1167.799	1166.699	1166.384	1165.362	1165.520	1164.812
8	1163.633	1164.105	1163.319	1163.397	1163.948	1163.476	1162.611	1162.297	1162.061	1161.589
9	1160.096	1160.253	1160.253	1159.467	1161.039	1160.489	1158.838	1158.996	1159.231	1158.367
10	1156.166	1156.166	1156.716	1156.323	1156.638	1156.480	1155.458	1154.594	1154.908	1154.201
11	1151.921	1152.157	1152.472	1151.843	1153.415	1152.079	1151.214	1150.349	1150.271	1149.406
12	1147.913	1147.362	1148.227	1147.127	1148.934	1147.677	1146.891	1146.026	1146.498	1145.162
13	1142.803	1143.118	1142.568	1142.646	1143.511	1142.489	1142.017	1140.760	1140.838	1140.917
14	1137.458	1137.301	1137.223	1137.537	1139.109	1137.144	1136.437	1134.943	1136.122	1134.157
15	1131.878	1131.563	1131.563	1131.642	1133.371	1131.406	1130.070	1129.598	1129.834	1128.498
16	1125.825	1126.061	1125.275	1126.218	1127.004	1124.961	1124.332	1123.153	1123.153	1121.817
17	1119.694	1119.144	1119.458	1118.515	1120.166	1117.651	1117.336	1116.629	1117.022	1115.293
18	1112.541	1112.384	1112.777	1112.227	1113.485	1112.070	1110.734	1109.083	1109.712	1108.061
19	1105.153	1105.467	1105.782	1105.310	1106.332	1104.367	1103.266	1101.851	1102.323	1101.223
20	1097.843	1097.371	1097.450	1096.900	1098.314	1096.821	1095.485	1094.620	1094.699	1092.262
21	1090.218	1089.668	1089.668	1089.904	1091.162	1088.568	1087.467	1085.738	1086.288	1085.109
22	1081.729	1081.808	1081.651	1081.336	1082.279	1080.786	1079.057	1077.170	1077.720	1076.384
23	1072.690	1072.611	1072.926	1073.004	1073.476	1072.140	1070.253	1068.445	1068.210	1067.502
24	1063.808	1063.651	1064.122	1063.022	1065.144	1062.236	1060.900	1059.406	1059.327	1058.070
25	1053.825	1054.140	1053.983	1054.297	1055.004	1053.118	1052.175	1049.581	1050.603	1048.009
26	1045.258	1043.843	1043.843	1043.921	1046.201	1043.450	1041.485	1039.991	1039.991	1038.498
27	1033.703	1033.389	1034.332	1034.332	1035.118	1032.996	1031.895	1029.773	1029.223	1028.594
28	1023.170	1022.934	1023.563	1022.934	1025.214	1022.699	1021.127	1018.140	1018.454	1017.668
29	1012.402	1012.559	1012.952	1012.480	1014.603	1011.537	1010.122	1008.314	1007.686	1006.585
30	1000.847	1001.004	1002.262	1001.319	1002.969	1000.690	998.568	996.838	996.367	995.266
31	990.157	989.528	989.921	989.450	991.965	989.764	986.856	984.734	984.498	983.712
32	977.817	977.581	978.838	978.603	979.782	977.502	975.537	972.707	972.629	972.000
33	965.319	965.555	966.419	965.948	967.755	965.162	962.725	960.524	959.974	959.502
34	952.585	953.528	954.000	953.450	955.022	953.135	950.620	947.869	947.869	946.847
35	939.773	940.480	941.502	941.266	942.210	939.930	937.572	934.664	934.192	933.485
36	927.118	927.511	928.140	927.747	929.004	926.803	923.895	921.223	920.672	920.515
37	913.677	914.306	914.541	914.463	915.799	913.362	910.611	907.074	907.389	906.681
38	899.528	899.843	901.336	900.629	901.729	899.686	896.934	893.948	892.926	892.297
39	886.166	886.087	886.795	887.031	887.109	884.987	882.943	879.563	878.777	878.699
40	871.310	871.939	873.039	872.410	873.354	871.624	867.930	864.314	864.157	864.000
41	857.240	857.162	858.576	857.790	858.655	855.904	853.310	849.930	849.144	849.144
42	841.755	842.384	843.485	842.620	843.799	840.891	838.533	835.153	833.895	833.581
43	826.821	826.664	827.607	827.764	827.607	826.585	822.969	819.589	818.568	818.568
44	811.336	811.415	812.830	812.358	813.065	810.629	808.035	803.633	803.319	802.611
45	795.223	795.930	797.188	796.323	797.031	794.908	791.528	787.834	787.205	786.812
46	778.575	780.037	780.791	780.335	781.058	778.999	776.091	771.886	770.840	770.738
47	762.783	763.271	764.945	764.088	764.921	763.019	759.679	755.387	754.436	753.760
48	745.695	747.204	748.501	747.880	749.130	746.190	743.471	738.943	737.418	737.756
49	729.204	730.383	731.334	730.541	731.704	729.739	726.524	721.486	720.519	719.937
50	712.093	712.981	715.072	713.720	714.458	712.124	708.996	705.097	703.108	703.163
51	695.091	696.293	697.064	697.095	697.402	695.838	691.609	687.136	685.517	685.085
52	677.555	678.859	679.850	679.032	680.015	677.775	674.206	669.238	667.745	667.957
53	659.963	660.773	662.203	661.292	662.722	660.757	656.253	651.663	649.839	650.405

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**CANDELA TABULATION - (Cont.)**

54	641.547	643.103	644.683	643.960	644.738	642.427	638.552	633.403	631.195	631.533
55	623.397	624.867	626.777	626.196	626.722	624.458	620.308	615.592	613.163	614.091
56	604.973	606.993	608.133	607.732	608.455	606.616	602.489	596.814	594.134	595.085
57	586.548	588.553	590.093	589.355	590.667	588.121	584.175	578.004	575.238	576.417
58	568.045	569.822	571.606	570.608	572.007	569.688	565.365	559.187	556.161	557.733
59	548.788	550.714	552.663	552.199	553.048	551.437	546.721	540.157	536.691	538.169
60	530.049	531.943	533.735	533.484	534.867	532.242	527.620	521.159	517.551	519.100
61	510.980	512.654	514.981	514.486	515.696	513.613	508.465	501.563	498.065	499.520
62	491.864	494.002	495.872	495.817	496.501	494.607	489.183	482.046	478.344	480.010
63	472.606	474.783	476.693	476.576	477.637	475.389	469.886	462.427	458.717	460.470
64	452.916	455.557	457.782	457.420	458.544	456.052	450.487	443.138	439.404	440.678
65	433.289	435.749	438.217	438.052	439.224	436.905	430.876	423.668	419.919	421.349
66	413.434	416.177	418.606	418.913	419.982	417.561	411.438	403.797	399.938	401.683
67	393.532	396.377	399.254	399.309	400.944	398.547	392.031	384.328	380.688	382.048
68	373.425	376.727	379.910	380.028	381.482	379.093	372.569	364.795	361.163	362.578
69	353.602	356.667	360.432	360.872	362.044	359.796	352.989	345.160	341.701	343.148
70	333.825	337.095	341.017	342.110	343.093	340.664	333.645	326.075	322.169	323.827
71	313.766	317.075	321.225	322.192	323.623	321.343	314.308	306.432	302.824	304.569
72	293.620	297.141	301.622	302.997	304.554	302.086	295.051	287.623	283.559	285.265
73	274.079	277.247	282.341	283.787	285.131	283.111	276.359	268.302	264.403	265.936
74	254.201	257.463	263.067	265.142	266.581	264.356	257.093	249.665	245.578	247.260
75	234.432	238.150	243.723	246.073	247.284	245.232	238.205	230.416	226.509	228.081
76	215.167	218.515	224.143	226.957	228.451	226.596	219.569	212.180	208.258	209.924
77	195.548	198.983	204.854	208.100	209.334	207.637	201.152	193.826	190.022	191.649
78	176.934	180.126	186.170	188.976	189.951	188.371	182.665	175.590	171.904	173.374
79	158.612	161.505	167.392	170.017	171.259	169.672	164.963	157.724	153.967	155.822
80	140.746	143.591	148.748	151.436	152.796	151.106	147.113	140.086	136.808	138.238
81	123.430	126.212	130.174	132.807	134.788	132.414	128.728	122.691	119.201	120.907
82	106.318	109.045	112.024	114.776	116.513	114.548	110.680	105.752	102.435	103.976
83	89.607	92.138	94.386	96.744	99.134	97.027	92.751	89.041	86.196	87.430
84	73.699	76.169	77.268	79.467	82.022	79.821	75.847	73.095	70.551	71.620
85	58.369	60.107	60.794	62.242	65.138	62.873	58.898	56.794	55.023	55.081
86	43.911	44.798	45.336	46.265	49.003	46.384	42.971	41.098	40.280	39.642
87	29.537	29.867	30.000	30.333	32.660	30.215	27.120	25.686	25.448	24.392
88	16.185	16.265	15.896	15.884	17.314	15.236	13.329	12.259	12.309	11.189
89	4.307	4.327	4.309	3.802	4.720	3.340	2.690	1.860	1.876	1.493
90	0.128	0.194	0.257	0.258	0.000	0.058	0.050	0.015	0.039	0.024
91	0.000	0.127	0.128	0.193	0.000	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.065	0.127	0.000	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000	0.000	0.064	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.002	0.064	0.129	0.129	0.064	0.128
106	0.000	0.000	0.000	0.000	0.069	0.065	0.259	0.130	0.129	0.130
107	0.065	0.065	0.130	0.066	0.195	0.065	0.196	0.194	0.066	0.130
108	0.066	0.065	0.131	0.130	0.259	0.191	0.321	0.258	0.254	0.256
109	0.130	0.128	0.195	0.138	0.261	0.194	0.324	0.323	0.259	0.196

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**CANDELA TABULATION - (Cont.)**

110	0.130	0.065	0.195	0.390	0.390	0.258	0.388	0.324	0.259	0.258
111	0.130	0.195	0.325	0.520	0.454	0.259	0.452	0.388	0.259	0.259
112	0.133	0.258	0.392	0.651	0.390	0.323	0.454	0.389	0.259	0.323
113	0.258	0.194	0.519	0.780	0.454	0.324	0.454	0.516	0.324	0.389
114	0.195	0.194	0.519	0.912	0.454	0.387	0.580	0.455	0.450	0.452
115	0.196	0.194	0.583	1.037	0.519	0.453	0.520	0.454	0.518	0.389
116	0.323	0.194	0.521	0.973	0.519	0.454	0.645	0.454	0.456	0.389
117	0.259	0.194	0.713	0.973	0.587	0.581	0.649	0.454	0.581	0.389
118	0.259	0.195	0.714	0.973	0.715	0.583	0.777	0.454	0.584	0.389
119	0.259	0.259	0.778	0.973	0.776	0.709	0.778	0.454	0.584	0.389
120	0.262	0.327	0.778	0.973	0.717	0.713	0.778	0.454	0.648	0.389
121	0.459	0.520	0.779	0.973	0.842	0.840	0.778	0.454	0.649	0.389
122	0.782	0.716	0.843	0.973	0.778	0.906	0.778	0.454	0.649	0.389
123	0.907	0.907	0.844	0.973	0.778	0.972	0.778	0.455	0.649	0.454
124	0.843	0.907	0.906	0.973	0.778	0.972	0.778	0.518	0.649	0.454
125	0.843	0.908	0.843	0.973	0.782	1.037	0.778	0.649	0.713	0.518
126	0.845	0.972	0.843	0.973	0.909	1.037	0.778	0.775	0.649	0.778
127	0.908	0.973	0.845	0.973	0.975	1.037	0.778	1.035	0.839	0.841
128	0.908	1.036	0.907	0.973	1.101	1.037	0.778	1.037	0.843	1.101
129	0.908	0.972	0.843	0.975	1.038	1.037	0.778	1.037	0.970	1.101
130	0.908	0.972	0.842	1.037	1.102	1.037	0.778	1.037	0.973	1.101
131	0.908	0.972	0.776	1.037	1.042	1.101	0.778	1.037	0.973	1.101
132	0.908	0.972	0.713	1.037	1.166	1.102	0.778	1.037	0.973	1.101
133	0.909	0.972	0.713	1.037	1.103	1.102	0.778	1.037	0.973	1.101
134	0.973	0.972	0.713	1.037	1.233	1.102	0.778	1.037	0.973	1.101
135	0.973	0.972	0.713	1.037	1.297	1.166	0.778	1.037	0.973	1.101
136	0.973	0.972	0.707	1.037	1.297	1.166	0.778	1.037	0.973	1.101
137	0.973	0.972	0.519	1.037	1.297	1.295	0.778	1.037	0.973	1.101
138	0.973	0.972	0.515	1.037	1.297	1.232	0.778	1.037	0.973	1.101
139	0.973	0.972	0.388	1.037	1.297	1.231	0.778	1.037	0.973	1.101
140	0.973	0.972	0.258	1.037	1.297	1.231	0.778	1.037	0.973	1.101
141	0.973	0.972	0.128	1.037	1.297	1.231	0.778	1.037	0.973	1.101
142	0.973	0.972	0.064	1.037	1.297	1.231	0.778	1.037	0.973	1.101
143	0.975	0.972	0.000	1.037	1.297	1.231	0.778	1.037	0.973	1.101
144	1.037	0.972	0.000	0.973	1.297	1.231	0.778	1.037	0.973	1.101
145	0.972	0.972	0.000	0.973	1.297	1.231	0.907	1.037	0.973	1.101
146	0.908	0.969	0.000	0.971	1.297	1.231	0.844	1.037	0.973	1.101
147	0.908	0.842	0.000	0.844	1.297	1.231	0.970	1.037	0.973	1.101
148	0.908	0.842	0.000	0.906	1.297	1.231	0.973	1.037	0.973	1.101
149	0.908	0.777	0.000	0.841	1.297	1.231	0.973	1.037	0.973	1.101
150	0.908	0.711	0.000	0.777	1.297	1.231	1.037	1.037	0.973	1.101
151	0.908	0.648	0.000	0.713	1.297	1.231	1.101	1.102	0.973	1.101
152	0.908	0.647	0.000	0.713	1.297	1.231	1.102	0.972	0.973	1.101
153	0.908	0.583	0.000	0.713	1.297	1.231	1.102	0.972	0.973	1.101
154	0.908	0.583	0.000	0.712	1.297	1.231	1.102	0.908	0.973	1.101
155	0.908	0.583	0.000	0.648	1.297	1.231	1.102	0.908	0.973	1.101
156	0.908	0.584	0.000	0.646	1.297	1.231	1.102	0.908	0.973	1.101
157	0.908	0.646	0.000	0.584	1.297	1.231	1.102	0.908	0.973	1.101
158	0.908	0.583	0.000	0.584	1.297	1.231	1.102	0.971	0.973	1.101
159	0.908	0.581	0.000	0.582	1.297	1.231	1.102	0.843	0.973	1.101
160	0.908	0.454	0.000	0.519	1.297	1.231	1.102	0.777	0.973	1.101
161	0.908	0.454	0.000	0.519	1.297	1.231	1.102	0.650	0.973	1.101
162	0.908	0.517	0.000	0.519	1.297	1.231	1.102	0.389	0.973	1.101
163	0.908	0.453	0.000	0.519	1.297	1.231	1.102	0.389	0.973	1.101
164	0.908	0.391	0.000	0.520	1.297	1.231	1.102	0.324	0.973	1.101
165	0.909	0.521	0.000	0.584	1.297	1.231	1.102	0.260	0.973	1.101

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : BP-22-LS-8CS-DIM-UNV\_30W\_5000K.IES**

**CANDELA TABULATION - (Cont.)**

166	0.973	0.777	0.000	0.590	1.297	1.231	1.102	0.259	0.973	1.101
167	0.973	0.778	0.000	0.780	1.298	1.231	1.102	0.195	0.973	1.101
168	0.973	0.844	0.000	0.843	1.359	1.231	1.102	0.195	0.973	1.101
169	0.973	0.909	0.000	0.846	1.232	1.231	1.102	0.195	0.973	1.101
170	0.973	1.037	0.000	0.973	1.232	1.231	1.102	0.195	1.038	1.101
171	0.973	1.101	0.000	0.973	1.232	1.231	1.102	0.195	0.913	1.101
172	0.974	1.101	0.000	0.973	1.232	1.231	1.166	0.195	0.908	1.101
173	1.038	1.101	0.000	0.973	1.232	1.168	1.104	0.195	0.908	1.101
174	1.103	1.101	0.000	0.973	1.232	1.166	1.102	0.259	0.908	1.101
175	1.103	1.101	0.065	0.973	1.232	1.230	0.975	0.195	0.908	1.101
176	1.103	1.101	0.065	0.973	1.232	1.168	0.973	0.130	0.908	1.101
177	1.103	1.101	0.065	0.973	1.232	1.103	0.973	0.194	0.908	1.101
178	1.103	1.101	0.065	0.973	1.232	1.039	0.973	0.001	0.908	1.101
179	1.103	1.101	0.065	0.973	1.232	0.972	0.973	0.065	0.908	1.101
180	1.103	1.103	1.103	1.103	1.103	1.103	1.103	1.103	1.103	1.103

**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	1176.052	1176.052	1176.052	1176.052	1176.052	1176.052	1176.052
1	1176.131	1175.109	1175.502	1176.131	1176.603	1175.895	1175.424
2	1174.952	1175.188	1175.424	1175.424	1175.424	1174.638	1174.952
3	1174.323	1173.537	1174.480	1174.873	1174.559	1174.323	1174.245
4	1172.830	1171.808	1172.122	1173.223	1172.987	1173.301	1172.672
5	1170.629	1170.707	1170.865	1170.943	1171.022	1170.865	1171.651
6	1167.720	1168.192	1168.742	1168.821	1168.664	1169.293	1169.214
7	1165.991	1165.677	1165.834	1166.463	1166.699	1166.148	1166.306
8	1161.668	1162.847	1162.769	1163.397	1163.476	1163.476	1163.633
9	1159.153	1158.996	1159.310	1159.860	1159.782	1160.410	1160.096
10	1155.065	1155.380	1155.694	1155.773	1156.087	1156.009	1156.166
11	1151.057	1150.585	1151.371	1151.921	1151.921	1151.764	1151.921
12	1146.183	1146.183	1147.205	1147.755	1147.755	1147.598	1147.913
13	1141.231	1141.782	1141.467	1141.624	1142.410	1142.489	1142.803
14	1135.415	1135.886	1136.672	1136.830	1137.144	1137.930	1137.458
15	1129.755	1129.913	1130.934	1130.699	1131.720	1131.720	1131.878
16	1123.467	1123.782	1124.725	1125.354	1125.668	1125.432	1125.825
17	1116.865	1117.336	1117.886	1117.651	1119.065	1118.672	1119.694
18	1109.712	1110.026	1111.598	1111.598	1111.913	1111.913	1112.541
19	1102.716	1103.031	1104.210	1103.974	1105.074	1104.760	1105.153
20	1094.463	1095.249	1096.428	1096.192	1096.742	1096.585	1097.843
21	1086.131	1087.310	1088.568	1088.332	1089.118	1089.354	1090.218
22	1078.349	1079.057	1080.236	1080.236	1080.472	1080.629	1081.729
23	1068.681	1069.546	1071.039	1071.196	1071.825	1071.668	1072.690
24	1059.563	1060.978	1062.393	1061.843	1063.022	1063.179	1063.808
25	1050.524	1051.389	1052.332	1052.646	1053.196	1053.511	1053.825
26	1040.463	1041.249	1042.271	1042.114	1043.528	1043.450	1045.258
27	1030.245	1031.188	1031.738	1032.681	1033.074	1032.996	1033.703
28	1019.712	1019.948	1021.520	1022.148	1022.541	1022.699	1023.170
29	1008.236	1009.651	1011.458	1010.830	1012.323	1012.166	1012.402
30	997.310	999.354	1000.140	1000.140	1000.611	1001.240	1000.847
31	985.048	986.306	987.642	988.978	988.585	988.821	990.157
32	973.572	974.908	976.087	976.480	977.424	977.188	977.817
33	961.231	962.568	963.747	964.140	964.690	965.004	965.319
34	948.655	950.227	951.406	951.642	952.428	952.192	952.585
35	935.764	937.179	938.279	938.987	940.087	940.009	939.773
36	922.480	923.502	924.445	925.703	926.725	926.332	927.118

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

37	908.410	910.297	911.712	912.262	913.284	913.598	913.677
38	894.498	895.834	897.642	898.349	899.057	900.079	899.528
39	881.135	882.472	883.415	884.594	885.223	885.301	886.166
40	865.965	867.773	868.873	870.445	871.074	870.838	871.310
41	851.031	852.524	854.803	855.589	856.061	856.611	857.240
42	836.096	838.218	839.712	840.655	840.969	841.127	841.755
43	820.926	823.127	824.148	825.327	826.349	826.507	826.821
44	805.598	807.013	808.742	809.843	810.550	810.314	811.336
45	789.642	791.686	792.079	794.044	794.672	795.223	795.223
46	773.623	775.336	776.484	777.962	779.023	778.480	778.575
47	756.676	758.767	760.276	762.037	762.563	761.989	762.783
48	740.578	743.007	743.801	744.862	746.041	745.499	745.695
49	723.639	726.194	726.084	728.300	729.519	728.183	729.204
50	706.614	708.610	709.609	711.393	712.470	711.597	712.093
51	688.968	692.104	692.395	693.912	695.657	694.344	695.091
52	671.573	673.845	674.725	676.651	678.034	677.460	677.555
53	653.809	656.450	657.456	659.020	660.168	659.382	659.963
54	635.990	638.324	638.796	641.052	642.262	641.853	641.547
55	617.486	620.253	621.212	622.910	623.838	623.452	623.397
56	599.526	602.568	602.709	605.075	605.680	605.162	604.973
57	580.842	583.444	584.363	586.116	587.256	586.902	586.548
58	562.032	564.996	565.436	567.582	568.808	568.045	568.045
59	543.443	546.744	547.365	549.047	550.006	549.102	548.788
60	524.445	527.895	528.595	530.127	531.464	530.568	530.049
61	504.983	509.023	509.101	511.396	512.293	511.114	510.980
62	485.709	489.624	490.315	492.414	493.192	492.351	491.864
63	466.224	470.460	471.199	473.078	474.563	472.976	472.606
64	446.793	451.556	452.358	454.362	455.133	453.624	452.916
65	427.252	432.534	433.006	435.215	435.899	433.996	433.289
66	407.704	413.049	413.583	415.745	415.926	414.511	413.434
67	388.596	393.831	394.231	396.338	396.637	394.593	393.532
68	368.819	374.502	375.029	376.892	377.285	374.817	373.425
69	349.491	355.119	355.803	357.933	357.532	354.875	353.602
70	330.084	336.089	336.844	338.620	338.526	335.146	333.825
71	310.810	316.776	317.390	318.969	318.403	315.487	313.766
72	291.490	297.645	298.171	299.641	298.996	295.412	293.620
73	272.334	278.827	279.031	280.423	279.534	275.714	274.079
74	253.391	259.758	259.821	261.495	260.324	255.985	254.201
75	234.448	240.736	240.815	242.426	241.169	236.468	234.432
76	216.259	221.864	221.541	223.247	221.526	216.998	215.167
77	197.528	202.685	201.655	204.076	202.355	197.961	195.548
78	179.159	183.647	182.594	184.708	183.435	178.970	176.934
79	161.206	164.633	163.627	165.820	164.712	160.530	158.612
80	143.230	146.429	145.297	146.806	145.871	142.986	140.746
81	124.986	127.918	127.431	128.500	127.478	125.277	123.430
82	106.845	109.997	109.399	110.232	109.399	108.157	106.318
83	89.238	92.334	92.114	92.531	91.493	91.336	89.607
84	72.394	75.553	74.979	75.408	74.565	75.183	73.699
85	55.637	58.546	58.566	58.385	58.043	59.040	58.369
86	39.965	42.555	42.791	42.486	42.567	43.525	43.911
87	24.374	26.385	27.009	26.842	27.452	28.637	29.537
88	11.268	12.335	12.580	12.812	13.663	15.080	16.185
89	1.547	1.773	1.226	1.780	2.482	3.281	4.307
90	0.032	0.032	0.208	0.193	0.322	0.129	0.128
91	0.000	0.000	0.131	0.065	0.193	0.000	0.000
92	0.000	0.000	0.002	0.064	0.129	0.000	0.000

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

93	0.000	0.000	0.000	0.000	0.065	0.000	0.000
94	0.000	0.000	0.000	0.000	0.063	0.000	0.000
95	0.000	0.000	0.000	0.000	0.001	0.000	0.000
96	0.000	0.000	0.000	0.000	0.065	0.000	0.000
97	0.000	0.000	0.000	0.000	0.065	0.000	0.000
98	0.000	0.000	0.000	0.000	0.065	0.000	0.000
99	0.000	0.000	0.000	0.000	0.065	0.065	0.000
100	0.000	0.000	0.000	0.000	0.065	0.065	0.000
101	0.000	0.000	0.000	0.000	0.065	0.065	0.000
102	0.000	0.000	0.000	0.000	0.065	0.065	0.000
103	0.064	0.000	0.000	0.000	0.065	0.065	0.000
104	0.065	0.127	0.000	0.000	0.065	0.065	0.000
105	0.193	0.194	0.000	0.002	0.065	0.065	0.000
106	0.130	0.259	0.000	0.065	0.065	0.065	0.000
107	0.320	0.323	0.063	0.066	0.066	0.065	0.065
108	0.324	0.324	0.128	0.131	0.130	0.065	0.066
109	0.387	0.387	0.194	0.261	0.132	0.065	0.130
110	0.453	0.452	0.320	0.324	0.195	0.065	0.130
111	0.454	0.454	0.261	0.390	0.195	0.065	0.130
112	0.517	0.454	0.387	0.521	0.196	0.065	0.133
113	0.519	0.519	0.516	0.648	0.261	0.065	0.258
114	0.519	0.582	0.778	0.648	0.389	0.065	0.195
115	0.519	0.647	0.778	0.778	0.389	0.065	0.196
116	0.645	0.711	0.841	0.778	0.389	0.065	0.323
117	0.649	0.713	0.843	0.842	0.389	0.065	0.259
118	0.649	0.713	0.906	0.842	0.390	0.065	0.259
119	0.649	0.776	0.908	0.842	0.521	0.065	0.259
120	0.649	0.843	0.908	0.844	0.584	0.260	0.262
121	0.649	0.843	0.908	0.971	0.649	0.583	0.459
122	0.649	0.906	0.908	0.907	0.715	0.714	0.782
123	0.649	0.908	0.908	0.907	0.777	0.778	0.907
124	0.649	0.908	0.908	0.907	0.713	0.843	0.843
125	0.649	0.908	0.908	0.907	0.713	0.843	0.843
126	0.649	0.908	0.908	0.907	0.713	0.843	0.845
127	0.649	0.908	0.908	0.907	0.713	0.845	0.908
128	0.649	0.908	0.908	0.907	0.713	0.972	0.908
129	0.649	0.908	0.908	0.907	0.713	0.908	0.908
130	0.649	0.908	0.908	0.907	0.713	0.908	0.908
131	0.649	0.908	0.908	0.907	0.713	0.908	0.908
132	0.649	0.908	0.908	0.907	0.713	0.908	0.908
133	0.649	0.908	0.908	0.907	0.713	0.908	0.909
134	0.649	0.908	0.908	0.907	0.713	0.908	0.973
135	0.649	0.908	0.908	0.907	0.712	0.908	0.973
136	0.649	0.908	0.908	0.907	0.645	0.908	0.973
137	0.649	0.908	0.908	0.907	0.519	0.908	0.973
138	0.649	0.908	0.908	0.907	0.516	0.908	0.973
139	0.649	0.908	0.908	0.907	0.389	0.908	0.973
140	0.649	0.908	0.908	0.907	0.324	0.908	0.973
141	0.649	0.908	0.972	0.907	0.320	0.908	0.973
142	0.713	0.908	0.909	0.907	0.193	0.908	0.973
143	0.713	0.908	1.037	0.907	0.130	0.908	0.975
144	0.713	0.908	0.974	0.907	0.129	0.908	1.037
145	0.713	0.908	0.973	0.908	0.064	0.908	0.972
146	0.777	0.908	0.973	0.968	0.000	0.908	0.908
147	0.778	0.908	0.973	0.842	0.000	0.908	0.908
148	0.843	0.908	0.973	0.839	0.000	0.844	0.908

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

149	0.843	0.908	0.973	0.714	0.000	0.778	0.908
150	0.972	0.908	0.973	0.774	0.000	0.777	0.908
151	1.036	0.908	0.973	0.647	0.000	0.713	0.908
152	1.101	0.908	0.973	0.583	0.000	0.714	0.908
153	1.103	0.908	1.037	0.583	0.000	0.777	0.908
154	1.103	0.844	0.911	0.583	0.000	0.713	0.908
155	1.103	0.779	0.843	0.585	0.000	0.648	0.908
156	1.103	0.778	0.843	0.647	0.000	0.648	0.908
157	1.103	0.587	0.843	0.582	0.000	0.648	0.908
158	1.103	0.457	0.716	0.518	0.000	0.648	0.908
159	1.103	0.390	0.713	0.517	0.000	0.648	0.908
160	1.103	0.261	0.713	0.454	0.000	0.650	0.908
161	1.103	0.259	0.713	0.454	0.000	0.713	0.908
162	1.103	0.196	0.713	0.454	0.000	0.584	0.908
163	1.103	0.195	0.713	0.454	0.000	0.584	0.908
164	1.103	0.195	0.778	0.454	0.000	0.584	0.908
165	1.103	0.195	0.778	0.455	0.000	0.584	0.909
166	1.103	0.195	0.778	0.585	0.000	0.649	0.973
167	1.103	0.195	0.842	0.650	0.000	0.713	0.973
168	1.103	0.195	0.972	0.780	0.000	0.971	0.973
169	1.103	0.195	0.973	0.844	0.000	0.908	0.973
170	1.103	0.195	0.973	0.907	0.000	0.908	0.973
171	1.103	0.195	0.973	0.907	0.000	0.908	0.973
172	1.103	0.195	0.973	0.907	0.000	0.908	0.974
173	1.103	0.131	0.973	0.907	0.000	0.908	1.038
174	1.103	0.130	0.973	0.907	0.000	0.908	1.103
175	1.103	0.130	0.973	0.907	0.000	0.908	1.103
176	1.103	0.130	0.973	0.907	0.000	0.908	1.103
177	1.103	0.130	0.973	0.907	0.000	0.908	1.103
178	1.103	0.067	0.973	0.908	0.000	0.908	1.103
179	1.103	0.065	0.973	0.974	0.000	0.908	1.103
180	1.103	1.103	1.103	1.103	1.103	1.103	1.103



**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	430.48	N.A.	12.60
0-30	915.49	N.A.	26.80
0-40	1502.46	N.A.	43.90
0-60	2669.2	N.A.	78.10
0-80	3348.59	N.A.	97.90
0-90	3416.41	N.A.	99.90
10-90	3305.12	N.A.	96.70
20-40	1071.98	N.A.	31.30
20-50	1683.46	N.A.	49.20
40-70	1594.2	N.A.	46.60
60-80	679.38	N.A.	19.90
70-80	251.92	N.A.	7.40
80-90	67.82	N.A.	2.00
90-110	0.11	N.A.	0.00
90-120	0.58	N.A.	0.00
90-130	1.32	N.A.	0.00
90-150	2.58	N.A.	0.10
90-180	3.23	N.A.	0.10
110-180	3.12	N.A.	0.10
0-180	3419.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	111.29
10-20	319.19
20-30	485.01
30-40	586.97
40-50	611.47
50-60	555.27
60-70	427.46
70-80	251.92
80-90	67.82
90-100	0.02
100-110	0.09
110-120	0.47
120-130	0.73
130-140	0.71
140-150	0.54
150-160	0.37
160-170	0.20
170-180	0.08

**IES INDOOR REPORT**  
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**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	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	33	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : BP-22-LS-8CS-DIM-UNV\_30W\_5000K.IES**

**UGR TABLE - CORRECTED**

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size      UGR Viewed Crosswise

X=2H	Y=2H	16.8	18.4	17.1	18.7	19.0	UGR Viewed Endwise	16.8	18.4	17.1	18.7	19.1
	3H	18.6	20.1	19.0	20.4	20.8		18.7	20.2	19.0	20.5	20.8
	4H	19.3	20.7	19.7	21.1	21.4		19.4	20.8	19.8	21.2	21.5
	6H	19.8	21.1	20.2	21.5	21.9		20.0	21.3	20.4	21.6	22.0
	8H	20.0	21.2	20.4	21.6	22.0		20.2	21.4	20.6	21.8	22.2
	12H	20.1	21.3	20.5	21.6	22.1		20.3	21.5	20.7	21.9	22.3

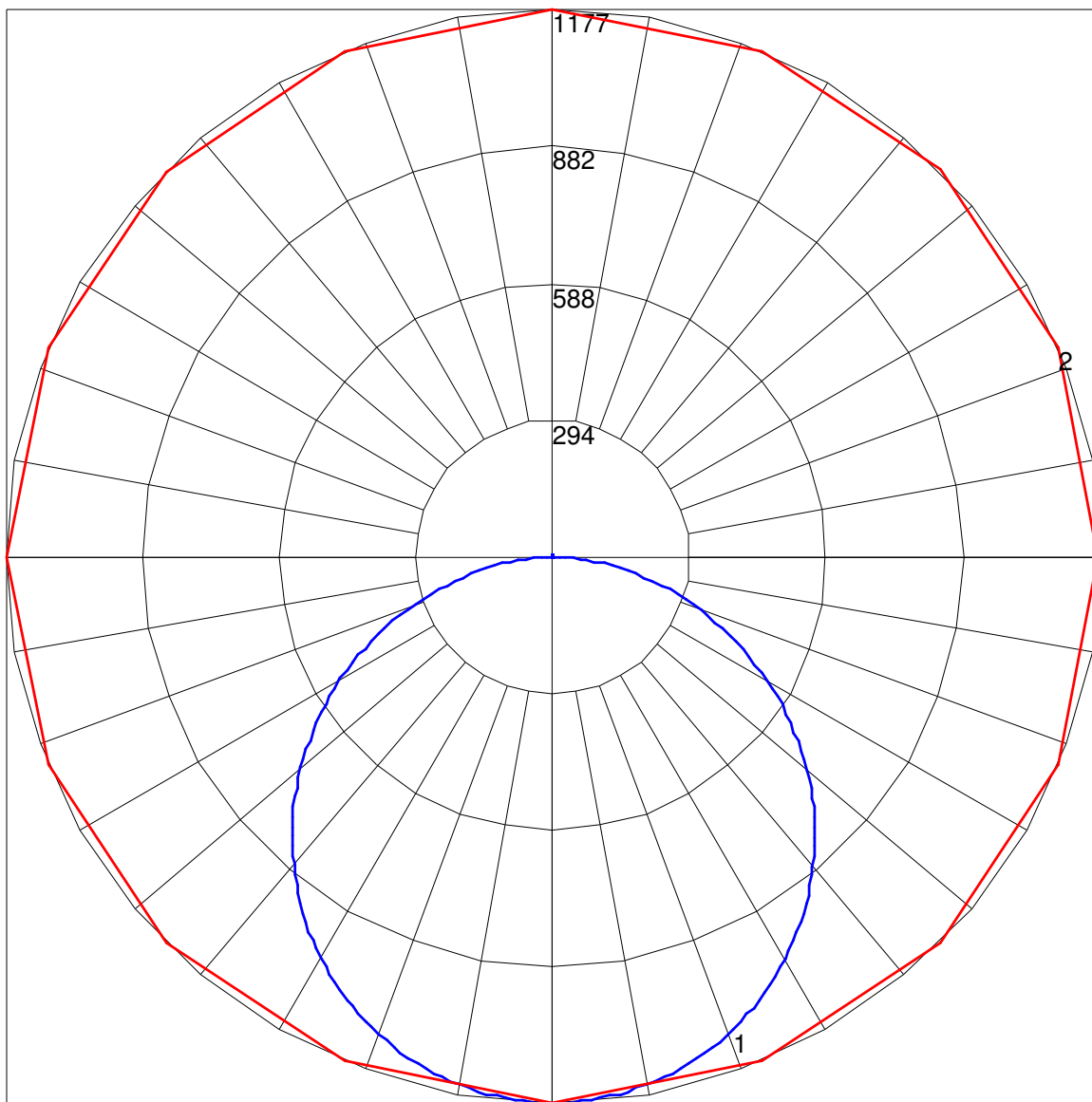
4H	2H	17.4	18.8	17.8	19.2	19.5	17.4	18.8	17.8	19.2	19.6
	3H	19.5	20.7	19.9	21.1	21.5	19.5	20.7	19.9	21.1	21.5
	4H	20.3	21.4	20.7	21.8	22.2	20.4	21.5	20.8	21.9	22.3
	6H	20.9	21.9	21.4	22.3	22.8	21.1	22.1	21.6	22.5	22.9
	8H	21.2	22.0	21.6	22.5	22.9	21.4	22.2	21.8	22.7	23.1
	12H	21.3	22.1	21.8	22.6	23.0	21.5	22.3	22.0	22.8	23.3

8H	4H	20.7	21.5	21.1	22.0	22.4	20.8	21.6	21.2	22.1	22.5
	6H	21.4	22.1	21.9	22.6	23.1	21.6	22.3	22.0	22.8	23.3
	8H	21.7	22.4	22.2	22.9	23.3	21.9	22.5	22.4	23.0	23.5
	12H	21.9	22.5	22.4	23.0	23.5	22.1	22.7	22.6	23.2	23.8

12H	4H	20.7	21.5	21.2	22.0	22.4	20.8	21.6	21.3	22.0	22.5
	6H	21.5	22.2	22.0	22.6	23.2	21.6	22.3	22.2	22.8	23.3
	8H	21.8	22.4	22.3	22.9	23.5	22.0	22.6	22.5	23.1	23.6

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 1176.603 Located At Horizontal Angle = 315, Vertical Angle = 1  
# 1 - Vertical Plane Through Horizontal Angles (315 - 135) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)