



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BS400LEDHTHOWT50120-277V_S.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TESTLAB] Photopia 2017.2.1 see: www.ltioptics.com/ies
 [ISSUE DATE]
 [TEST DATE] Mon Feb 05 12:54:26 2018
 [TEST] 1
 [MANUFAC] BEGHELLI
 [LUMCAT]
 [LUMINAIRE] BS400LEDHTHOWT50120-277V
 [LAMP] LED 0.195W White 5630 package (65mA)
 [LAMPCAT] SPMWHT541MP5WAT0S5
 [OTHER]
 IESNA:LM-63-2002
 [TEST] 6,552
 [TESTLAB] CSA Group
 [ISSUE DATE] 7/24/2013 1:09:24 PM
 [MANUFAC] Beghelli
 [LUMINAIRE] BS100LEDDLC4HT50WWT41120-277V
 [OTHER] Luminous shape: Rectangle
 [OTHER] Luminous dimensions (feet)
 0 - 180 Axis: 4.2
 90 - 270 Axis: 0.6
 [OTHER] Height: 0.1

CHARACTERISTICS

Lumens Per Lamp	50.74 (192 lamps)
Total Lamp Lumens	9742.08
Luminaire Lumens	7282
Total Luminaire Efficiency	75 %
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	60
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.82
Spacing Criterion (90-270)	1.84
Spacing Criterion (Diagonal)	1.98
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	1.45 ft
Luminous Width (90-270)	1.45 ft
Luminous Height	0.27 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6978	6872	6961
55	8217	7548	8202
65	9911	8568	9925
75	11496	9609	11351
85	12654	10251	12686

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CANDELA TABULATION

	0	5	10	15	20	25	30	35	40	45
0.0	929.98	929.98	929.98	929.98	929.98	929.98	929.98	929.98	929.98	929.98
2.5	930.65	935.81	938.27	913.72	958.50	930.87	942.71	940.26	952.87	904.69
5.0	954.74	952.40	958.46	949.51	946.38	958.29	950.55	949.09	947.29	928.63
7.5	950.35	962.80	961.52	969.00	957.40	974.79	977.83	955.35	956.07	955.43
10.0	982.25	981.49	971.00	984.68	994.92	973.35	979.42	983.82	978.54	985.83
12.5	1005.44	1005.48	1001.03	1003.04	1016.63	1006.39	1015.29	1005.78	1015.98	1012.06
15.0	1041.52	1023.07	1036.71	1031.30	1035.23	1037.17	1036.38	1035.54	1034.04	1036.61
17.5	1050.67	1059.91	1052.75	1047.02	1058.73	1058.48	1071.09	1076.67	1062.91	1064.55
20.0	1065.81	1073.78	1080.53	1072.10	1080.11	1083.77	1093.58	1095.61	1090.99	1101.59
22.5	1100.30	1090.20	1088.79	1093.06	1101.69	1106.76	1108.53	1120.91	1125.28	1120.22
25.0	1109.89	1101.11	1113.97	1110.94	1125.75	1131.07	1139.75	1144.87	1158.24	1144.20
27.5	1099.46	1111.15	1118.67	1128.72	1141.83	1145.62	1155.48	1165.93	1175.48	1180.18
30.0	1112.72	1118.41	1127.68	1131.41	1144.11	1158.50	1170.77	1173.79	1182.07	1185.19
32.5	1112.79	1123.51	1135.55	1138.54	1162.69	1165.45	1177.40	1185.01	1191.16	1193.19
35.0	1132.95	1127.64	1138.86	1146.76	1158.09	1176.05	1186.50	1193.45	1209.45	1200.26
37.5	1141.86	1140.26	1149.10	1151.77	1162.54	1175.95	1186.24	1206.19	1206.37	1211.22
40.0	1142.97	1142.87	1151.57	1160.91	1170.21	1188.30	1198.28	1202.82	1199.82	1213.26
42.5	1139.07	1150.23	1154.69	1162.05	1172.68	1181.98	1195.60	1202.09	1194.04	1213.31
45.0	1150.88	1156.24	1156.06	1161.77	1183.37	1182.56	1194.08	1198.70	1204.03	1207.44
47.5	1153.01	1153.32	1163.68	1173.58	1180.21	1183.81	1187.43	1190.97	1193.98	1194.40
50.0	1170.44	1160.90	1163.88	1175.46	1175.79	1185.26	1180.74	1185.43	1192.96	1194.31
52.5	1168.44	1170.49	1172.05	1179.65	1177.63	1178.14	1190.04	1179.84	1183.15	1182.37
55.0	1173.49	1172.17	1172.92	1174.59	1176.75	1180.29	1183.16	1176.08	1172.36	1172.11
57.5	1169.05	1176.13	1174.38	1172.62	1174.85	1177.14	1167.03	1173.07	1168.81	1162.92
60.0	1168.09	1172.58	1169.82	1170.44	1166.81	1168.18	1160.97	1158.26	1156.24	1151.85
62.5	1173.52	1167.68	1173.25	1164.75	1162.33	1157.86	1152.28	1147.26	1142.84	1140.11
65.0	1153.09	1156.25	1160.41	1148.84	1149.17	1142.34	1130.68	1130.91	1119.50	1115.11
67.5	1125.88	1126.28	1124.05	1130.35	1128.35	1112.56	1111.81	1095.97	1093.75	1097.52
70.0	1092.59	1094.85	1098.11	1091.44	1089.96	1079.61	1079.27	1065.20	1066.69	1063.37
72.5	1047.53	1048.05	1049.15	1054.33	1051.36	1039.91	1039.49	1028.68	1026.67	1023.98
75.0	992.67	994.47	995.73	997.40	994.16	993.57	983.32	982.23	980.78	970.98
77.5	928.74	925.44	927.21	932.41	937.40	934.20	925.27	921.99	915.11	915.89
80.0	845.63	849.69	855.62	858.54	857.18	860.20	861.50	850.60	853.67	852.36
82.5	761.55	769.12	771.39	777.95	781.70	783.78	783.40	781.47	782.35	780.31
85.0	679.86	687.52	693.11	698.97	696.09	703.63	709.55	702.89	707.50	706.22
87.5	607.29	611.17	606.93	610.61	617.51	623.69	623.44	626.92	627.43	627.68
90.0	525.47	531.71	532.80	534.95	539.80	545.26	548.01	548.12	551.74	556.28
92.5	458.73	461.97	460.59	459.95	465.35	470.42	472.67	474.87	479.56	477.20
95.0	404.43	395.09	397.40	396.24	398.50	399.76	405.62	408.89	409.50	406.96
97.5	343.46	340.75	339.72	336.96	336.75	338.24	343.67	340.97	345.89	347.01
100.0	290.81	289.61	285.67	284.00	280.41	280.74	283.40	283.54	286.53	285.20
102.5	244.66	244.16	241.52	236.89	231.37	231.45	232.77	232.18	232.55	232.61
105.0	207.00	204.42	203.13	195.49	192.77	187.14	188.98	186.75	189.87	186.11
107.5	172.30	169.09	166.46	160.82	155.97	151.57	150.99	147.05	146.20	148.46
110.0	139.93	139.92	135.01	130.61	125.18	119.60	115.71	114.23	115.59	113.19
112.5	112.99	111.93	110.63	105.74	99.72	92.50	89.63	87.99	85.36	84.03
115.0	90.74	89.47	87.13	83.56	77.65	72.82	67.78	62.89	62.69	61.57
117.5	72.13	69.01	68.25	63.85	60.68	54.54	48.72	44.05	44.50	42.87
120.0	53.72	54.87	51.35	49.89	45.87	40.45	35.26	30.95	28.78	27.83
122.5	41.84	40.50	38.62	36.48	32.60	29.73	23.51	19.68	17.05	16.61
125.0	30.73	28.95	28.26	26.58	23.20	20.27	17.17	13.11	10.03	8.15
127.5	21.30	20.06	19.31	17.56	15.72	13.07	10.63	7.88	4.81	3.70
130.0	14.39	12.70	13.04	11.48	9.92	8.18	5.45	3.55	2.73	2.88
132.5	8.75	8.19	8.00	6.62	5.48	3.94	2.64	2.38	2.22	2.37

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CANDELA TABULATION - (Cont.)

135.0	4.33	4.37	3.71	3.09	2.48	2.16	2.34	2.15	1.82	2.09
137.5	2.37	2.01	1.99	2.11	2.14	2.00	2.06	1.86	2.09	1.89
140.0	1.91	1.95	1.99	1.68	1.77	1.94	1.75	1.94	1.96	1.97
142.5	1.57	1.58	1.43	1.48	1.68	1.62	1.73	1.60	1.64	1.45
145.0	1.91	1.41	1.40	1.55	1.56	1.66	1.59	1.45	1.47	1.39
147.5	1.44	1.40	1.23	1.10	1.27	1.34	1.56	1.49	1.38	1.14
150.0	1.05	0.94	1.12	0.91	1.22	1.17	1.24	1.07	1.10	1.03
152.5	1.19	1.03	1.00	0.91	0.90	0.83	1.06	0.91	1.11	1.24
155.0	0.92	0.81	0.62	0.88	0.75	0.75	0.76	0.86	0.73	0.99
157.5	0.71	0.56	0.60	0.63	0.57	0.81	0.69	0.84	0.97	0.72
160.0	0.99	0.65	0.61	0.51	0.59	0.69	0.41	0.30	0.57	0.65
162.5	0.50	0.44	0.44	0.52	0.45	0.39	0.31	0.37	0.40	0.35
165.0	0.42	0.27	0.24	0.46	0.28	0.20	0.34	0.25	0.50	0.28
167.5	0.22	0.24	0.17	0.09	0.14	0.08	0.13	0.25	0.12	0.16
170.0	0.17	0.05	0.04	0.07	0.06	0.05	0.04	0.05	0.16	0.23
172.5	0.00	0.14	0.10	0.19	0.01	0.16	0.11	0.25	0.09	0.06
175.0	0.00	0.00	0.07	0.07	0.03	0.14	0.01	0.08	0.24	0.08
177.5	0.33	0.00	0.00	0.00	0.00	0.17	0.09	0.00	0.00	0.11
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Vert.
Angles**

Horizontal Angles

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>
0.0	929.98	929.98	929.98	929.98	929.98	929.98	929.98	929.98	929.98
2.5	941.20	961.25	935.11	957.32	927.43	922.17	953.09	929.77	960.98
5.0	939.48	950.93	955.41	954.80	947.92	944.01	953.88	939.54	957.32
7.5	964.83	951.00	977.82	968.03	952.34	961.66	964.39	976.47	955.10
10.0	984.96	977.98	979.22	982.60	984.94	981.04	971.16	993.57	977.09
12.5	1015.69	1012.55	993.24	1006.32	997.47	1003.28	1009.53	1005.77	1025.89
15.0	1034.81	1022.63	1025.81	1033.31	1033.08	1023.14	1035.64	1022.17	1024.68
17.5	1066.37	1071.29	1064.85	1049.97	1044.20	1052.94	1047.38	1048.62	1054.23
20.0	1087.81	1097.88	1087.66	1085.82	1089.38	1082.40	1077.03	1067.76	1060.61
22.5	1133.78	1120.51	1107.77	1101.84	1101.29	1088.05	1092.84	1094.84	1080.32
25.0	1147.98	1136.82	1137.54	1130.08	1121.34	1104.96	1098.58	1107.01	1094.91
27.5	1164.99	1161.87	1157.83	1145.48	1132.93	1118.36	1117.53	1114.87	1104.72
30.0	1181.93	1173.41	1171.93	1152.17	1144.88	1129.87	1132.16	1120.69	1117.16
32.5	1194.99	1189.47	1181.31	1165.23	1155.84	1146.85	1134.80	1131.19	1119.26
35.0	1205.42	1195.56	1186.95	1181.43	1155.65	1152.42	1144.96	1134.15	1130.79
37.5	1201.40	1196.79	1189.57	1183.16	1164.68	1153.98	1144.60	1142.04	1137.17
40.0	1208.01	1207.65	1195.32	1181.10	1175.69	1169.13	1152.34	1140.67	1155.17
42.5	1201.68	1198.82	1189.20	1186.30	1179.58	1167.36	1157.87	1155.36	1150.91
45.0	1199.90	1196.15	1198.56	1195.34	1178.21	1174.65	1150.70	1150.99	1148.11
47.5	1202.93	1189.03	1195.87	1180.96	1176.62	1171.10	1168.36	1158.37	1160.66
50.0	1189.08	1192.10	1195.53	1191.75	1185.28	1172.74	1177.83	1161.73	1162.12
52.5	1184.28	1183.60	1179.03	1182.91	1180.20	1174.09	1172.37	1167.59	1176.39
55.0	1175.11	1177.76	1182.41	1188.32	1183.95	1178.51	1179.06	1173.38	1171.32
57.5	1161.71	1169.90	1170.73	1176.63	1182.96	1184.21	1180.96	1170.50	1185.19
60.0	1154.29	1155.84	1160.72	1166.34	1174.20	1176.89	1173.65	1174.32	1181.26
62.5	1144.58	1142.35	1151.13	1155.43	1166.09	1164.26	1166.12	1166.38	1160.26
65.0	1112.88	1126.00	1129.60	1143.34	1146.17	1154.43	1150.83	1153.14	1154.73
67.5	1090.45	1094.15	1109.07	1115.44	1118.49	1130.24	1124.69	1129.21	1137.23
70.0	1061.66	1061.53	1075.72	1084.12	1090.71	1086.19	1087.18	1091.06	1079.16
72.5	1023.21	1027.99	1034.64	1039.16	1042.78	1045.55	1040.27	1047.49	1035.65
75.0	975.23	977.33	984.89	987.87	985.54	990.51	985.67	990.16	980.14
77.5	917.80	921.55	923.14	923.62	922.02	925.46	922.22	918.28	918.37
80.0	846.25	851.20	857.16	855.73	851.40	847.94	844.05	839.00	835.80

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CANDELA TABULATION - (Cont.)

82.5	775.04	782.94	778.67	774.90	778.13	778.68	768.04	759.59	762.11
85.0	709.51	703.03	706.13	699.59	695.30	694.28	686.47	680.23	681.58
87.5	626.13	624.44	622.57	624.08	615.39	609.81	602.92	601.07	602.53
90.0	549.18	548.66	541.87	544.14	538.70	534.43	527.83	523.53	526.16
92.5	481.99	476.04	473.56	472.06	463.19	463.91	459.77	457.96	454.86
95.0	405.96	407.33	403.67	402.41	395.32	393.51	394.66	396.71	393.32
97.5	344.78	342.55	339.90	339.32	337.41	332.74	335.10	339.44	341.92
100.0	284.28	283.45	283.18	282.68	281.89	282.54	287.25	287.58	289.76
102.5	235.49	233.62	231.92	231.88	232.08	235.42	239.39	246.14	246.94
105.0	188.52	186.14	188.72	189.66	190.84	195.33	202.07	204.43	205.85
107.5	145.91	148.25	148.05	150.43	157.37	161.61	167.34	171.81	172.28
110.0	113.45	115.11	116.39	120.83	124.57	130.43	137.23	139.60	133.88
112.5	84.67	87.03	89.63	93.72	99.35	105.14	108.20	113.09	111.04
115.0	61.42	63.41	66.68	71.38	79.56	84.43	87.50	89.72	88.58
117.5	42.22	44.90	49.02	55.83	61.04	65.82	67.53	71.16	69.24
120.0	28.16	31.28	35.33	39.74	45.61	49.32	51.36	54.16	55.19
122.5	16.97	20.98	24.75	30.11	33.89	36.09	38.67	41.45	40.93
125.0	9.64	13.54	16.49	21.30	23.19	26.21	28.44	29.30	30.96
127.5	5.33	7.71	10.80	14.62	17.14	17.92	20.39	21.32	20.39
130.0	2.56	3.96	5.91	8.04	10.31	12.32	12.88	14.11	13.35
132.5	2.51	2.21	2.94	4.19	5.74	6.66	7.99	8.44	8.64
135.0	2.17	2.30	2.19	2.33	2.75	3.15	3.60	4.36	4.37
137.5	2.09	1.75	1.91	2.41	1.93	1.87	1.84	1.97	1.93
140.0	2.04	1.85	1.79	1.96	1.85	2.00	1.76	1.80	1.64
142.5	1.77	1.54	1.71	1.86	1.64	1.60	1.74	1.79	2.09
145.0	1.34	1.62	1.53	1.56	1.36	1.47	1.68	1.37	1.71
147.5	1.43	1.24	1.18	1.01	1.09	1.29	1.16	1.21	1.16
150.0	1.27	1.22	1.16	1.08	1.09	1.22	1.20	1.27	0.93
152.5	1.01	1.08	1.04	0.79	0.84	0.93	0.90	0.94	1.06
155.0	0.73	0.78	0.96	0.76	0.75	0.83	0.87	0.74	0.93
157.5	0.69	0.77	0.70	0.63	0.67	0.55	0.71	0.73	0.80
160.0	0.73	0.54	0.67	0.55	0.58	0.59	0.56	0.53	0.33
162.5	0.38	0.40	0.51	0.57	0.41	0.35	0.60	0.45	0.27
165.0	0.28	0.26	0.23	0.35	0.34	0.31	0.22	0.32	0.57
167.5	0.23	0.22	0.25	0.13	0.30	0.21	0.23	0.23	0.10
170.0	0.15	0.25	0.11	0.20	0.18	0.17	0.10	0.13	0.11
172.5	0.00	0.04	0.18	0.05	0.22	0.07	0.07	0.06	0.09
175.0	0.11	0.00	0.06	0.00	0.09	0.03	0.02	0.08	0.00
177.5	0.00	0.00	0.00	0.18	0.00	0.15	0.00	0.02	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	385.79	4.00	5.30
0-30	906.13	9.30	12.40
0-40	1639.17	16.80	22.50
0-60	3606.88	37.00	49.50
0-80	5766.62	59.20	79.20
0-90	6526.39	67.00	89.60
10-90	6434.79	66.10	88.40
20-40	1253.38	12.90	17.20
20-50	2166.54	22.20	29.80
40-70	3092.67	31.70	42.50
60-80	2159.74	22.20	29.70
70-80	1034.78	10.60	14.20
80-90	759.77	7.80	10.40
90-110	652.47	6.70	9.00
90-120	730.79	7.50	10.00
90-130	751.22	7.70	10.30
90-150	755.16	7.80	10.40
90-180	755.66	7.80	10.40
110-180	103.19	1.10	1.40
0-180	7282.05	74.70	100.00

Total Luminaire Efficiency = 74.70%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	91.60
10-20	294.19
20-30	520.34
30-40	733.04
40-50	913.16
50-60	1054.55
60-70	1124.96
70-80	1034.78
80-90	759.77
90-100	442.68
100-110	209.80
110-120	78.32
120-130	20.43
130-140	3.00
140-150	0.94
150-160	0.39
160-170	0.10
170-180	0.01

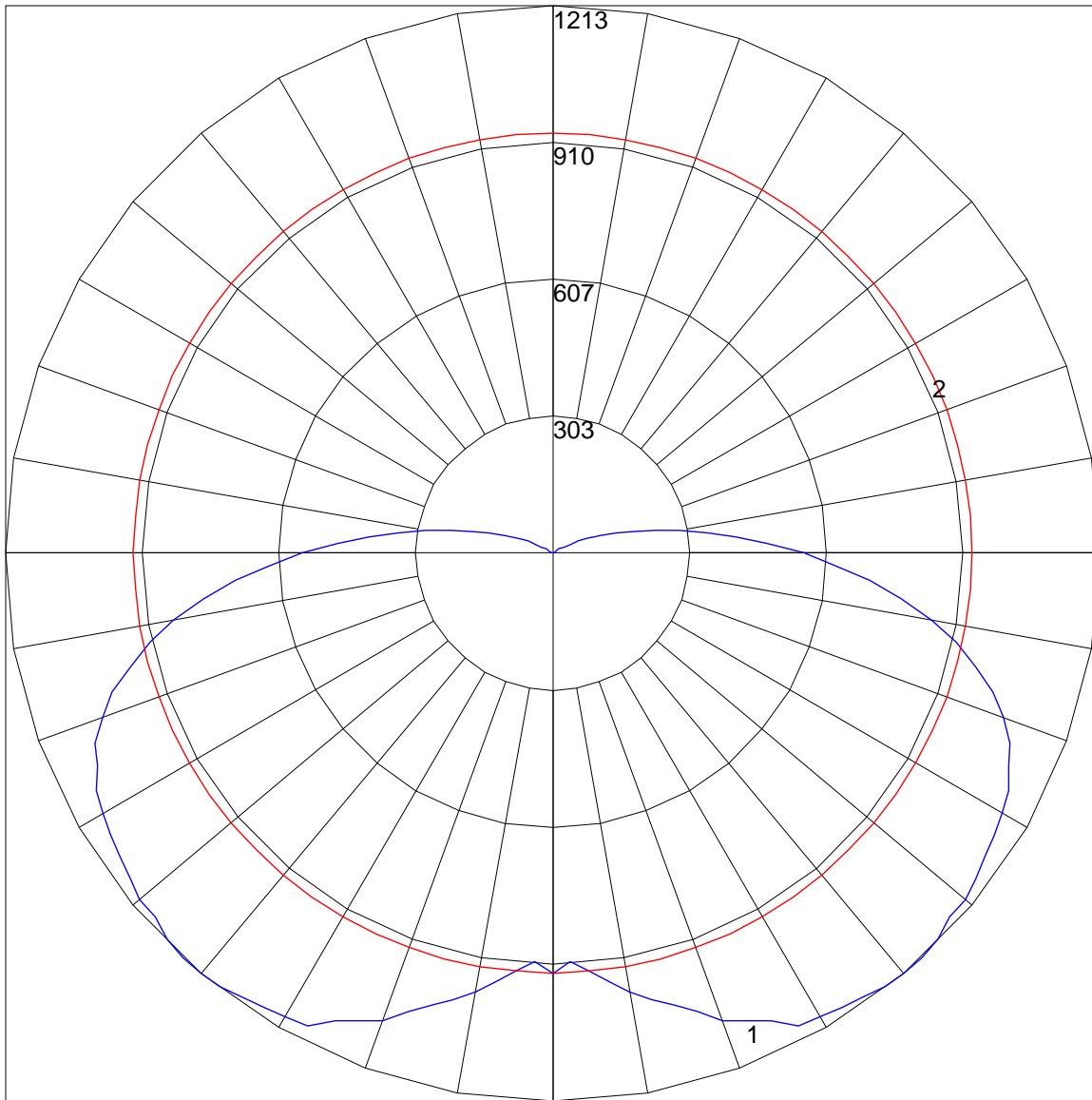
IES INDOOR REPORT
PHOTOMETRIC FILENAME : BS400LEDHTHOWT50120-277V_S.IES

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	87	87	87	87	84	84	84	84	79	79	79	74	74	74	69	69	69	67
1	75	70	66	61	72	68	63	60	63	59	56	59	56	53	55	52	50	48
2	67	59	52	46	64	57	50	45	52	47	43	49	44	41	45	42	39	36
3	60	50	42	36	57	48	41	35	45	39	34	41	36	32	38	34	31	28
4	54	43	35	29	52	42	34	29	39	32	27	36	31	26	33	29	25	23
5	49	38	30	24	47	37	29	24	34	28	23	32	26	22	29	25	21	19
6	45	34	26	21	43	33	25	20	30	24	19	28	23	19	26	22	18	16
7	42	30	23	18	40	29	22	17	27	21	17	25	20	16	24	19	15	14
8	38	27	20	15	37	26	20	15	25	19	15	23	18	14	22	17	13	12
9	36	25	18	14	34	24	18	13	23	17	13	21	16	12	20	15	12	10
10	33	23	16	12	32	22	16	12	21	15	11	20	15	11	18	14	11	9

POLAR GRAPH



Maximum Candela = 1213.31 Located At Horizontal Angle = 45, Vertical Angle = 42.5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0)