



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BS400LEDHTHOWT40120-277V_S.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TESTLAB] Photopia 2017.2.1 see: www.ltioptics.com/ies
 [ISSUEDATE]
 [TESTDATE] Mon Feb 05 12:10:04 2018
 [TEST] 1
 [MANUFAC] BEGHELLI
 [LUMCAT]
 [LUMINAIRE] BS400LEDHTHOWT40120-277V
 [LAMP] LED 0.195W White 5630 package (65mA)
 [LAMPCAT] SPMWHT541MP5WAT0S5
 [OTHER]
 IESNA:LM-63-2002
 [TEST] 6,552
 [TESTLAB] CSA Group
 [ISSUEDATE] 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	50.39 (192 lamps)
Total Lamp Lumens	9674.88
Luminaire Lumens	7233
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)	1.82
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	6917	6809	6983
55	8191	7491	8244
65	9866	8520	9786
75	11457	9563	11310
85	12667	10221	12691

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CANDELA TABULATION

	0	5	10	15	20	25	30	35	40	45
0.0	929.51	929.51	929.51	929.51	929.51	929.51	929.51	929.51	929.51	929.51
2.5	930.23	929.61	933.71	942.47	930.42	926.49	919.41	911.65	925.26	931.12
5.0	926.25	938.25	949.11	950.09	941.96	946.50	933.36	936.35	939.14	943.14
7.5	957.51	950.31	960.93	954.54	953.07	953.87	953.16	950.32	953.75	954.97
10.0	995.92	968.55	974.88	978.26	970.40	974.25	968.10	972.92	974.70	972.46
12.5	990.30	1005.26	1001.41	1000.94	999.72	1011.87	994.45	1011.05	997.99	987.30
15.0	1011.80	1022.90	1022.79	1027.68	1040.26	1014.97	1033.44	1022.99	1034.15	1024.22
17.5	1045.07	1039.30	1051.34	1046.53	1049.41	1052.36	1061.17	1058.85	1056.54	1060.25
20.0	1055.35	1061.91	1066.90	1065.06	1079.78	1080.97	1088.12	1081.59	1085.81	1091.82
22.5	1068.24	1084.30	1088.91	1092.44	1092.09	1098.47	1106.02	1110.12	1117.08	1125.18
25.0	1094.98	1094.92	1101.09	1109.50	1109.18	1116.61	1136.59	1141.02	1138.96	1142.18
27.5	1112.45	1113.89	1108.17	1118.17	1122.01	1129.18	1149.76	1159.62	1164.77	1156.18
30.0	1106.34	1117.22	1120.78	1124.95	1130.12	1148.57	1165.39	1169.21	1168.03	1168.98
32.5	1111.27	1122.86	1120.90	1132.32	1151.64	1154.58	1171.49	1180.83	1181.42	1184.47
35.0	1116.02	1121.30	1129.13	1140.20	1155.37	1170.51	1180.09	1189.28	1194.42	1198.16
37.5	1133.08	1129.22	1132.48	1147.30	1152.51	1173.58	1184.22	1195.58	1194.58	1199.74
40.0	1138.47	1138.67	1143.77	1148.68	1163.57	1171.55	1181.71	1194.14	1198.50	1197.79
42.5	1135.26	1137.54	1146.67	1155.50	1167.73	1177.32	1180.88	1197.11	1192.91	1198.92
45.0	1140.87	1154.45	1157.94	1156.22	1171.03	1175.20	1188.56	1187.91	1190.56	1196.31
47.5	1149.62	1147.64	1154.14	1160.85	1175.49	1180.83	1189.05	1183.75	1189.92	1187.24
50.0	1168.80	1150.86	1158.29	1162.87	1171.34	1178.23	1176.87	1181.96	1183.50	1183.82
52.5	1158.63	1159.21	1163.80	1160.50	1171.98	1175.79	1176.01	1178.30	1175.56	1173.12
55.0	1169.73	1164.64	1168.06	1170.45	1177.50	1171.30	1172.84	1170.81	1164.54	1163.27
57.5	1165.67	1173.20	1173.19	1172.52	1174.50	1163.93	1167.48	1156.95	1157.35	1160.22
60.0	1167.14	1172.78	1165.09	1166.30	1163.41	1158.46	1152.39	1152.23	1142.98	1142.81
62.5	1158.97	1160.45	1158.43	1158.03	1156.11	1156.83	1145.91	1135.97	1130.69	1123.06
65.0	1147.91	1147.23	1145.60	1147.46	1145.43	1129.81	1130.00	1116.44	1106.87	1108.83
67.5	1126.33	1130.17	1125.24	1127.36	1123.43	1112.54	1098.18	1096.22	1089.98	1083.20
70.0	1089.07	1093.89	1088.95	1092.83	1089.89	1081.28	1069.59	1061.41	1056.82	1052.02
72.5	1049.70	1043.62	1042.96	1043.10	1040.41	1041.37	1030.01	1027.49	1016.81	1017.09
75.0	989.34	984.67	992.62	986.23	989.20	987.02	976.80	975.58	969.07	966.33
77.5	912.97	922.66	924.18	926.31	927.63	923.14	921.93	919.02	915.24	907.66
80.0	843.86	840.09	847.66	849.76	851.27	855.09	854.28	854.05	852.02	853.47
82.5	763.58	762.79	771.41	772.69	775.54	774.63	779.52	778.16	774.99	774.46
85.0	680.59	681.59	688.74	689.69	694.47	702.11	697.91	701.72	702.51	704.11
87.5	602.47	601.85	605.23	608.75	620.96	618.98	617.19	619.90	630.22	618.21
90.0	526.70	529.68	530.08	533.69	534.68	540.13	541.97	546.53	549.76	545.08
92.5	454.80	459.67	456.44	458.88	462.91	466.78	469.10	474.83	474.21	479.60
95.0	395.98	395.35	391.30	393.93	397.17	401.83	398.87	404.51	407.11	405.49
97.5	340.06	337.15	336.75	333.07	333.38	337.08	340.37	338.17	343.66	339.89
100.0	291.26	286.36	285.60	280.94	280.46	280.07	282.69	282.40	285.52	284.57
102.5	244.49	245.29	238.40	236.03	231.35	231.69	232.01	231.37	233.18	229.35
105.0	201.25	203.92	199.77	195.96	189.58	188.88	186.99	185.83	188.04	184.71
107.5	171.76	166.78	166.36	161.66	155.02	152.78	148.42	147.92	146.02	146.55
110.0	138.67	137.61	137.00	130.22	126.22	118.54	115.03	114.11	114.25	110.70
112.5	111.53	113.77	107.78	102.28	98.98	94.36	88.42	88.94	84.35	84.27
115.0	89.78	90.08	86.00	83.03	76.97	72.04	67.44	63.32	61.10	60.21
117.5	71.37	69.76	69.17	65.81	61.26	53.82	49.53	44.80	42.53	43.22
120.0	55.09	53.71	52.20	49.67	45.42	38.99	34.93	29.83	28.38	26.92
122.5	41.59	39.82	37.66	35.47	33.42	28.87	25.30	20.47	17.21	16.54
125.0	30.53	29.11	27.42	25.50	23.16	20.76	16.61	13.46	9.96	8.30
127.5	20.54	20.34	19.52	17.45	15.89	13.47	10.61	8.01	5.03	3.56
130.0	13.72	13.08	12.78	11.68	9.77	7.95	6.02	4.00	2.85	2.47
132.5	8.43	8.27	7.50	6.72	5.72	4.12	2.88	2.15	2.26	2.28

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CANDELA TABULATION - (Cont.)

135.0	4.22	3.74	3.48	2.94	2.53	2.20	2.04	2.13	2.50	2.28
137.5	1.95	2.23	2.09	2.26	1.99	2.17	2.06	2.24	2.20	1.80
140.0	1.61	1.77	1.92	2.02	1.77	1.96	1.63	1.90	1.89	1.70
142.5	1.89	1.64	1.76	1.74	1.74	1.69	1.58	1.64	1.63	1.48
145.0	1.21	1.51	1.20	1.39	1.50	1.42	1.30	1.41	1.33	1.58
147.5	1.35	1.15	1.14	1.27	1.15	1.37	1.58	1.26	1.37	1.52
150.0	1.18	1.01	1.16	0.91	1.09	0.92	1.14	1.17	1.26	1.36
152.5	0.83	0.92	0.84	0.95	1.07	0.87	0.98	1.11	1.18	0.79
155.0	0.45	0.71	1.01	0.73	0.85	0.77	0.92	0.79	0.97	0.91
157.5	0.71	0.75	0.69	0.58	0.77	0.64	0.62	0.74	0.73	0.65
160.0	0.83	0.52	0.50	0.52	0.50	0.56	0.50	0.52	0.60	0.59
162.5	0.42	0.40	0.47	0.50	0.57	0.51	0.54	0.47	0.69	0.30
165.0	0.29	0.38	0.25	0.33	0.30	0.24	0.32	0.38	0.29	0.28
167.5	0.12	0.13	0.16	0.16	0.16	0.18	0.16	0.05	0.14	0.23
170.0	0.17	0.04	0.18	0.20	0.20	0.14	0.25	0.04	0.10	0.17
172.5	0.10	0.12	0.08	0.08	0.09	0.10	0.15	0.10	0.05	0.00
175.0	0.02	0.14	0.00	0.00	0.00	0.00	0.00	0.09	0.13	0.00
177.5	0.28	0.16	0.28	0.15	0.00	0.31	0.00	0.11	0.00	0.00
180.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13

**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	929.51	929.51	929.51	929.51	929.51	929.51	929.51	929.51	929.51
2.5	910.12	931.87	917.19	911.07	951.39	928.27	935.48	926.80	905.04
5.0	948.58	928.02	935.34	945.81	928.68	943.78	946.95	943.38	922.96
7.5	952.35	962.57	947.37	952.99	954.64	963.86	954.13	950.13	979.75
10.0	979.15	978.31	989.02	984.01	970.43	964.45	969.62	978.48	963.53
12.5	1003.60	993.24	1001.12	1002.00	1005.25	996.60	987.05	995.85	1012.12
15.0	1029.69	1033.49	1027.00	1023.86	1017.04	1028.33	1022.57	1019.90	1028.72
17.5	1057.83	1058.83	1054.97	1042.38	1045.94	1039.92	1043.00	1047.61	1041.20
20.0	1090.91	1088.48	1076.49	1075.00	1070.64	1070.30	1059.14	1058.40	1061.60
22.5	1114.20	1120.89	1106.63	1104.31	1094.98	1085.08	1077.30	1077.08	1078.10
25.0	1141.00	1133.11	1125.24	1112.42	1113.84	1094.93	1099.20	1090.69	1091.73
27.5	1160.11	1160.22	1144.21	1132.24	1123.29	1116.45	1109.08	1101.74	1104.17
30.0	1175.62	1169.66	1163.00	1152.89	1134.93	1125.76	1114.34	1116.95	1103.27
32.5	1179.50	1179.99	1171.17	1166.21	1153.15	1130.72	1124.00	1113.30	1114.11
35.0	1194.11	1191.79	1181.40	1170.41	1157.39	1146.91	1135.95	1126.10	1127.10
37.5	1200.42	1185.07	1181.42	1175.45	1156.68	1146.66	1139.98	1126.54	1131.88
40.0	1199.64	1200.92	1187.40	1177.44	1167.86	1151.14	1139.54	1131.00	1140.98
42.5	1198.16	1196.30	1184.44	1177.67	1164.68	1161.58	1144.86	1140.35	1136.05
45.0	1194.30	1195.40	1187.46	1180.07	1170.77	1161.28	1151.85	1147.39	1151.72
47.5	1181.44	1185.48	1184.78	1186.03	1171.99	1166.71	1157.22	1155.95	1152.29
50.0	1186.58	1176.11	1178.05	1178.27	1169.86	1166.81	1162.45	1161.61	1154.55
52.5	1181.06	1178.35	1165.14	1171.81	1178.67	1170.25	1168.59	1163.51	1164.40
55.0	1168.18	1165.65	1171.95	1171.54	1167.16	1176.74	1168.94	1160.46	1177.38
57.5	1155.17	1158.85	1172.51	1173.70	1169.33	1166.90	1163.85	1169.42	1173.95
60.0	1141.39	1148.33	1159.37	1166.15	1165.02	1165.58	1168.43	1161.92	1166.88
62.5	1128.33	1135.90	1136.76	1150.81	1157.00	1156.99	1157.58	1159.50	1156.88
65.0	1115.47	1115.86	1122.57	1134.37	1140.73	1145.06	1140.35	1139.54	1138.63
67.5	1087.47	1094.88	1100.04	1107.50	1112.49	1111.22	1119.23	1115.64	1118.48
70.0	1054.49	1064.08	1068.36	1069.28	1077.21	1080.61	1079.76	1077.12	1077.33
72.5	1014.84	1023.32	1026.68	1033.66	1032.13	1036.19	1035.04	1034.70	1033.16
75.0	967.96	969.66	979.60	973.81	980.26	977.40	981.39	976.85	976.67
77.5	912.86	911.76	918.24	919.10	916.10	915.90	910.49	914.20	904.34
80.0	846.15	848.17	848.79	852.09	848.34	844.14	844.65	830.15	829.54

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CANDELA TABULATION - (Cont.)

82.5	774.34	773.41	774.49	774.84	773.67	761.78	764.35	760.76	756.37
85.0	698.63	697.83	696.58	694.99	692.24	688.74	679.60	672.26	681.87
87.5	620.49	620.43	621.13	613.31	610.49	607.48	601.76	594.93	596.04
90.0	546.91	543.48	539.93	540.19	534.50	528.89	520.45	523.68	517.70
92.5	473.42	475.71	469.95	465.34	463.57	458.17	456.28	460.07	452.44
95.0	405.34	404.43	401.20	397.69	396.07	395.16	390.96	387.09	397.08
97.5	343.42	340.50	335.19	334.17	333.21	334.81	334.77	337.47	339.79
100.0	285.01	282.45	280.98	280.93	277.26	279.95	286.44	285.91	288.29
102.5	229.54	233.31	231.09	232.47	232.73	236.22	241.31	246.67	242.90
105.0	185.11	187.71	186.18	188.09	187.59	193.27	199.99	201.88	203.55
107.5	146.22	145.51	148.08	149.59	154.47	159.35	165.02	170.28	170.76
110.0	112.99	112.57	114.31	120.71	123.69	131.70	133.92	138.56	137.94
112.5	84.03	85.61	89.06	93.41	98.04	105.56	111.42	111.03	111.22
115.0	62.11	63.24	65.48	72.09	78.57	83.40	87.49	89.74	89.07
117.5	43.59	43.66	48.06	55.49	61.00	63.76	68.40	70.64	70.64
120.0	28.83	30.65	34.87	40.55	45.16	49.64	52.35	54.20	53.47
122.5	17.13	20.66	25.08	30.30	32.19	36.03	39.27	40.71	40.37
125.0	10.03	13.38	16.20	19.65	23.52	25.43	28.91	29.17	29.81
127.5	4.89	7.77	10.84	13.69	15.78	18.23	19.99	20.47	20.86
130.0	2.81	3.90	5.78	8.25	10.13	11.01	13.05	13.85	13.92
132.5	2.34	2.21	2.74	4.04	5.35	6.44	7.48	8.82	7.79
135.0	1.90	2.11	2.39	2.32	2.71	3.39	3.85	4.35	4.44
137.5	2.09	1.83	2.17	2.21	2.27	2.13	2.02	2.37	2.06
140.0	2.18	1.73	1.88	1.78	1.81	1.86	1.75	1.58	1.76
142.5	1.70	1.64	1.77	1.56	1.61	1.83	1.53	1.71	1.67
145.0	1.56	1.51	1.47	1.45	1.58	1.60	1.36	1.59	1.49
147.5	1.26	1.48	1.21	1.37	1.13	1.42	1.31	1.42	1.36
150.0	1.19	1.09	1.33	1.00	0.87	1.03	1.08	1.06	1.01
152.5	1.01	0.93	1.07	1.04	0.85	0.84	1.19	0.95	0.97
155.0	0.84	0.90	0.71	0.80	0.65	0.75	0.63	0.93	0.81
157.5	0.63	0.56	0.83	0.63	0.71	0.70	0.61	0.75	0.48
160.0	0.59	0.36	0.34	0.70	0.57	0.49	0.75	0.64	0.55
162.5	0.27	0.39	0.35	0.36	0.52	0.31	0.49	0.53	0.25
165.0	0.28	0.43	0.35	0.30	0.24	0.26	0.42	0.43	0.21
167.5	0.12	0.15	0.12	0.20	0.13	0.23	0.24	0.07	0.06
170.0	0.08	0.14	0.04	0.07	0.16	0.08	0.17	0.14	0.10
172.5	0.09	0.11	0.16	0.18	0.04	0.02	0.14	0.07	0.11
175.0	0.12	0.15	0.12	0.00	0.06	0.00	0.00	0.00	0.00
177.5	0.14	0.13	0.00	0.15	0.18	0.00	0.00	0.00	0.08
180.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	382.89	4.00	5.30
0-30	899.39	9.30	12.40
0-40	1627.29	16.80	22.50
0-60	3582.3	37.00	49.50
0-80	5727.66	59.20	79.20
0-90	6482.39	67.00	89.60
10-90	6391.58	66.10	88.40
20-40	1244.4	12.90	17.20
20-50	2151.64	22.20	29.70
40-70	3072.55	31.80	42.50
60-80	2145.37	22.20	29.70
70-80	1027.83	10.60	14.20
80-90	754.72	7.80	10.40
90-110	648.35	6.70	9.00
90-120	726.35	7.50	10.00
90-130	746.64	7.70	10.30
90-150	750.56	7.80	10.40
90-180	751.05	7.80	10.40
110-180	102.71	1.10	1.40
0-180	7233.44	74.80	100.00

Total Luminaire Efficiency = 74.80%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	90.81
10-20	292.08
20-30	516.50
30-40	727.90
40-50	907.24
50-60	1047.77
60-70	1117.54
70-80	1027.83
80-90	754.72
90-100	439.73
100-110	208.62
110-120	78.00
120-130	20.29
130-140	2.99
140-150	0.94
150-160	0.39
160-170	0.10
170-180	0.01

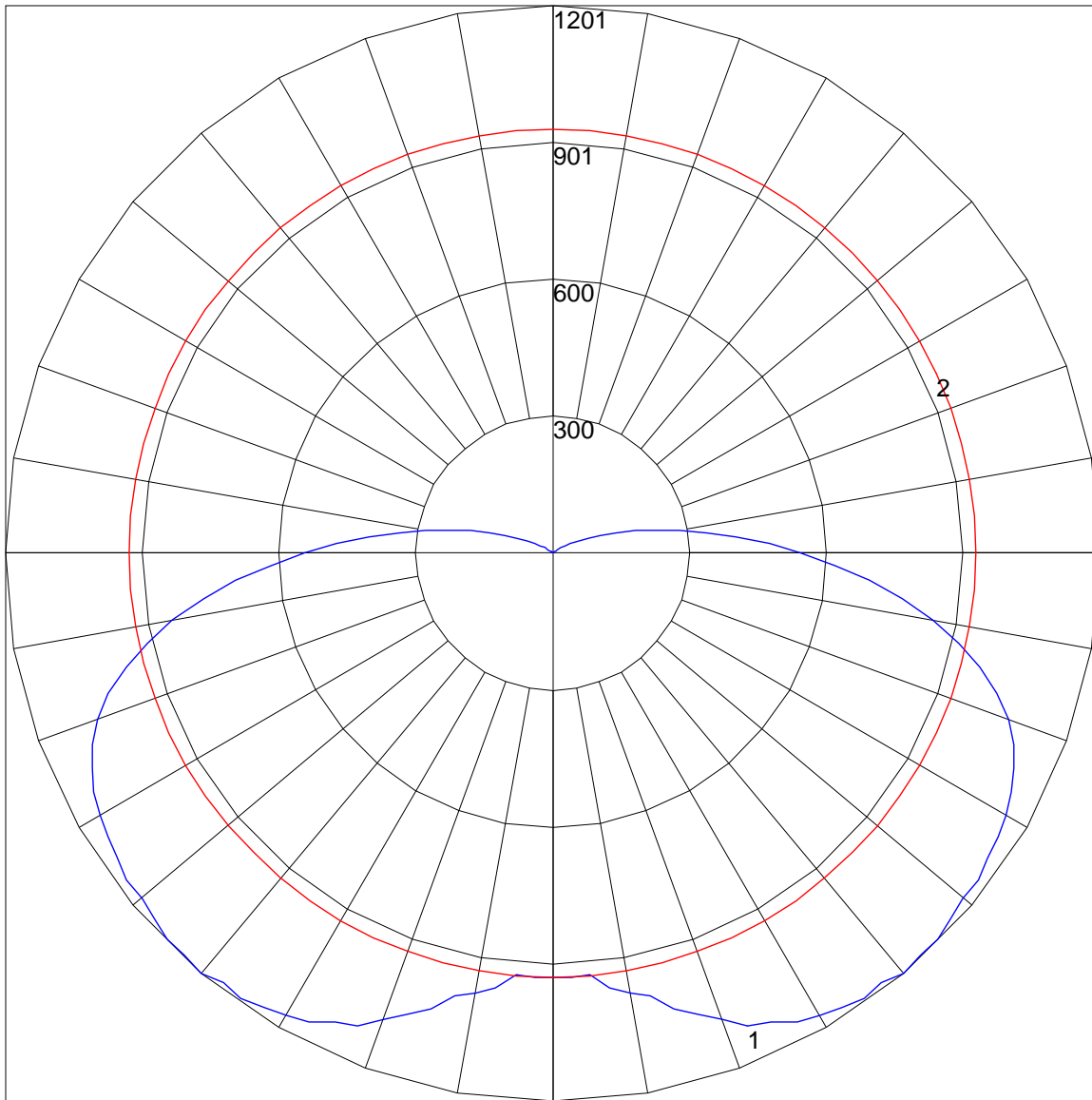
IES INDOOR REPORT
 PHOTOMETRIC FILENAME : BS400LEDHTHOWT40120-277V_S.IES

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	76	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 = 1200.92 Located At Horizontal Angle = 55, Vertical Angle = 40
1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0)