

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P937021

Luminaire Tested: SQ4-FB-075U-050D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937021  
REPORT IS A COMBINATION OF REPORTS P933493 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-050D-927-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

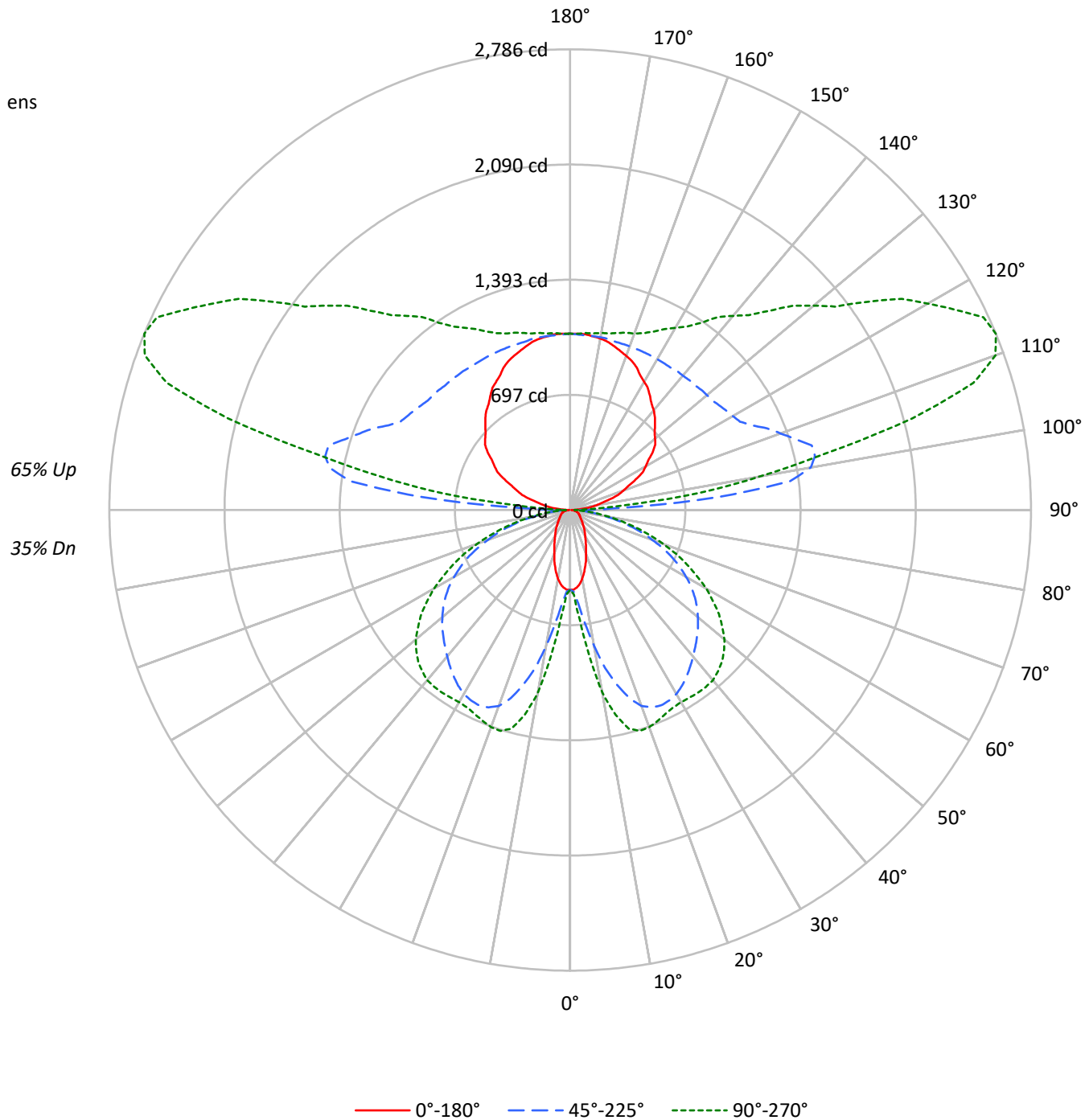
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10648.3 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 103.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35				35
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29				29
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	30	29	23				23
3	77	68	61	55	70	62	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	44	39	35	34	30	27	25	22	20	16				16
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12				12
7	55	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	14	12	9				9
9	47	35	27	22	42	32	25	20	26	21	17	20	16	14	15	12	10	8				8
10	44	32	24	20	39	29	22	18	23	18	15	18	15	12	14	11	9	7				7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1491	1491	1491
5°	1457	1723	2003
10°	1322	2512	3321
15°	1124	3283	4010
20°	915	3805	4087
25°	764	3983	4004
30°	644	4009	3996
35°	570	3944	4100
40°	497	3858	4207
45°	450	3796	4223
50°	414	3740	4153
55°	396	3658	3969
60°	406	3499	3678
65°	424	3257	3279
70°	452	2842	2770
75°	503	2319	2161
80°	554	1610	1457
85°	502	855	745

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4223 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.3	0.6
10°-20°	276.2	2.6
20°-30°	483.2	4.5
30°-40°	622.0	5.8
40°-50°	694.8	6.5
50°-60°	665.4	6.2
60°-70°	527.4	5.0
70°-80°	310.1	2.9
80°-90°	90.2	0.8
90°-100°	520.1	4.9
100°-110°	1367.3	12.8
110°-120°	1417.8	13.3
120°-130°	1137.2	10.7
130°-140°	892.3	8.4
140°-150°	684.9	6.4
150°-160°	493.2	4.6
160°-170°	301.8	2.8
170°-180°	102.0	1.0
0°-30°	821.8	7.7
0°-40°	1443.8	13.6
0°-60°	2804.0	26.3
0°-90°	3731.7	35.0
90°-120°	3305.2	31.0
90°-150°	6019.7	56.5
90°-180°	6917.0	65.0
0°-180°	10648.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	470	504	567	641	665	43
15°	352	649	1094	1326	1368	98
25°	225	736	1303	1360	1362	103
35°	152	703	1227	1297	1348	95
45°	104	561	1084	1242	1298	80
55°	74	356	920	1069	1098	68
65°	59	189	683	768	779	58
75°	43	116	375	412	414	45
85°	16	36	93	102	104	16
90°	7	20	54	27	27	7
95°	69	269	896	462	314	76
105°	246	373	1512	2295	2141	261
115°	438	531	1211	2415	2757	432
125°	609	682	1101	1861	2196	540
135°	725	798	1067	1502	1704	561
145°	841	895	1053	1282	1382	527
155°	951	977	1053	1156	1190	437
165°	1026	1040	1053	1095	1108	290
175°	1067	1067	1060	1074	1074	101
180°	1067	1067	1067	1067	1067	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	481.9	481.9	484.9	486.5	489.6	491.1	494.3	497.3	506.7	508.2	511.3
5°	469.5	475.6	495.8	503.5	525.2	554.6	567.0	587.2	629.0	641.4	649.2
7.5°	450.8	464.8	514.4	526.8	581.0	658.5	691.0	734.4	801.0	833.5	859.9
10°	421.4	450.8	539.2	568.6	656.9	774.7	835.1	895.5	996.2	1041.2	1058.2
12.5°	388.8	436.9	565.5	605.8	732.8	904.8	977.7	1044.3	1158.9	1219.4	1228.6
15°	351.7	416.8	590.3	649.2	813.4	1013.2	1093.9	1175.9	1282.9	1326.2	1337.1
17.5°	319.2	401.2	613.5	675.5	875.4	1110.9	1193.0	1261.2	1348.0	1377.4	1385.2
20°	278.9	376.5	629.0	709.6	940.5	1182.2	1261.2	1313.9	1372.8	1391.3	1394.4
22.5°	249.5	350.1	638.3	722.0	983.8	1225.5	1292.1	1334.0	1374.3	1380.5	1382.0
25°	224.7	320.7	636.8	736.0	1021.0	1251.9	1303.0	1334.0	1357.2	1360.4	1360.4
27.5°	201.4	288.2	630.6	739.0	1048.9	1258.1	1298.4	1320.0	1330.9	1337.1	1337.1
30°	181.3	257.2	615.1	732.8	1061.3	1251.9	1284.4	1295.3	1306.1	1315.4	1320.0
32.5°	165.8	227.8	591.8	720.4	1062.8	1236.4	1259.6	1265.8	1281.3	1303.0	1310.8
35°	151.8	198.4	565.5	703.4	1053.6	1211.6	1227.1	1233.3	1264.3	1296.8	1307.6
37.5°	137.9	176.6	531.5	674.0	1039.6	1182.2	1193.0	1203.8	1251.9	1290.6	1303.0
40°	124.0	158.0	491.1	641.4	1017.9	1146.5	1155.8	1172.9	1236.4	1281.3	1293.7
42.5°	113.1	142.5	447.8	607.4	990.1	1106.3	1120.2	1145.0	1217.8	1265.8	1279.7
45°	103.8	127.0	401.2	560.9	954.4	1064.4	1084.5	1118.7	1196.1	1242.5	1254.9
47.5°	94.5	116.2	353.3	512.8	915.7	1022.6	1048.9	1087.6	1166.6	1211.6	1222.5
50°	86.8	105.3	305.2	461.7	873.8	977.7	1008.6	1048.9	1129.5	1171.3	1185.3
52.5°	80.5	96.1	260.3	410.6	825.8	931.2	966.8	1008.6	1084.5	1124.8	1134.1
55°	74.4	88.3	221.5	356.4	776.2	881.6	920.3	960.6	1035.0	1069.1	1075.2
57.5°	71.3	82.1	189.0	305.2	723.6	825.8	869.2	906.4	976.1	1002.5	1008.6
60°	66.6	77.5	164.2	261.9	666.2	773.2	810.3	847.5	906.4	928.1	932.7
62.5°	62.0	74.4	145.6	220.0	607.4	711.2	748.4	782.4	832.0	847.5	853.7
65°	58.9	71.3	131.7	189.0	546.9	646.1	683.3	712.7	753.0	768.5	771.5
67.5°	55.7	68.1	120.8	162.7	486.5	581.0	608.9	636.8	667.7	683.3	684.8
70°	51.1	65.1	111.6	144.1	424.5	506.7	529.9	559.3	584.1	591.8	596.5
72.5°	48.0	60.4	105.3	130.1	361.0	435.4	457.1	474.1	495.8	503.5	503.5
75°	43.4	54.2	99.2	116.2	295.9	356.4	374.9	392.0	409.0	412.1	407.5
77.5°	38.7	48.0	85.2	97.6	230.8	282.0	297.5	306.8	320.7	323.8	325.3
80°	32.6	41.8	66.6	75.9	167.3	207.6	218.4	226.2	238.6	238.6	241.7
82.5°	24.8	32.6	48.0	54.2	113.1	142.5	151.8	156.5	164.2	164.2	164.2
85°	15.5	20.2	31.0	35.7	68.1	86.8	92.9	94.5	100.7	102.3	102.3
87.5°	7.8	10.9	20.2	21.7	35.7	45.0	45.0	48.0	48.0	46.5	45.0
90°	7.2	12.9	18.6	20.0	31.5	46.8	54.4	48.4	36.3	27.2	27.2
92.5°	28.6	77.3	126.0	138.2	194.3	269.0	306.5	268.6	192.9	136.1	130.7
95°	68.8	157.8	247.0	269.3	478.1	756.6	895.8	799.4	606.5	461.8	445.4
97.5°	118.9	197.5	276.1	295.8	644.0	1108.3	1340.5	1279.5	1157.6	1066.2	1035.0
100°	157.5	228.8	300.1	317.9	704.4	1219.6	1477.2	1481.7	1490.6	1497.3	1460.2
102.5°	190.5	257.0	323.5	340.1	732.0	1254.6	1516.0	1593.6	1748.9	1865.4	1833.6
105°	246.3	302.7	359.0	373.1	752.6	1258.6	1511.7	1685.8	2034.0	2295.1	2278.0
107.5°	303.6	356.1	408.6	421.8	756.4	1202.7	1425.7	1668.6	2154.2	2518.4	2522.6
110°	342.3	389.7	437.1	449.0	750.7	1153.0	1354.1	1625.6	2168.6	2575.7	2593.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	380.2	425.4	470.6	481.9	751.0	1109.6	1289.0	1566.8	2122.5	2539.2	2566.6
115°	437.5	479.2	520.9	531.3	757.8	1059.9	1210.9	1478.6	2013.9	2415.3	2453.3
117.5°	494.1	532.0	569.8	579.3	771.9	1028.7	1157.2	1398.7	1881.8	2244.2	2286.3
120°	527.1	562.7	598.3	607.2	783.4	1018.2	1135.7	1356.4	1797.8	2128.9	2169.8
122.5°	559.3	595.2	631.2	640.2	799.9	1012.8	1119.2	1317.9	1715.5	2013.6	2054.0
125°	608.7	641.5	674.3	682.5	822.1	1008.2	1101.3	1270.2	1607.8	1861.1	1898.3
127.5°	648.8	681.9	715.0	723.3	844.3	1005.6	1086.3	1231.3	1521.2	1738.7	1770.0
130°	670.3	705.9	741.5	750.4	860.5	1007.2	1080.5	1209.6	1467.7	1661.3	1690.2
132.5°	692.5	728.1	763.7	772.6	873.6	1008.2	1075.5	1191.0	1422.1	1595.4	1621.4
135°	725.4	757.8	790.3	798.4	888.0	1007.3	1067.0	1163.7	1357.2	1502.3	1524.7
137.5°	759.1	791.2	823.4	831.4	909.4	1013.5	1065.5	1147.3	1310.9	1433.6	1451.9
140°	786.9	816.5	846.2	853.5	922.5	1014.6	1060.5	1131.2	1272.5	1378.5	1395.5
142.5°	808.4	835.8	863.2	870.0	933.5	1018.2	1060.5	1122.6	1246.7	1339.8	1354.5
145°	841.4	865.2	889.1	895.1	947.9	1018.2	1053.4	1104.1	1205.7	1281.8	1293.0
147.5°	874.3	897.6	920.8	926.6	968.9	1025.2	1053.4	1093.3	1173.2	1233.1	1242.3
150°	895.8	916.8	937.9	943.1	979.8	1028.9	1053.4	1087.1	1154.5	1205.1	1212.6
152.5°	918.0	933.9	949.8	953.8	987.0	1031.3	1053.4	1082.2	1139.8	1183.0	1188.6
155°	951.0	962.7	974.5	977.4	1002.8	1036.5	1053.4	1076.3	1122.1	1156.5	1160.2
157.5°	975.3	986.8	998.2	1001.1	1018.5	1041.7	1053.4	1071.1	1106.8	1133.5	1136.1
160°	991.8	1000.7	1009.6	1011.9	1025.7	1044.1	1053.4	1068.6	1099.2	1122.1	1123.7
162.5°	1008.2	1014.9	1021.6	1023.3	1033.3	1046.7	1053.4	1066.2	1092.0	1111.3	1112.8
165°	1026.2	1032.2	1038.2	1039.7	1044.3	1050.4	1053.4	1062.6	1081.0	1094.9	1096.4
167.5°	1042.6	1045.4	1048.4	1049.0	1052.9	1058.0	1060.5	1066.5	1078.6	1087.7	1088.3
170°	1053.4	1056.2	1059.1	1059.8	1060.1	1060.4	1060.5	1066.5	1078.6	1087.7	1087.7
172.5°	1059.1	1059.7	1060.4	1060.5	1060.5	1060.5	1060.5	1065.3	1074.8	1082.0	1081.5
175°	1067.0	1067.0	1067.0	1067.0	1064.8	1062.0	1060.5	1063.5	1069.6	1074.2	1074.2
177.5°	1067.0	1067.0	1067.0	1067.0	1065.3	1063.1	1062.0	1064.4	1069.1	1072.7	1072.1
180°	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	481.9	481.9
2.5°	514.4	511.3
5°	661.6	664.7
7.5°	890.9	889.4
10°	1107.8	1121.7
12.5°	1265.8	1268.9
15°	1361.9	1368.1
17.5°	1399.1	1400.6
20°	1400.6	1397.6
22.5°	1383.5	1380.5
25°	1363.4	1361.9
27.5°	1344.8	1346.4
30°	1337.1	1341.7
32.5°	1337.1	1344.8
35°	1340.2	1348.0
37.5°	1338.6	1348.0
40°	1332.4	1343.3
42.5°	1315.4	1323.2
45°	1289.1	1298.4
47.5°	1254.9	1261.2
50°	1211.6	1217.8
52.5°	1157.4	1158.9
55°	1092.3	1098.5
57.5°	1022.6	1024.1
60°	945.1	949.7
62.5°	863.0	863.0
65°	776.2	779.3
67.5°	686.4	694.1
70°	595.0	596.5
72.5°	505.1	505.1
75°	412.1	413.6
77.5°	323.8	323.8
80°	240.2	241.7
82.5°	165.8	168.9
85°	103.8	103.8
87.5°	48.0	43.4
90°	27.2	27.2
92.5°	109.0	87.4
95°	379.9	314.4
97.5°	910.3	785.6
100°	1311.5	1162.9
102.5°	1706.2	1579.0
105°	2209.5	2141.1
107.5°	2539.2	2555.7
110°	2664.8	2736.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2676.1	2785.6
115°	2605.1	2756.9
117.5°	2454.6	2623.0
120°	2333.4	2497.0
122.5°	2215.3	2376.7
125°	2046.9	2195.5
127.5°	1895.4	2020.8
130°	1806.1	1922.0
132.5°	1725.1	1828.9
135°	1614.2	1703.5
137.5°	1525.1	1598.3
140°	1464.0	1532.4
142.5°	1413.4	1472.2
145°	1337.5	1382.0
147.5°	1279.2	1316.2
150°	1242.5	1272.5
152.5°	1211.2	1233.8
155°	1175.2	1190.1
157.5°	1146.7	1157.2
160°	1129.7	1135.7
162.5°	1118.5	1124.3
165°	1102.4	1108.5
167.5°	1090.9	1093.5
170°	1087.7	1087.7
172.5°	1079.2	1077.0
175°	1074.2	1074.2
177.5°	1069.5	1067.0
180°	1067.0	1067.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.85	1.61	1.91	2.69	4.15	14.04	14.80	15.11	15.88	17.35
	3H	1.54	2.23	2.62	3.31	4.80	15.88	16.56	16.95	17.65	19.13
	4H	1.84	2.49	2.93	3.57	5.07	16.52	17.17	17.61	18.26	19.75
	6H	2.08	2.68	3.18	3.77	5.27	16.95	17.55	18.05	18.64	20.14
	8H	2.15	2.72	3.25	3.82	5.32	17.07	17.64	18.17	18.75	20.24
	12H	2.16	2.70	3.27	3.80	5.33	17.14	17.68	18.25	18.78	20.30
4H	2H	8.06	8.71	9.15	9.80	11.29	14.30	14.95	15.40	16.04	17.53
	3H	9.62	10.16	10.72	11.27	12.78	16.34	16.89	17.45	18.00	19.50
	4H	9.71	10.21	10.81	11.31	12.83	17.11	17.61	18.22	18.71	20.24
	6H	9.71	10.14	10.83	11.27	12.78	17.65	18.08	18.76	19.20	20.72
	8H	9.69	10.09	10.80	11.20	12.74	17.81	18.21	18.92	19.33	20.86
	12H	9.64	10.00	10.77	11.13	12.67	17.90	18.26	19.03	19.39	20.93
8H	4H	11.15	11.55	12.26	12.67	14.20	17.16	17.56	18.28	18.68	20.21
	6H	11.38	11.72	12.52	12.88	14.41	17.79	18.12	18.93	19.28	20.81
	8H	11.40	11.69	12.54	12.83	14.38	18.01	18.30	19.15	19.44	20.99
	12H	11.36	11.62	12.51	12.76	14.34	18.15	18.41	19.30	19.55	21.13
12H	4H	11.29	11.65	12.42	12.78	14.32	17.11	17.47	18.24	18.60	20.14
	6H	11.64	11.93	12.79	13.07	14.62	17.77	18.06	18.91	19.20	20.75
	8H	11.71	11.96	12.86	13.10	14.69	18.00	18.26	19.15	19.39	20.98