

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: P938363

Luminaire Tested: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938363  
REPORT IS A COMBINATION OF REPORTS P933638 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-6-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

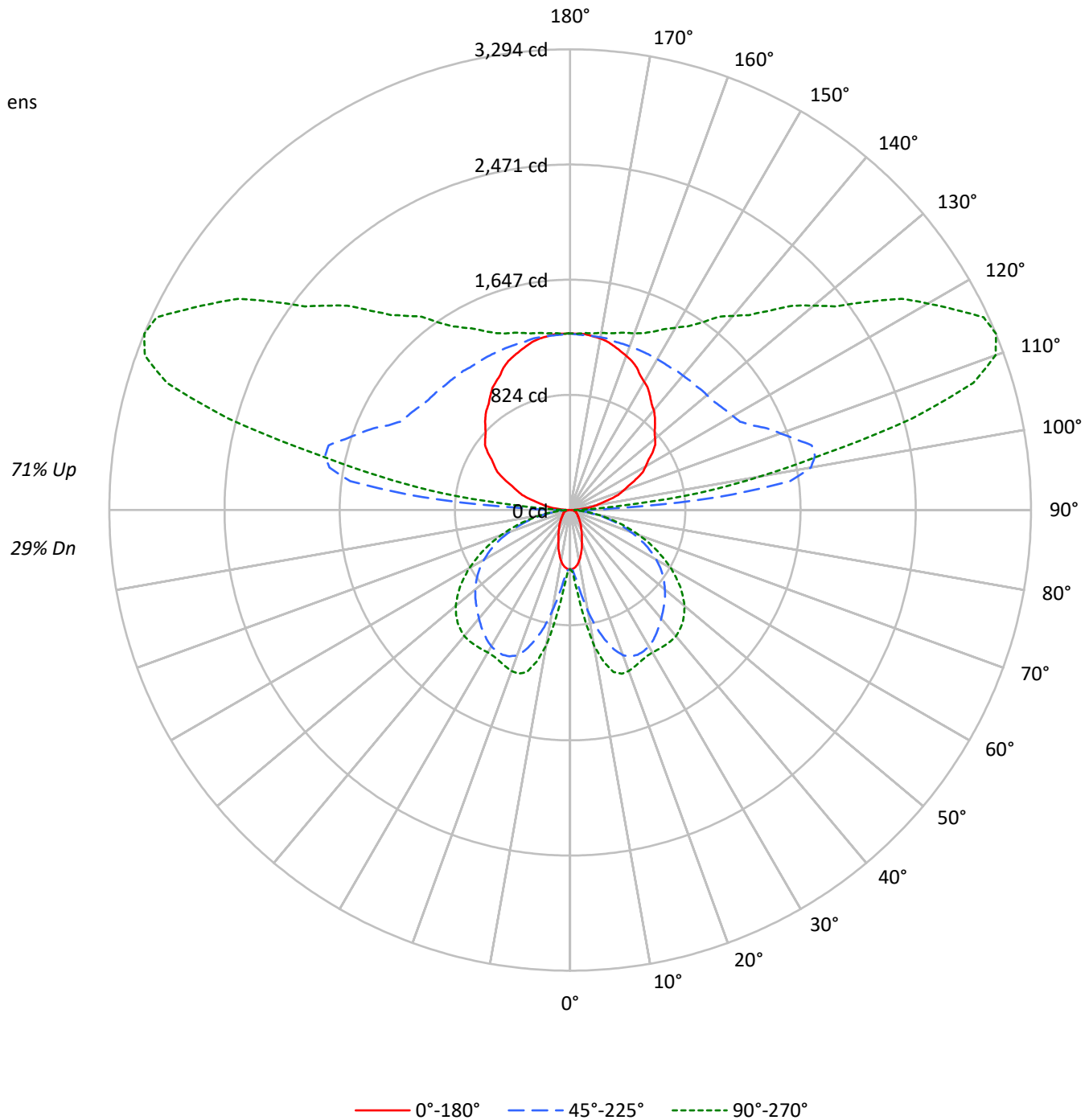
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11451.2 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 95.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	
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
RCR																		
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6

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

	0°	45°	90°
0°	2612	2612	2612
5°	2551	3018	3511
10°	2313	4399	5821
15°	1965	5746	7029
20°	1599	6657	7164
25°	1334	6965	7018
30°	1124	7007	7005
35°	994	6888	7186
40°	865	6735	7374
45°	783	6622	7402
50°	717	6520	7280
55°	687	6372	6956
60°	702	6090	6447
65°	729	5662	5747
70°	775	4933	4855
75°	855	4020	3789
80°	928	2783	2553
85°	811	1475	1307

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7402 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.6	0.5
10°-20°	242.1	2.1
20°-30°	423.5	3.7
30°-40°	545.1	4.8
40°-50°	608.9	5.3
50°-60°	583.1	5.1
60°-70°	462.1	4.0
70°-80°	271.7	2.4
80°-90°	80.3	0.7
90°-100°	615.1	5.4
100°-110°	1617.0	14.1
110°-120°	1676.7	14.6
120°-130°	1344.9	11.7
130°-140°	1055.3	9.2
140°-150°	810.0	7.1
150°-160°	583.3	5.1
160°-170°	356.9	3.1
170°-180°	120.6	1.1
0°-30°	720.2	6.3
0°-40°	1265.3	11.0
0°-60°	2457.3	21.5
0°-90°	3271.5	28.6
90°-120°	3908.8	34.1
90°-150°	7118.9	62.2
90°-180°	8180.0	71.4
0°-180°	11451.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	422	422	422	422	422	
5°	411	441	497	562	582	38
15°	308	569	959	1162	1199	86
25°	197	645	1142	1192	1194	91
35°	133	616	1075	1136	1181	83
45°	91	492	950	1089	1138	70
55°	65	312	806	937	963	59
65°	52	166	599	673	683	51
75°	38	102	329	361	362	40
85°	14	31	82	90	91	14
90°	8	24	64	32	32	8
95°	81	318	1059	546	372	90
105°	291	441	1788	2714	2532	309
115°	517	628	1432	2856	3260	511
125°	720	807	1302	2201	2596	639
135°	858	944	1262	1777	2015	664
145°	995	1059	1246	1516	1634	623
155°	1125	1156	1246	1368	1407	517
165°	1214	1230	1246	1295	1311	342
175°	1262	1262	1254	1270	1270	120
180°	1262	1262	1262	1262	1262	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3
2.5°	422.3	422.3	425.0	426.3	429.0	430.4	433.1	435.8	444.0	445.3	448.1
5°	411.4	416.8	434.5	441.3	460.3	486.1	496.9	514.6	551.2	562.1	568.9
7.5°	395.1	407.3	450.8	461.6	509.2	577.0	605.6	643.6	702.0	730.5	753.5
10°	369.3	395.1	472.5	498.3	575.7	678.9	731.8	784.8	873.0	912.4	927.3
12.5°	340.8	382.9	495.6	530.9	642.2	792.9	856.7	915.1	1015.6	1068.6	1076.8
15°	308.2	365.2	517.3	568.9	712.8	888.0	958.6	1030.6	1124.3	1162.3	1171.8
17.5°	279.7	351.7	537.7	592.0	767.1	973.5	1045.6	1105.3	1181.3	1207.1	1213.9
20°	244.4	329.9	551.2	621.8	824.1	1036.0	1105.3	1151.5	1203.0	1219.3	1222.1
22.5°	218.6	306.8	559.4	632.7	862.2	1074.1	1132.4	1169.1	1204.4	1209.8	1211.2
25°	196.9	281.1	558.0	644.9	894.8	1097.1	1142.0	1169.1	1189.5	1192.2	1192.2
27.5°	176.5	252.5	552.6	647.6	919.2	1102.6	1137.9	1156.9	1166.4	1171.8	1171.8
30°	158.9	225.4	539.0	642.2	930.1	1097.1	1125.7	1135.2	1144.7	1152.8	1156.9
32.5°	145.3	199.6	518.7	631.3	931.4	1083.6	1103.9	1109.4	1122.9	1142.0	1148.7
35°	133.1	173.8	495.6	616.4	923.3	1061.8	1075.4	1080.9	1108.0	1136.5	1146.0
37.5°	120.8	154.8	465.7	590.6	911.0	1036.0	1045.6	1055.1	1097.1	1131.1	1142.0
40°	108.6	138.5	430.4	562.1	892.0	1004.7	1012.9	1027.8	1083.6	1122.9	1133.8
42.5°	99.1	124.9	392.4	532.2	867.6	969.4	981.6	1003.4	1067.3	1109.4	1121.6
45°	91.0	111.3	351.7	491.5	836.4	932.8	950.4	980.3	1048.3	1089.0	1099.9
47.5°	82.8	101.8	309.6	449.4	802.4	896.1	919.2	953.1	1022.4	1061.8	1071.3
50°	76.0	92.3	267.5	404.6	765.8	856.7	883.9	919.2	989.8	1026.5	1038.8
52.5°	70.6	84.2	228.1	359.8	723.7	816.0	847.2	883.9	950.4	985.7	993.9
55°	65.2	77.4	194.2	312.3	680.2	772.6	806.5	841.8	907.0	936.8	942.3
57.5°	62.5	72.0	165.6	267.5	634.1	723.7	761.7	794.3	855.4	878.5	883.9
60°	58.4	67.9	143.9	229.5	583.8	677.5	710.1	742.7	794.3	813.3	817.4
62.5°	54.3	65.2	127.6	192.8	532.2	623.2	655.8	685.7	729.1	742.7	748.1
65°	51.6	62.5	115.4	165.6	479.3	566.2	598.8	624.6	659.9	673.4	676.2
67.5°	48.9	59.7	105.9	142.6	426.3	509.2	533.6	558.0	585.2	598.8	600.1
70°	44.8	57.0	97.8	126.3	372.0	444.0	464.3	490.1	511.9	518.7	522.7
72.5°	42.1	53.0	92.3	114.1	316.4	381.5	400.5	415.5	434.5	441.3	441.3
75°	38.0	47.5	86.9	101.8	259.3	312.3	328.6	343.5	358.4	361.2	357.1
77.5°	33.9	42.1	74.7	85.5	202.3	247.1	260.7	268.8	281.1	283.8	285.1
80°	28.5	36.7	58.4	66.5	146.6	181.9	191.4	198.2	209.1	209.1	211.8
82.5°	21.7	28.5	42.1	47.5	99.1	124.9	133.1	137.1	143.9	143.9	143.9
85°	13.6	17.7	27.2	31.2	59.7	76.0	81.5	82.8	88.3	89.6	89.6
87.5°	6.8	9.5	17.7	19.0	31.2	39.4	39.4	42.1	42.1	40.7	39.4
90°	8.5	15.3	22.0	23.7	37.3	55.3	64.4	57.2	42.9	32.2	32.2
92.5°	33.9	91.4	149.1	163.5	229.8	318.3	362.4	317.6	228.1	160.9	154.5
95°	81.3	186.6	292.1	318.4	565.5	894.8	1059.4	945.4	717.2	546.2	526.8
97.5°	140.6	233.5	326.5	349.8	761.6	1310.8	1585.3	1513.2	1369.1	1261.0	1224.0
100°	186.3	270.6	354.9	376.0	833.0	1442.4	1747.1	1752.3	1762.9	1770.8	1726.9
102.5°	225.3	304.0	382.6	402.3	865.8	1483.7	1792.8	1884.5	2068.2	2206.0	2168.3
105°	291.3	357.9	424.5	441.2	890.0	1488.4	1787.7	1993.5	2405.3	2714.1	2693.8
107.5°	359.1	421.2	483.3	498.7	894.5	1422.2	1686.0	1973.3	2547.6	2978.3	2983.2
110°	404.8	460.9	516.9	531.0	887.8	1363.4	1601.3	1922.4	2564.5	3046.0	3067.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	449.7	503.1	556.5	569.9	888.1	1312.2	1524.3	1852.9	2510.0	3002.9	3035.3
115°	517.4	566.7	616.1	628.4	896.2	1253.4	1432.0	1748.5	2381.6	2856.3	2901.2
117.5°	584.3	629.1	673.9	685.1	912.9	1216.6	1368.5	1654.2	2225.4	2653.9	2703.7
120°	623.3	665.5	707.7	718.2	926.4	1204.2	1343.1	1604.1	2126.1	2517.6	2566.0
122.5°	661.4	703.9	746.5	757.1	945.9	1197.7	1323.6	1558.7	2028.7	2381.3	2429.0
125°	719.8	758.5	797.4	807.0	972.1	1192.4	1302.4	1502.1	1901.4	2200.9	2244.8
127.5°	767.2	806.3	845.5	855.3	998.4	1189.2	1284.6	1456.0	1798.9	2056.1	2093.2
130°	792.6	834.8	877.0	887.5	1017.7	1191.2	1277.9	1430.5	1735.7	1964.7	1998.9
132.5°	818.9	861.1	903.3	913.8	1033.2	1192.4	1271.9	1408.5	1681.8	1886.7	1917.4
135°	857.8	896.2	934.7	944.3	1050.1	1191.2	1261.8	1376.2	1605.0	1776.7	1803.1
137.5°	897.6	935.7	973.7	983.2	1075.5	1198.5	1260.1	1356.8	1550.3	1695.4	1717.0
140°	930.7	965.7	1000.7	1009.4	1091.0	1199.8	1254.2	1337.7	1504.8	1630.2	1650.4
142.5°	956.0	988.4	1020.8	1028.9	1104.0	1204.1	1254.2	1327.6	1474.3	1584.4	1601.8
145°	995.0	1023.3	1051.5	1058.6	1121.0	1204.1	1245.7	1305.7	1425.8	1515.9	1529.0
147.5°	1034.0	1061.5	1088.9	1095.8	1145.8	1212.4	1245.7	1292.9	1387.3	1458.2	1469.2
150°	1059.4	1084.2	1109.0	1115.2	1158.7	1216.7	1245.7	1285.6	1365.3	1425.2	1434.0
152.5°	1085.7	1104.5	1123.3	1128.0	1167.2	1219.5	1245.7	1279.7	1347.9	1398.9	1405.6
155°	1124.6	1138.5	1152.5	1155.9	1185.9	1225.8	1245.7	1272.7	1327.0	1367.6	1372.0
157.5°	1153.4	1166.9	1180.5	1183.9	1204.5	1231.9	1245.7	1266.8	1309.0	1340.5	1343.6
160°	1172.9	1183.4	1193.9	1196.5	1212.9	1234.7	1245.7	1263.8	1299.9	1327.0	1328.8
162.5°	1192.4	1200.2	1208.1	1210.1	1222.0	1237.8	1245.7	1260.9	1291.4	1314.3	1316.0
165°	1213.5	1220.7	1227.8	1229.6	1234.9	1242.1	1245.7	1256.6	1278.4	1294.8	1296.6
167.5°	1233.0	1236.4	1239.8	1240.6	1245.1	1251.2	1254.2	1261.3	1275.6	1286.3	1287.0
170°	1245.7	1249.0	1252.5	1253.3	1253.6	1254.0	1254.2	1261.3	1275.6	1286.3	1286.3
172.5°	1252.5	1253.2	1254.0	1254.2	1254.2	1254.2	1254.2	1259.8	1271.1	1279.5	1278.9
175°	1261.8	1261.8	1261.8	1261.8	1259.3	1255.9	1254.2	1257.7	1264.9	1270.2	1270.2
177.5°	1261.8	1261.8	1261.8	1261.8	1259.8	1257.2	1255.8	1258.6	1264.3	1268.6	1267.9
180°	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	422.3	422.3
2.5°	450.8	448.1
5°	579.8	582.5
7.5°	780.7	779.3
10°	970.8	983.0
12.5°	1109.4	1112.1
15°	1193.5	1199.0
17.5°	1226.1	1227.5
20°	1227.5	1224.8
22.5°	1212.6	1209.8
25°	1194.9	1193.5
27.5°	1178.6	1180.0
30°	1171.8	1175.9
32.5°	1171.8	1178.6
35°	1174.5	1181.3
37.5°	1173.2	1181.3
40°	1167.7	1177.3
42.5°	1152.8	1159.6
45°	1129.7	1137.9
47.5°	1099.9	1105.3
50°	1061.8	1067.3
52.5°	1014.2	1015.6
55°	957.2	962.6
57.5°	896.1	897.5
60°	828.2	832.3
62.5°	756.3	756.3
65°	680.2	682.9
67.5°	601.5	608.3
70°	521.4	522.7
72.5°	442.6	442.6
75°	361.2	362.5
77.5°	283.8	283.8
80°	210.4	211.8
82.5°	145.3	148.0
85°	91.0	91.0
87.5°	42.1	38.0
90°	32.2	32.2
92.5°	128.9	103.3
95°	449.2	371.7
97.5°	1076.5	929.0
100°	1551.1	1375.3
102.5°	2017.8	1867.3
105°	2612.9	2532.0
107.5°	3002.8	3022.3
110°	3151.4	3235.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3164.7	3294.2
115°	3080.7	3260.3
117.5°	2902.9	3102.0
120°	2759.5	2952.9
122.5°	2619.8	2810.6
125°	2420.6	2596.4
127.5°	2241.5	2389.8
130°	2135.9	2272.9
132.5°	2040.1	2162.8
135°	1908.9	2014.6
137.5°	1803.6	1890.2
140°	1731.3	1812.2
142.5°	1671.5	1741.1
145°	1581.7	1634.4
147.5°	1512.8	1556.5
150°	1469.4	1504.8
152.5°	1432.3	1459.1
155°	1389.7	1407.4
157.5°	1356.1	1368.5
160°	1335.9	1343.1
162.5°	1322.7	1329.5
165°	1303.7	1310.9
167.5°	1290.1	1293.1
170°	1286.3	1286.3
172.5°	1276.3	1273.7
175°	1270.2	1270.2
177.5°	1264.8	1261.8
180°	1261.8	1261.8



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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	1.95	2.66	3.06	3.78	5.32	15.11	15.83	16.23	16.94	18.49
	3H	2.64	3.28	3.76	4.40	5.97	16.94	17.58	18.06	18.70	20.26
	4H	2.93	3.54	4.07	4.66	6.23	17.57	18.18	18.70	19.30	20.87
	6H	3.17	3.74	4.32	4.86	6.44	17.99	18.55	19.13	19.68	21.26
	8H	3.24	3.77	4.38	4.91	6.49	18.10	18.64	19.25	19.78	21.35
	12H	3.25	3.76	4.40	4.89	6.49	18.16	18.67	19.31	19.81	21.40
4H	2H	9.14	9.75	10.28	10.87	12.44	15.37	15.98	16.51	17.10	18.67
	3H	10.69	11.20	11.84	12.35	13.93	17.40	17.91	18.54	19.06	20.63
	4H	10.78	11.25	11.93	12.39	13.99	18.15	18.62	19.30	19.76	21.36
	6H	10.78	11.18	11.94	12.34	13.93	18.68	19.08	19.84	20.24	21.83
	8H	10.75	11.13	11.91	12.28	13.89	18.83	19.21	19.99	20.36	21.97
	12H	10.70	11.05	11.88	12.21	13.82	18.92	19.26	20.09	20.42	22.03
8H	4H	12.21	12.58	13.36	13.74	15.34	18.20	18.58	19.36	19.73	21.34
	6H	12.44	12.75	13.62	13.95	15.55	18.82	19.13	20.00	20.32	21.93
	8H	12.46	12.73	13.64	13.90	15.53	19.03	19.31	20.22	20.48	22.10
	12H	12.42	12.66	13.61	13.83	15.49	19.17	19.41	20.35	20.58	22.23
12H	4H	12.34	12.68	13.52	13.85	15.46	18.15	18.49	19.32	19.65	21.26
	6H	12.70	12.97	13.88	14.14	15.77	18.80	19.07	19.98	20.24	21.87
	8H	12.76	13.00	13.95	14.17	15.83	19.02	19.26	20.21	20.43	22.09