

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: P938038

Luminaire Tested: SQ4-FB-125U-100D-92765-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

**Test Information**

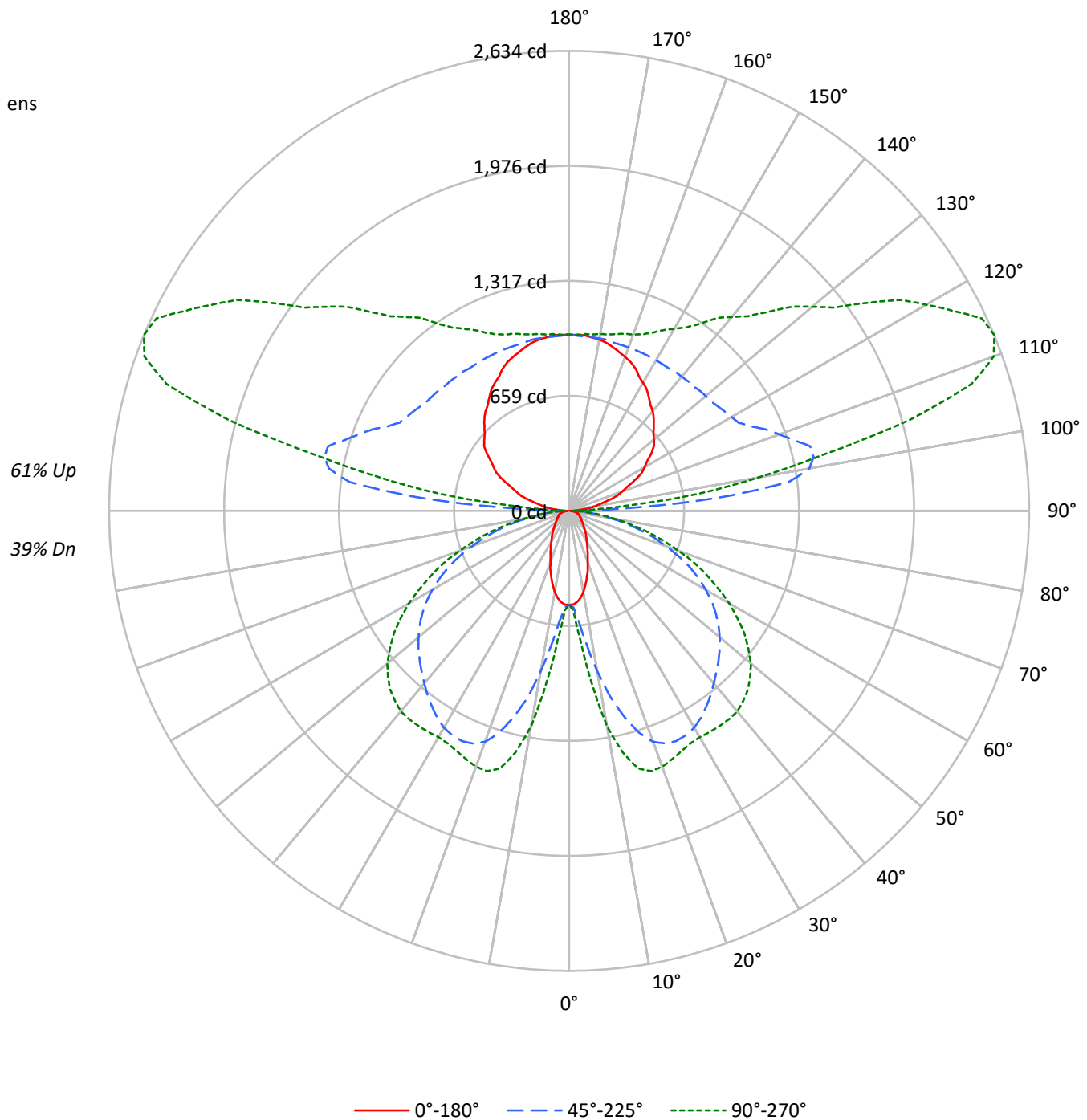
Test Method: LM-79-2019  
Report Number: P938038  
REPORT IS A COMBINATION OF REPORTS P933607 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-92765-1D-UNV-STD-W-6-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10703.3 lumens  
Efficiency: N/A  
Efficacy: 110.8 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): 96.6  
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	50	30	10	0
RCR																					
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39			
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32			
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26			
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21			
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18			
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15			
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11			
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10			
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9			
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8			

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

	0°	45°	90°
0°	3324	3324	3324
5°	3247	3842	4469
10°	2944	5599	7409
15°	2501	7313	8946
20°	2036	8473	9118
25°	1697	8864	8933
30°	1431	8918	8915
35°	1264	8767	9147
40°	1101	8572	9384
45°	996	8429	9421
50°	913	8300	9266
55°	873	8111	8855
60°	893	7751	8205
65°	929	7206	7314
70°	986	6281	6180
75°	1089	5116	4822
80°	1181	3543	3250
85°	1031	1877	1663

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9421 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.5	0.6
10°-20°	308.1	2.9
20°-30°	539.0	5.0
30°-40°	693.8	6.5
40°-50°	775.0	7.2
50°-60°	742.2	6.9
60°-70°	588.2	5.5
70°-80°	345.9	3.2
80°-90°	99.9	0.9
90°-100°	491.9	4.6
100°-110°	1293.2	12.1
110°-120°	1340.9	12.5
120°-130°	1075.6	10.0
130°-140°	843.9	7.9
140°-150°	647.8	6.1
150°-160°	466.5	4.4
160°-170°	285.4	2.7
170°-180°	96.4	0.9
0°-30°	916.6	8.6
0°-40°	1610.4	15.0
0°-60°	3127.6	29.2
0°-90°	4161.7	38.9
90°-120°	3126.0	29.2
90°-150°	5693.3	53.2
90°-180°	6542.0	61.1
0°-180°	10703.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	524	562	632	716	741	48
15°	392	724	1220	1479	1526	109
25°	251	821	1453	1517	1519	115
35°	169	785	1369	1446	1504	106
45°	116	626	1210	1386	1448	90
55°	83	398	1027	1192	1225	76
65°	66	211	762	857	869	65
75°	48	130	418	460	461	51
85°	17	40	104	114	116	18
90°	7	19	52	26	26	7
95°	65	255	847	437	297	72
105°	233	353	1430	2171	2025	247
115°	414	503	1145	2284	2607	409
125°	576	645	1042	1760	2076	511
135°	686	755	1009	1421	1611	531
145°	796	847	996	1212	1307	499
155°	899	924	996	1094	1126	413
165°	970	983	996	1036	1048	274
175°	1009	1009	1003	1016	1016	96
180°	1009	1009	1009	1009	1009	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4
2.5°	537.4	537.4	540.9	542.7	546.1	547.8	551.3	554.8	565.1	566.8	570.3
5°	523.7	530.5	553.0	561.7	585.8	618.7	632.5	655.0	701.6	715.5	724.1
7.5°	502.9	518.4	573.8	587.6	648.1	734.5	770.8	819.2	893.5	929.8	959.2
10°	470.0	502.9	601.4	634.2	732.8	864.1	931.5	998.9	1111.2	1161.4	1180.4
12.5°	433.7	487.4	630.8	675.7	817.4	1009.3	1090.5	1164.8	1292.7	1360.1	1370.5
15°	392.3	464.9	658.5	724.1	907.3	1130.2	1220.1	1311.7	1430.9	1479.3	1491.4
17.5°	356.1	447.6	684.4	753.5	976.4	1239.2	1330.7	1406.8	1503.6	1536.3	1545.0
20°	311.1	420.0	701.6	791.5	1049.1	1318.6	1406.8	1465.5	1531.2	1552.0	1555.4
22.5°	278.3	390.6	712.0	805.3	1097.4	1367.0	1441.3	1488.0	1532.9	1539.8	1541.6
25°	250.6	357.7	710.3	820.9	1138.9	1396.4	1453.4	1488.0	1513.9	1517.3	1517.3
27.5°	224.6	321.4	703.4	824.3	1170.0	1403.3	1448.2	1472.4	1484.6	1491.4	1491.4
30°	202.2	286.9	686.1	817.4	1183.8	1396.4	1432.7	1444.8	1456.9	1467.2	1472.4
32.5°	185.0	254.0	660.1	803.6	1185.5	1379.1	1405.0	1411.9	1429.2	1453.4	1462.1
35°	169.3	221.2	630.8	784.6	1175.2	1351.5	1368.7	1375.6	1410.2	1446.5	1458.6
37.5°	153.8	197.0	592.8	751.8	1159.6	1318.6	1330.7	1342.8	1396.4	1439.6	1453.4
40°	138.2	176.2	547.8	715.5	1135.4	1278.8	1289.2	1308.2	1379.1	1429.2	1443.0
42.5°	126.2	159.0	499.4	677.5	1104.3	1233.9	1249.5	1277.1	1358.4	1411.9	1427.5
45°	115.8	141.7	447.6	625.6	1064.6	1187.3	1209.8	1247.8	1334.1	1386.0	1399.9
47.5°	105.4	129.6	394.1	572.1	1021.3	1140.6	1170.0	1213.2	1301.3	1351.5	1363.5
50°	96.8	117.6	340.4	515.0	974.7	1090.5	1125.1	1170.0	1259.8	1306.5	1322.1
52.5°	89.9	107.2	290.3	458.0	921.1	1038.7	1078.4	1125.1	1209.8	1254.7	1265.1
55°	82.9	98.5	247.1	397.5	865.8	983.3	1026.6	1071.5	1154.4	1192.4	1199.4
57.5°	79.5	91.6	210.9	340.4	807.1	921.1	969.5	1011.0	1088.7	1118.1	1125.1
60°	74.3	86.4	183.2	292.0	743.1	862.4	903.9	945.3	1011.0	1035.2	1040.3
62.5°	69.2	82.9	162.5	245.4	677.5	793.2	834.7	872.7	928.0	945.3	952.3
65°	65.7	79.5	146.9	210.9	610.1	720.6	762.2	794.9	839.9	857.2	860.6
67.5°	62.2	76.0	134.8	181.5	542.7	648.1	679.1	710.3	744.9	762.2	763.9
70°	57.0	72.6	124.4	160.7	473.5	565.1	591.1	623.9	651.5	660.1	665.4
72.5°	53.5	67.4	117.6	145.2	402.7	485.6	509.8	528.8	553.0	561.7	561.7
75°	48.4	60.5	110.6	129.6	330.1	397.5	418.2	437.2	456.2	459.7	454.5
77.5°	43.2	53.5	95.1	108.9	257.5	314.5	331.8	342.2	357.7	361.2	362.9
80°	36.3	46.7	74.3	84.7	186.6	231.6	243.6	252.3	266.1	266.1	269.6
82.5°	27.6	36.3	53.5	60.5	126.2	159.0	169.3	174.6	183.2	183.2	183.2
85°	17.3	22.5	34.5	39.8	76.0	96.8	103.7	105.4	112.3	114.1	114.1
87.5°	8.6	12.1	22.5	24.2	39.8	50.1	50.1	53.5	53.5	51.9	50.1
90°	6.8	12.2	17.6	18.9	29.7	44.2	51.5	45.7	34.3	25.7	25.7
92.5°	27.1	73.2	119.2	130.7	183.7	254.5	289.9	254.0	182.4	128.7	123.6
95°	65.1	149.3	233.5	254.6	452.1	715.6	847.3	756.1	573.6	436.8	421.3
97.5°	112.4	186.7	261.1	279.7	609.0	1048.3	1267.9	1210.2	1094.9	1008.4	978.9
100°	149.0	216.4	283.8	300.7	666.1	1153.5	1397.2	1401.4	1409.8	1416.1	1381.0
102.5°	180.2	243.0	306.0	321.7	692.4	1186.6	1433.7	1507.1	1654.1	1764.2	1734.1
105°	233.0	286.3	339.5	352.8	711.8	1190.4	1429.7	1594.3	1923.6	2170.6	2154.4
107.5°	287.2	336.8	386.5	398.9	715.4	1137.4	1348.4	1578.1	2037.4	2381.9	2385.8
110°	323.7	368.5	413.3	424.6	709.9	1090.4	1280.7	1537.4	2050.9	2436.1	2452.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	359.6	402.4	445.1	455.8	710.2	1049.4	1219.0	1481.8	2007.3	2401.5	2427.4
115°	413.8	453.2	492.7	502.6	716.8	1002.4	1145.2	1398.4	1904.7	2284.4	2320.3
117.5°	467.3	503.2	538.9	547.9	730.1	972.9	1094.4	1322.9	1779.8	2122.5	2162.3
120°	498.5	532.2	565.9	574.3	740.9	963.0	1074.1	1282.8	1700.3	2013.4	2052.2
122.5°	529.0	563.0	597.0	605.5	756.5	957.8	1058.6	1246.6	1622.5	1904.4	1942.5
125°	575.6	606.7	637.6	645.4	777.5	953.6	1041.6	1201.3	1520.7	1760.2	1795.3
127.5°	613.6	644.9	676.2	684.0	798.5	951.1	1027.4	1164.5	1438.8	1644.4	1674.0
130°	633.9	667.6	701.3	709.7	813.8	952.5	1021.9	1144.0	1388.1	1571.2	1598.6
132.5°	654.9	688.6	722.3	730.8	826.3	953.6	1017.2	1126.5	1345.0	1508.9	1533.4
135°	686.0	716.7	747.4	755.1	839.8	952.7	1009.1	1100.6	1283.6	1420.9	1442.0
137.5°	717.9	748.3	778.7	786.3	860.1	958.5	1007.7	1085.1	1239.8	1355.8	1373.1
140°	744.3	772.3	800.3	807.2	872.5	959.5	1003.0	1069.8	1203.5	1303.7	1319.9
142.5°	764.6	790.5	816.4	822.9	882.9	963.0	1003.0	1061.7	1179.1	1267.2	1281.1
145°	795.7	818.3	840.9	846.6	896.5	963.0	996.2	1044.3	1140.3	1212.3	1222.9
147.5°	826.9	848.9	870.9	876.4	916.3	969.6	996.2	1034.0	1109.6	1166.3	1175.0
150°	847.3	867.2	886.9	891.9	926.7	973.0	996.2	1028.1	1092.0	1139.8	1146.9
152.5°	868.2	883.3	898.4	902.1	933.5	975.3	996.2	1023.4	1077.9	1118.8	1124.1
155°	899.4	910.6	921.7	924.4	948.3	980.3	996.2	1017.9	1061.3	1093.8	1097.4
157.5°	922.4	933.3	944.1	946.8	963.2	985.2	996.2	1013.0	1046.8	1072.1	1074.5
160°	938.0	946.4	954.9	957.0	970.1	987.5	996.2	1010.7	1039.6	1061.3	1062.7
162.5°	953.6	959.8	966.2	967.8	977.3	989.9	996.2	1008.4	1032.7	1051.1	1052.5
165°	970.5	976.2	982.0	983.4	987.7	993.3	996.2	1004.9	1022.5	1035.5	1036.9
167.5°	986.1	988.8	991.5	992.2	995.8	1000.6	1003.0	1008.8	1020.2	1028.7	1029.3
170°	996.2	998.9	1001.6	1002.3	1002.6	1002.8	1003.0	1008.8	1020.2	1028.7	1028.7
172.5°	1001.6	1002.2	1002.8	1003.0	1003.0	1003.0	1003.0	1007.5	1016.5	1023.3	1022.8
175°	1009.1	1009.1	1009.1	1009.1	1007.1	1004.4	1003.0	1005.9	1011.6	1015.9	1015.9
177.5°	1009.1	1009.1	1009.1	1009.1	1007.5	1005.4	1004.3	1006.6	1011.1	1014.5	1013.9
180°	1009.1	1009.1	1009.1	1009.1	1009.1	1009.1	1009.1	1009.1	1009.1	1009.1	1009.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	537.4	537.4
2.5°	573.8	570.3
5°	737.9	741.4
7.5°	993.7	992.0
10°	1235.7	1251.2
12.5°	1411.9	1415.4
15°	1519.1	1526.0
17.5°	1560.6	1562.2
20°	1562.2	1558.8
22.5°	1543.2	1539.8
25°	1520.8	1519.1
27.5°	1500.1	1501.8
30°	1491.4	1496.6
32.5°	1491.4	1500.1
35°	1494.9	1503.6
37.5°	1493.2	1503.6
40°	1486.2	1498.3
42.5°	1467.2	1475.9
45°	1437.9	1448.2
47.5°	1399.9	1406.8
50°	1351.5	1358.4
52.5°	1291.0	1292.7
55°	1218.4	1225.3
57.5°	1140.6	1142.4
60°	1054.2	1059.3
62.5°	962.6	962.6
65°	865.8	869.2
67.5°	765.6	774.2
70°	663.6	665.4
72.5°	563.4	563.4
75°	459.7	461.4
77.5°	361.2	361.2
80°	267.9	269.6
82.5°	185.0	188.4
85°	115.8	115.8
87.5°	53.5	48.4
90°	25.7	25.7
92.5°	103.1	82.6
95°	359.3	297.3
97.5°	861.0	743.0
100°	1240.5	1099.9
102.5°	1613.7	1493.4
105°	2089.7	2025.0
107.5°	2401.4	2417.1
110°	2520.4	2587.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2530.9	2634.5
115°	2463.8	2607.4
117.5°	2321.5	2480.8
120°	2206.9	2361.6
122.5°	2095.1	2247.8
125°	1935.9	2076.5
127.5°	1792.6	1911.2
130°	1708.2	1817.8
132.5°	1631.6	1729.7
135°	1526.6	1611.2
137.5°	1442.3	1511.6
140°	1384.6	1449.3
142.5°	1336.7	1392.5
145°	1265.0	1307.1
147.5°	1209.9	1244.8
150°	1175.2	1203.5
152.5°	1145.5	1166.9
155°	1111.5	1125.6
157.5°	1084.5	1094.4
160°	1068.4	1074.1
162.5°	1057.9	1063.3
165°	1042.7	1048.4
167.5°	1031.7	1034.1
170°	1028.7	1028.7
172.5°	1020.7	1018.6
175°	1015.9	1015.9
177.5°	1011.6	1009.1
180°	1009.1	1009.1



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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	4.07	4.86	5.11	5.91	7.33	17.23	18.03	18.27	19.08	20.50
	3H	4.77	5.48	5.82	6.54	7.98	19.06	19.77	20.11	20.83	22.27
	4H	5.06	5.74	6.12	6.80	8.25	19.70	20.38	20.76	21.44	22.88
	6H	5.31	5.93	6.38	7.00	8.46	20.12	20.75	21.19	21.81	23.27
	8H	5.37	5.97	6.45	7.05	8.50	20.24	20.83	21.31	21.91	23.37
	12H	5.39	5.96	6.47	7.03	8.51	20.30	20.87	21.38	21.94	23.42
4H	2H	11.26	11.94	12.33	13.00	14.45	17.50	18.18	18.56	19.24	20.68
	3H	12.83	13.39	13.90	14.48	15.94	19.53	20.10	20.61	21.19	22.65
	4H	12.92	13.44	14.00	14.52	16.00	20.29	20.81	21.37	21.89	23.37
	6H	12.92	13.37	14.02	14.48	15.95	20.82	21.27	21.91	22.37	23.85
	8H	12.90	13.32	13.99	14.41	15.90	20.98	21.40	22.07	22.49	23.98
	12H	12.85	13.23	13.96	14.34	15.84	21.07	21.45	22.18	22.56	24.05
8H	4H	14.35	14.77	15.44	15.87	17.36	20.35	20.77	21.44	21.86	23.35
	6H	14.59	14.94	15.71	16.08	17.56	20.97	21.32	22.08	22.45	23.94
	8H	14.61	14.91	15.73	16.03	17.54	21.18	21.49	22.31	22.61	24.11
	12H	14.57	14.84	15.70	15.96	17.50	21.32	21.59	22.45	22.71	24.25
12H	4H	14.49	14.87	15.60	15.98	17.47	20.30	20.68	21.41	21.78	23.28
	6H	14.85	15.15	15.97	16.27	17.78	20.95	21.26	22.07	22.37	23.88
	8H	14.92	15.18	16.04	16.30	17.84	21.17	21.44	22.30	22.56	24.10