

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: P937494

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937494  
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

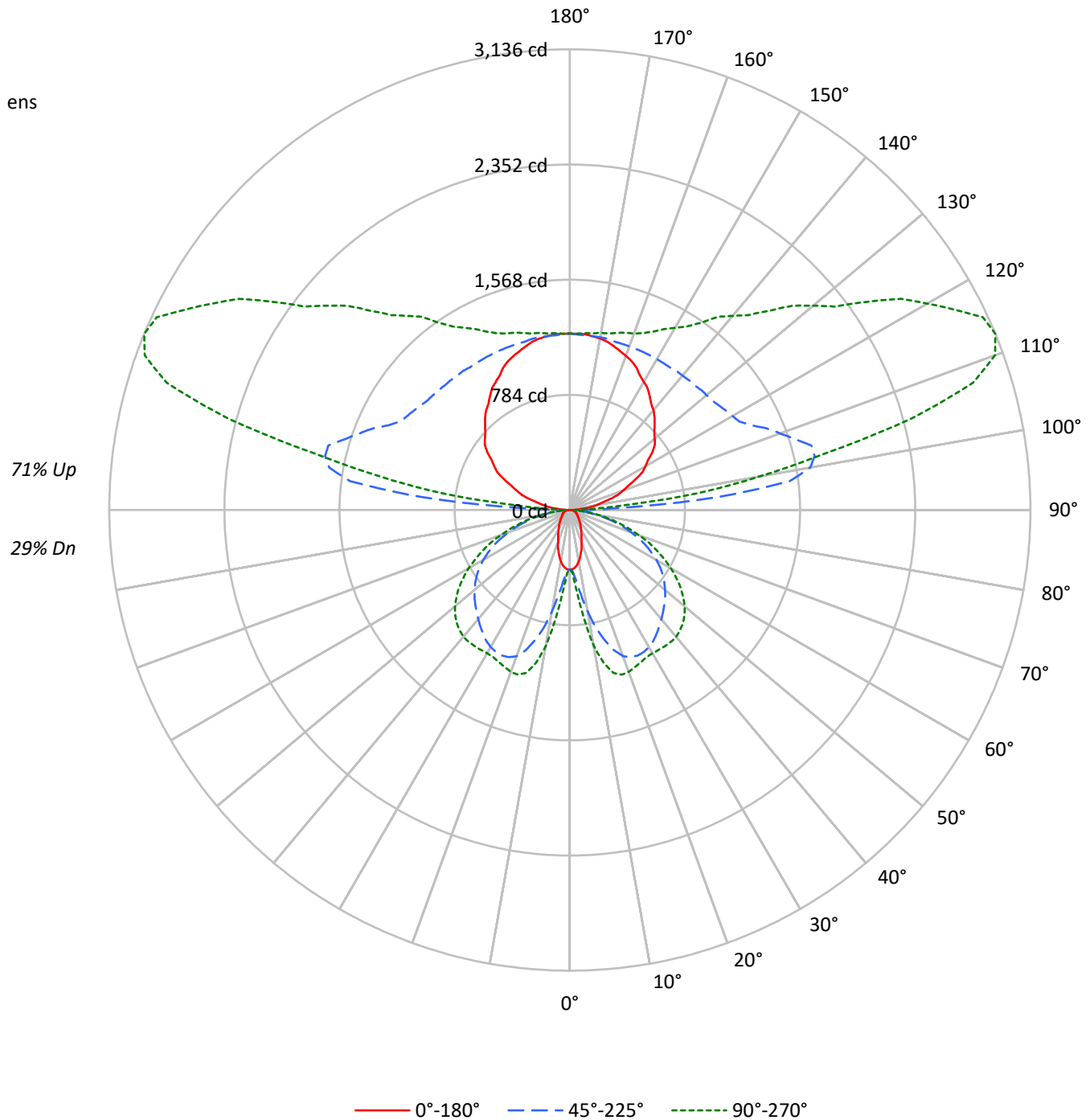
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10917.8 lumens  
Efficiency: N/A  
Efficacy: 132.5 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 82.4  
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	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	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	18	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	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

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

	0°	45°	90°
0°	1875	1875	1875
5°	1832	2168	2521
10°	1662	3160	4179
15°	1413	4128	5046
20°	1150	4784	5143
25°	959	5006	5039
30°	808	5037	5029
35°	715	4954	5159
40°	623	4845	5294
45°	564	4765	5314
50°	518	4694	5226
55°	496	4589	4994
60°	508	4388	4628
65°	528	4081	4126
70°	563	3559	3486
75°	623	2902	2720
80°	681	2012	1832
85°	606	1068	938

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5314 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.3	0.5
10°-20°	231.7	2.1
20°-30°	405.3	3.7
30°-40°	521.8	4.8
40°-50°	582.8	5.3
50°-60°	558.2	5.1
60°-70°	442.4	4.1
70°-80°	260.1	2.4
80°-90°	76.9	0.7
90°-100°	585.5	5.4
100°-110°	1539.2	14.1
110°-120°	1596.0	14.6
120°-130°	1280.2	11.7
130°-140°	1004.5	9.2
140°-150°	771.0	7.1
150°-160°	555.2	5.1
160°-170°	339.7	3.1
170°-180°	114.8	1.1
0°-30°	689.4	6.3
0°-40°	1211.2	11.1
0°-60°	2352.2	21.5
0°-90°	3131.6	28.7
90°-120°	3720.7	34.1
90°-150°	6776.4	62.1
90°-180°	7786.0	71.3
0°-180°	10917.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	394	422	476	538	558	36
15°	295	545	918	1112	1148	82
25°	188	617	1093	1141	1142	87
35°	127	590	1029	1088	1131	80
45°	87	470	910	1042	1089	67
55°	62	299	772	897	922	57
65°	49	158	573	645	654	49
75°	36	98	314	346	347	38
85°	13	30	78	86	87	14
90°	8	23	61	31	31	8
95°	77	303	1008	520	354	86
105°	277	420	1702	2584	2410	294
115°	492	598	1363	2719	3104	486
125°	685	768	1240	2095	2472	608
135°	817	899	1201	1691	1918	632
145°	947	1008	1186	1443	1556	593
155°	1070	1100	1186	1302	1340	492
165°	1155	1170	1186	1233	1248	326
175°	1201	1201	1194	1209	1209	114
180°	1201	1201	1201	1201	1201	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2
2.5°	404.2	404.2	406.8	408.1	410.7	412.0	414.6	417.3	425.0	426.3	428.9
5°	393.8	399.0	415.9	422.4	440.6	465.3	475.7	492.5	527.7	538.1	544.6
7.5°	378.2	389.9	431.5	441.9	487.4	552.3	579.7	616.1	671.9	699.2	721.3
10°	353.5	378.2	452.3	477.0	551.1	649.8	700.6	751.3	835.7	873.4	887.7
12.5°	326.3	366.5	474.4	508.1	614.7	759.0	820.2	876.0	972.2	1022.9	1030.6
15°	295.1	349.6	495.2	544.6	682.4	850.0	917.6	986.4	1076.2	1112.5	1121.6
17.5°	267.7	336.6	514.7	566.7	734.3	931.9	1000.8	1058.0	1130.7	1155.4	1161.9
20°	233.9	315.8	527.7	595.3	789.0	991.7	1058.0	1102.1	1151.6	1167.2	1169.8
22.5°	209.2	293.7	535.5	605.6	825.3	1028.1	1083.9	1119.1	1152.8	1158.1	1159.3
25°	188.5	269.0	534.2	617.3	856.5	1050.2	1093.0	1119.1	1138.6	1141.2	1141.2
27.5°	169.0	241.8	529.0	620.0	879.9	1055.3	1089.2	1107.4	1116.5	1121.6	1121.6
30°	152.0	215.8	516.0	614.7	890.3	1050.2	1077.4	1086.5	1095.6	1103.5	1107.4
32.5°	139.1	191.1	496.5	604.4	891.6	1037.1	1056.7	1061.8	1074.8	1093.0	1099.5
35°	127.3	166.4	474.4	590.0	883.8	1016.4	1029.4	1034.6	1060.6	1087.9	1096.9
37.5°	115.7	148.2	445.8	565.4	872.1	991.7	1000.8	1009.9	1050.2	1082.7	1093.0
40°	104.0	132.6	412.0	538.1	853.9	961.8	969.6	983.9	1037.1	1074.8	1085.3
42.5°	94.9	119.6	375.6	509.5	830.5	928.0	939.7	960.5	1021.6	1061.8	1073.6
45°	87.1	106.6	336.6	470.4	800.6	892.9	909.8	938.4	1003.4	1042.4	1052.7
47.5°	79.3	97.5	296.3	430.2	768.1	857.9	879.9	912.4	978.7	1016.4	1025.5
50°	72.8	88.4	256.0	387.3	733.0	820.2	846.1	879.9	947.5	982.6	994.3
52.5°	67.5	80.6	218.3	344.4	692.7	781.1	811.1	846.1	909.8	943.6	951.4
55°	62.4	74.1	185.9	298.9	651.2	739.5	772.0	805.8	868.2	896.8	902.0
57.5°	59.8	68.9	158.5	256.0	607.0	692.7	729.2	760.4	818.8	840.9	846.1
60°	55.9	65.0	137.8	219.7	558.9	648.6	679.8	711.0	760.4	778.5	782.5
62.5°	52.0	62.4	122.2	184.6	509.5	596.6	627.7	656.4	698.0	711.0	716.2
65°	49.4	59.8	110.5	158.5	458.8	542.0	573.2	597.9	631.7	644.7	647.3
67.5°	46.8	57.2	101.4	136.4	408.1	487.4	510.8	534.2	560.2	573.2	574.4
70°	42.9	54.6	93.6	120.8	356.1	425.0	444.5	469.2	490.0	496.5	500.4
72.5°	40.3	50.7	88.4	109.2	302.8	365.2	383.4	397.7	415.9	422.4	422.4
75°	36.4	45.4	83.1	97.5	248.3	298.9	314.5	328.8	343.1	345.7	341.9
77.5°	32.5	40.3	71.5	81.9	193.7	236.5	249.5	257.4	269.0	271.6	273.0
80°	27.3	35.1	55.9	63.7	140.4	174.1	183.2	189.7	200.2	200.2	202.7
82.5°	20.8	27.3	40.3	45.4	94.9	119.6	127.3	131.3	137.8	137.8	137.8
85°	13.0	16.9	26.0	29.8	57.2	72.8	78.0	79.3	84.5	85.8	85.8
87.5°	6.5	9.1	16.9	18.2	29.8	37.7	37.7	40.3	40.3	39.0	37.7
90°	8.0	14.5	20.9	22.6	35.5	52.6	61.2	54.5	40.8	30.6	30.6
92.5°	32.3	87.1	142.0	155.6	218.7	302.9	345.0	302.3	217.2	153.2	147.1
95°	77.4	177.7	278.0	303.1	538.2	851.7	1008.4	899.9	682.8	520.0	501.6
97.5°	133.8	222.3	310.9	332.9	725.0	1247.7	1509.0	1440.4	1303.2	1200.3	1165.2
100°	177.3	257.6	337.9	357.9	792.9	1373.0	1663.0	1668.0	1678.0	1685.6	1643.7
102.5°	214.4	289.2	364.2	382.9	824.0	1412.3	1706.5	1793.9	1968.8	2099.9	2064.1
105°	277.3	340.7	404.1	420.0	847.2	1416.9	1701.7	1897.6	2289.6	2583.5	2564.3
107.5°	341.8	400.9	460.0	474.8	851.6	1353.8	1605.0	1878.3	2425.0	2835.0	2839.7
110°	385.3	438.7	492.1	505.4	845.1	1297.9	1524.3	1830.0	2441.1	2899.5	2919.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	428.0	478.9	529.8	542.5	845.4	1249.1	1451.0	1763.8	2389.3	2858.5	2889.3
115°	492.5	539.4	586.4	598.2	853.1	1193.1	1363.1	1664.5	2267.1	2719.0	2761.7
117.5°	556.2	598.8	641.5	652.1	869.0	1158.1	1302.6	1574.5	2118.4	2526.3	2573.7
120°	593.3	633.4	673.6	683.5	881.9	1146.3	1278.5	1527.0	2023.9	2396.5	2442.6
122.5°	629.6	670.1	710.6	720.6	900.4	1140.0	1259.9	1483.6	1931.1	2266.8	2312.2
125°	685.2	722.1	759.0	768.2	925.4	1135.0	1239.7	1429.9	1810.0	2095.1	2136.9
127.5°	730.3	767.5	804.9	814.2	950.4	1132.1	1222.9	1386.1	1712.4	1957.2	1992.5
130°	754.5	794.6	834.7	844.8	968.6	1133.8	1216.4	1361.6	1652.2	1870.2	1902.7
132.5°	779.5	819.6	859.7	869.8	983.4	1135.0	1210.8	1340.8	1600.9	1795.9	1825.1
135°	816.6	853.1	889.7	898.8	999.6	1133.9	1201.1	1310.0	1527.8	1691.2	1716.4
137.5°	854.5	890.6	926.8	935.9	1023.7	1140.9	1199.4	1291.5	1475.7	1613.8	1634.4
140°	885.9	919.2	952.5	960.9	1038.5	1142.1	1193.8	1273.4	1432.5	1551.8	1571.0
142.5°	910.1	940.9	971.7	979.4	1050.9	1146.1	1193.8	1263.7	1403.4	1508.2	1524.8
145°	947.2	974.0	1001.0	1007.7	1067.1	1146.2	1185.8	1242.9	1357.2	1442.9	1455.4
147.5°	984.2	1010.4	1036.5	1043.1	1090.7	1154.1	1185.8	1230.7	1320.7	1388.1	1398.5
150°	1008.4	1032.1	1055.7	1061.6	1103.0	1158.1	1185.8	1223.8	1299.7	1356.7	1365.1
152.5°	1033.4	1051.4	1069.3	1073.7	1111.1	1160.9	1185.8	1218.2	1283.1	1331.7	1338.1
155°	1070.5	1083.7	1097.0	1100.3	1128.8	1166.8	1185.8	1211.5	1263.2	1301.9	1306.0
157.5°	1097.9	1110.8	1123.7	1126.9	1146.5	1172.7	1185.8	1205.8	1245.9	1276.1	1279.0
160°	1116.5	1126.6	1136.5	1139.1	1154.7	1175.4	1185.8	1203.0	1237.4	1263.2	1264.9
162.5°	1135.0	1142.5	1150.1	1151.9	1163.2	1178.2	1185.8	1200.3	1229.3	1251.1	1252.7
165°	1155.1	1161.9	1168.7	1170.5	1175.6	1182.4	1185.8	1196.1	1217.0	1232.6	1234.3
167.5°	1173.7	1176.9	1180.1	1180.9	1185.2	1190.9	1193.8	1200.6	1214.3	1224.4	1225.1
170°	1185.8	1189.0	1192.3	1193.0	1193.3	1193.6	1193.8	1200.6	1214.3	1224.4	1224.4
172.5°	1192.3	1192.9	1193.6	1193.8	1193.8	1193.8	1193.8	1199.2	1210.0	1218.0	1217.5
175°	1201.1	1201.1	1201.1	1201.1	1198.7	1195.5	1193.8	1197.2	1204.0	1209.1	1209.1
177.5°	1201.1	1201.1	1201.1	1201.1	1199.2	1196.7	1195.5	1198.2	1203.5	1207.6	1206.9
180°	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	404.2	404.2
2.5°	431.5	428.9
5°	554.9	557.6
7.5°	747.3	746.0
10°	929.3	941.0
12.5°	1061.8	1064.4
15°	1142.5	1147.7
17.5°	1173.7	1174.9
20°	1174.9	1172.3
22.5°	1160.7	1158.1
25°	1143.7	1142.5
27.5°	1128.1	1129.5
30°	1121.6	1125.6
32.5°	1121.6	1128.1
35°	1124.2	1130.7
37.5°	1123.0	1130.7
40°	1117.7	1126.9
42.5°	1103.5	1110.0
45°	1081.4	1089.2
47.5°	1052.7	1058.0
50°	1016.4	1021.6
52.5°	970.8	972.2
55°	916.3	921.5
57.5°	857.9	859.1
60°	792.8	796.7
62.5°	723.9	723.9
65°	651.2	653.8
67.5°	575.8	582.3
70°	499.1	500.4
72.5°	423.7	423.7
75°	345.7	347.0
77.5°	271.6	271.6
80°	201.5	202.7
82.5°	139.1	141.7
85°	87.1	87.1
87.5°	40.3	36.4
90°	30.6	30.6
92.5°	122.8	98.4
95°	427.7	353.9
97.5°	1024.7	884.3
100°	1476.5	1309.1
102.5°	1920.8	1777.4
105°	2487.2	2410.2
107.5°	2858.4	2877.0
110°	2999.8	3080.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3012.4	3135.7
115°	2932.6	3103.5
117.5°	2763.2	2952.7
120°	2626.8	2810.9
122.5°	2493.8	2675.4
125°	2304.2	2471.5
127.5°	2133.6	2274.8
130°	2033.2	2163.6
132.5°	1942.0	2058.7
135°	1817.1	1917.7
137.5°	1716.8	1799.2
140°	1648.0	1725.0
142.5°	1591.1	1657.4
145°	1505.6	1555.7
147.5°	1440.0	1481.6
150°	1398.8	1432.5
152.5°	1363.5	1388.9
155°	1322.9	1339.7
157.5°	1290.8	1302.6
160°	1271.7	1278.5
162.5°	1259.1	1265.6
165°	1241.1	1247.9
167.5°	1228.0	1230.9
170°	1224.4	1224.4
172.5°	1214.9	1212.4
175°	1209.1	1209.1
177.5°	1204.0	1201.1
180°	1201.1	1201.1



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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	0.81	1.53	1.93	2.64	4.19	14.00	14.71	15.11	15.83	17.37
	3H	1.51	2.15	2.63	3.27	4.83	15.82	16.47	16.95	17.59	19.15
	4H	1.80	2.41	2.93	3.53	5.10	16.46	17.07	17.60	18.20	19.76
	6H	2.04	2.61	3.19	3.73	5.31	16.88	17.45	18.03	18.57	20.15
	8H	2.11	2.64	3.25	3.78	5.35	17.00	17.54	18.15	18.68	20.25
	12H	2.12	2.63	3.27	3.76	5.36	17.06	17.57	18.21	18.71	20.30
4H	2H	8.01	8.63	9.16	9.75	11.31	14.25	14.86	15.39	15.99	17.55
	3H	9.57	10.08	10.71	11.23	12.81	16.28	16.79	17.43	17.94	19.52
	4H	9.66	10.13	10.81	11.26	12.86	17.04	17.51	18.19	18.65	20.25
	6H	9.66	10.06	10.81	11.22	12.81	17.57	17.98	18.73	19.14	20.73
	8H	9.63	10.01	10.79	11.16	12.76	17.73	18.11	18.89	19.26	20.87
	12H	9.58	9.92	10.75	11.09	12.70	17.82	18.16	18.99	19.32	20.93
8H	4H	11.09	11.46	12.24	12.62	14.22	17.09	17.47	18.25	18.62	20.23
	6H	11.32	11.63	12.50	12.83	14.43	17.71	18.03	18.89	19.22	20.82
	8H	11.34	11.61	12.52	12.78	14.41	17.93	18.20	19.11	19.38	21.00
	12H	11.30	11.54	12.49	12.71	14.36	18.07	18.31	19.26	19.48	21.13
12H	4H	11.22	11.57	12.40	12.73	14.34	17.04	17.38	18.21	18.54	20.15
	6H	11.58	11.85	12.76	13.02	14.65	17.70	17.97	18.88	19.14	20.76
	8H	11.64	11.88	12.83	13.05	14.71	17.92	18.16	19.10	19.33	20.98