

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: P936655

Luminaire Tested: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

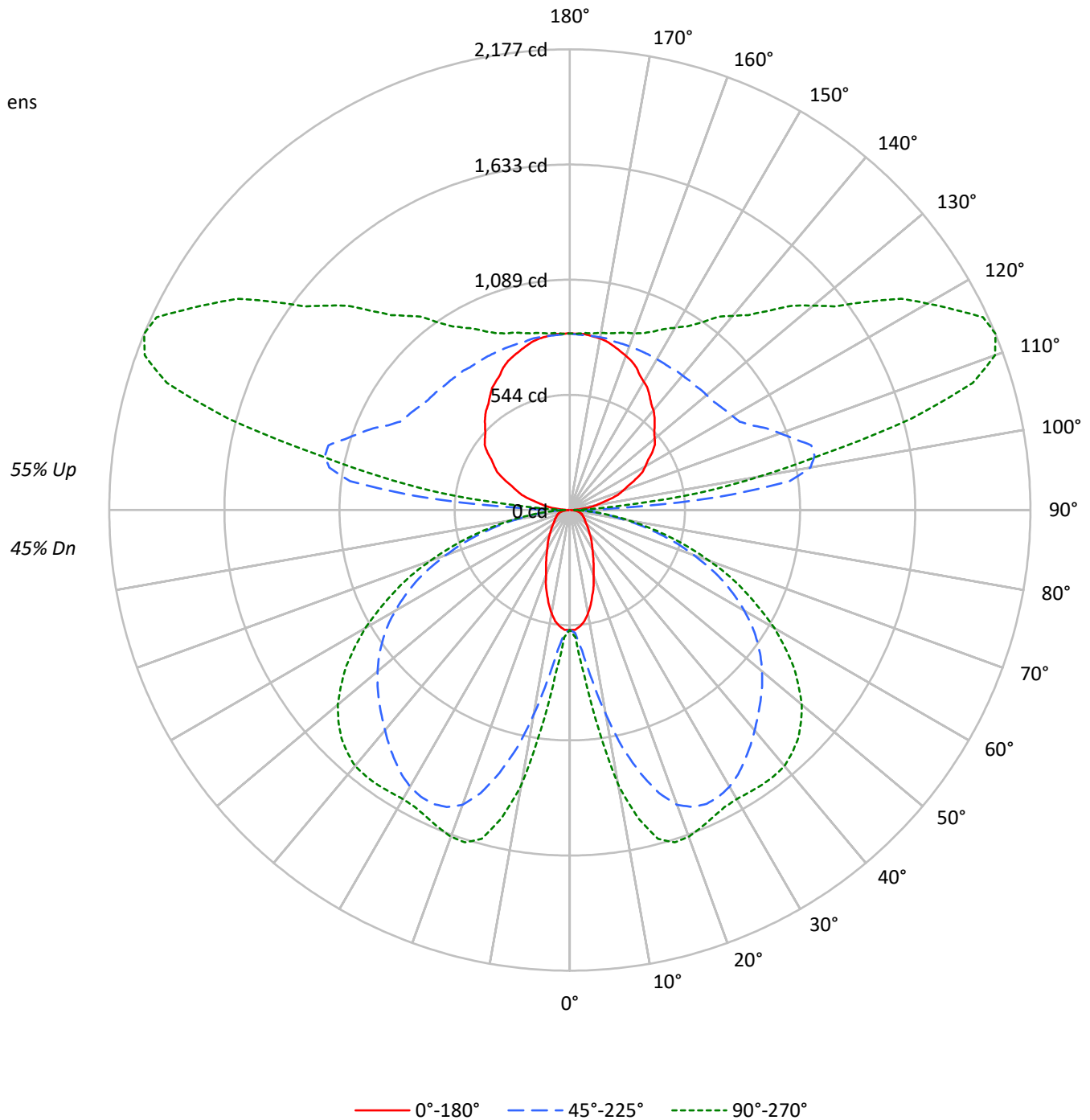
Test Method: LM-79-2019  
Report Number: P936655  
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9791.1 lumens  
Efficiency: N/A  
Efficacy: 114.9 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: General Diffuse  
  
Input Watts (W): 85.2  
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

TEST NUMBER: P936655  
CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P936655

CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

**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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	1752	1752	1752
5°	1712	2025	2355
10°	1554	2953	3904
15°	1321	3859	4714
20°	1076	4474	4805
25°	898	4682	4707
30°	757	4713	4698
35°	670	4636	4820
40°	584	4536	4945
45°	529	4462	4965
50°	486	4397	4882
55°	466	4300	4666
60°	477	4114	4324
65°	498	3828	3854
70°	531	3341	3256
75°	591	2726	2541
80°	651	1893	1712
85°	590	1006	876

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4965 cd/sqm



TEST NUMBER: P936655

CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	0.7
10°-20°	324.7	3.3
20°-30°	568.0	5.8
30°-40°	731.2	7.5
40°-50°	816.7	8.3
50°-60°	782.2	8.0
60°-70°	619.9	6.3
70°-80°	364.5	3.7
80°-90°	104.5	1.1
90°-100°	406.5	4.2
100°-110°	1068.7	10.9
110°-120°	1108.1	11.3
120°-130°	888.9	9.1
130°-140°	697.4	7.1
140°-150°	535.3	5.5
150°-160°	385.5	3.9
160°-170°	235.9	2.4
170°-180°	79.7	0.8
0°-30°	966.0	9.9
0°-40°	1697.2	17.3
0°-60°	3296.2	33.7
0°-90°	4385.1	44.8
90°-120°	2583.3	26.4
90°-150°	4704.9	48.1
90°-180°	5406.0	55.2
0°-180°	9791.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	552	592	667	754	781	51
15°	414	763	1286	1559	1608	115
25°	264	865	1532	1599	1601	122
35°	178	827	1442	1524	1585	111
45°	122	659	1275	1461	1526	94
55°	87	419	1082	1257	1291	80
65°	69	222	803	903	916	69
75°	51	137	441	484	486	53
85°	18	42	109	120	122	19
90°	6	16	42	21	21	6
95°	54	210	700	361	246	60
105°	192	292	1182	1794	1674	204
115°	342	415	946	1888	2155	338
125°	476	533	861	1455	1716	422
135°	567	624	834	1174	1332	439
145°	658	700	823	1002	1080	412
155°	743	764	823	904	930	342
165°	802	813	823	856	866	226
175°	834	834	829	840	840	79
180°	834	834	834	834	834	



TEST NUMBER: P936655

CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4
2.5°	566.4	566.4	570.1	571.9	575.5	577.3	581.0	584.6	595.6	597.4	601.0
5°	551.9	559.1	582.8	591.9	617.4	652.0	666.6	690.3	739.4	754.0	763.1
7.5°	530.0	546.4	604.6	619.2	683.0	774.1	812.3	863.3	941.6	979.8	1010.8
10°	495.4	530.0	633.8	668.5	772.2	910.7	981.6	1052.7	1171.1	1224.0	1244.0
12.5°	457.1	513.6	664.8	712.1	861.4	1063.7	1149.3	1227.6	1362.4	1433.4	1444.3
15°	413.5	490.0	693.9	763.1	956.2	1191.1	1285.9	1382.4	1508.1	1559.0	1571.8
17.5°	375.2	471.7	721.2	794.1	1029.1	1305.9	1402.4	1482.6	1584.6	1619.2	1628.3
20°	327.8	442.6	739.4	834.2	1105.6	1389.7	1482.6	1544.5	1613.7	1635.5	1639.2
22.5°	293.3	411.6	750.4	848.8	1156.5	1440.7	1519.0	1568.2	1615.5	1622.8	1624.6
25°	264.1	377.0	748.6	865.2	1200.2	1471.6	1531.7	1568.2	1595.4	1599.1	1599.1
27.5°	236.8	338.8	741.2	868.8	1233.0	1478.9	1526.3	1551.7	1564.5	1571.8	1571.8
30°	213.1	302.3	723.0	861.4	1247.6	1471.6	1509.9	1522.7	1535.3	1546.3	1551.7
32.5°	194.9	267.7	695.7	846.9	1249.4	1453.4	1480.8	1488.0	1506.2	1531.7	1540.9
35°	178.5	233.2	664.8	826.9	1238.5	1424.3	1442.5	1449.8	1486.2	1524.5	1537.1
37.5°	162.1	207.6	624.7	792.3	1222.1	1389.7	1402.4	1415.1	1471.6	1517.1	1531.7
40°	145.7	185.7	577.3	754.0	1196.6	1347.8	1358.7	1378.7	1453.4	1506.2	1520.8
42.5°	133.0	167.5	526.4	714.0	1163.9	1300.4	1316.8	1346.0	1431.5	1488.0	1504.4
45°	122.0	149.4	471.7	659.3	1121.9	1251.2	1274.9	1315.0	1406.1	1460.7	1475.2
47.5°	111.1	136.6	415.3	602.8	1076.4	1202.1	1233.0	1278.5	1371.4	1424.3	1437.0
50°	102.0	123.8	358.8	542.7	1027.2	1149.3	1185.7	1233.0	1327.8	1376.9	1393.3
52.5°	94.7	113.0	305.9	482.6	970.8	1094.6	1136.5	1185.7	1274.9	1322.3	1333.2
55°	87.4	103.8	260.4	418.9	912.5	1036.3	1081.8	1129.2	1216.6	1256.7	1264.0
57.5°	83.8	96.5	222.2	358.8	850.6	970.8	1021.7	1065.5	1147.4	1178.4	1185.7
60°	78.3	91.1	193.1	307.8	783.1	908.9	952.6	996.2	1065.5	1091.0	1096.4
62.5°	72.9	87.4	171.2	258.6	714.0	836.0	879.7	919.7	978.0	996.2	1003.6
65°	69.2	83.8	154.8	222.2	642.9	759.5	803.2	837.8	885.2	903.4	907.0
67.5°	65.5	80.1	142.0	191.3	571.9	683.0	715.8	748.6	785.0	803.2	805.1
70°	60.1	76.5	131.2	169.4	499.0	595.6	622.9	657.5	686.7	695.7	701.2
72.5°	56.5	71.1	123.8	153.0	424.3	511.8	537.3	557.3	582.8	591.9	591.9
75°	51.0	63.7	116.6	136.6	347.9	418.9	440.7	460.8	480.8	484.4	479.0
77.5°	45.5	56.5	100.2	114.8	271.4	331.5	349.7	360.6	377.0	380.6	382.4
80°	38.3	49.2	78.3	89.2	196.7	244.0	256.8	265.9	280.5	280.5	284.1
82.5°	29.1	38.3	56.5	63.7	133.0	167.5	178.5	183.9	193.1	193.1	193.1
85°	18.2	23.7	36.4	41.9	80.1	102.0	109.3	111.1	118.4	120.2	120.2
87.5°	9.1	12.8	23.7	25.5	41.9	52.9	52.9	56.5	56.5	54.7	52.9
90°	5.6	10.0	14.6	15.7	24.6	36.6	42.5	37.8	28.3	21.3	21.3
92.5°	22.4	60.4	98.5	108.0	151.8	210.3	239.5	209.9	150.7	106.4	102.1
95°	53.8	123.4	193.1	210.4	373.7	591.3	700.1	624.7	474.0	361.0	348.1
97.5°	92.9	154.3	215.8	231.2	503.4	866.2	1047.7	1000.1	904.8	833.4	809.0
100°	123.1	178.9	234.5	248.5	550.5	953.2	1154.6	1158.1	1165.0	1170.3	1141.2
102.5°	148.9	200.9	252.8	265.8	572.2	980.7	1184.9	1245.5	1366.9	1457.9	1433.1
105°	192.5	236.5	280.5	291.6	588.2	983.7	1181.5	1317.6	1589.6	1793.8	1780.4
107.5°	237.3	278.3	319.4	329.7	591.3	940.0	1114.3	1304.2	1683.8	1968.5	1971.7
110°	267.6	304.6	341.7	350.9	586.7	901.2	1058.4	1270.6	1694.9	2013.2	2027.1



TEST NUMBER: P936655

CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	297.2	332.5	367.8	376.6	586.9	867.2	1007.4	1224.6	1658.9	1984.7	2006.0
115°	342.0	374.6	407.1	415.3	592.3	828.4	946.4	1155.6	1574.0	1887.8	1917.5
117.5°	386.1	415.7	445.3	452.8	603.3	804.1	904.4	1093.3	1470.8	1754.0	1786.9
120°	411.9	439.8	467.6	474.6	612.3	795.9	887.7	1060.2	1405.2	1664.0	1695.9
122.5°	437.1	465.3	493.3	500.4	625.2	791.6	874.7	1030.1	1340.8	1573.8	1605.3
125°	475.8	501.4	527.0	533.4	642.6	788.0	860.8	992.8	1256.6	1454.6	1483.6
127.5°	507.1	533.0	558.8	565.3	659.9	786.0	849.0	962.4	1188.9	1358.9	1383.4
130°	523.9	551.8	579.6	586.5	672.5	787.2	844.6	945.4	1147.2	1298.5	1321.1
132.5°	541.2	569.1	597.0	603.9	682.9	788.0	840.6	931.0	1111.5	1246.9	1267.2
135°	567.0	592.3	617.7	624.0	694.0	787.3	833.9	909.6	1060.8	1174.3	1191.7
137.5°	593.2	618.4	643.6	649.8	710.8	792.2	832.8	896.7	1024.6	1120.5	1134.8
140°	615.1	638.2	661.3	667.1	721.1	792.9	828.9	884.1	994.6	1077.4	1090.8
142.5°	631.9	653.3	674.7	680.0	729.7	795.8	828.9	877.4	974.4	1047.2	1058.7
145°	657.6	676.2	694.9	699.6	740.9	795.8	823.3	863.0	942.4	1001.8	1010.5
147.5°	683.4	701.5	719.7	724.2	757.3	801.3	823.3	854.6	917.0	963.8	971.1
150°	700.1	716.5	733.0	737.1	765.9	804.1	823.3	849.7	902.4	941.9	947.8
152.5°	717.5	729.9	742.4	745.5	771.5	806.0	823.3	845.9	890.9	924.6	929.1
155°	743.2	752.5	761.7	764.0	783.8	810.1	823.3	841.3	877.0	903.9	906.8
157.5°	762.3	771.3	780.2	782.4	796.1	814.3	823.3	837.3	865.1	886.0	888.1
160°	775.2	782.1	789.1	790.8	801.7	816.1	823.3	835.3	859.1	877.0	878.2
162.5°	788.0	793.3	798.5	799.8	807.7	818.1	823.3	833.4	853.5	868.6	869.7
165°	802.1	806.8	811.5	812.7	816.2	821.0	823.3	830.6	845.0	855.7	856.9
167.5°	814.9	817.1	819.4	819.9	822.9	826.9	828.9	833.6	843.1	850.1	850.7
170°	823.3	825.5	827.8	828.3	828.5	828.8	828.9	833.6	843.1	850.1	850.1
172.5°	827.8	828.2	828.8	828.9	828.9	828.9	828.9	832.6	840.1	845.7	845.2
175°	833.9	833.9	833.9	833.9	832.2	829.9	828.9	831.2	836.0	839.5	839.5
177.5°	833.9	833.9	833.9	833.9	832.7	830.9	830.0	831.9	835.6	838.5	837.9
180°	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9



TEST NUMBER: P936655

CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	566.4	566.4
2.5°	604.6	601.0
5°	777.7	781.3
7.5°	1047.3	1045.5
10°	1302.3	1318.6
12.5°	1488.0	1491.6
15°	1601.0	1608.2
17.5°	1644.7	1646.5
20°	1646.5	1642.9
22.5°	1626.4	1622.8
25°	1602.8	1601.0
27.5°	1580.9	1582.8
30°	1571.8	1577.2
32.5°	1571.8	1580.9
35°	1575.4	1584.6
37.5°	1573.6	1584.6
40°	1566.3	1579.1
42.5°	1546.3	1555.4
45°	1515.3	1526.3
47.5°	1475.2	1482.6
50°	1424.3	1431.5
52.5°	1360.5	1362.4
55°	1284.1	1291.3
57.5°	1202.1	1203.9
60°	1111.0	1116.4
62.5°	1014.5	1014.5
65°	912.5	916.1
67.5°	806.9	815.9
70°	699.4	701.2
72.5°	593.8	593.8
75°	484.4	486.3
77.5°	380.6	380.6
80°	282.3	284.1
82.5°	194.9	198.5
85°	122.0	122.0
87.5°	56.5	51.0
90°	21.3	21.3
92.5°	85.2	68.2
95°	296.9	245.7
97.5°	711.5	614.0
100°	1025.1	909.0
102.5°	1333.6	1234.1
105°	1727.0	1673.5
107.5°	1984.6	1997.5
110°	2082.8	2138.5





TEST NUMBER: P936655

CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2091.6	2177.2
115°	2036.2	2154.8
117.5°	1918.5	2050.1
120°	1823.8	1951.6
122.5°	1731.5	1857.6
125°	1599.8	1716.0
127.5°	1481.4	1579.4
130°	1411.7	1502.2
132.5°	1348.3	1429.4
135°	1261.6	1331.5
137.5°	1192.0	1249.2
140°	1144.2	1197.7
142.5°	1104.7	1150.7
145°	1045.4	1080.2
147.5°	999.8	1028.7
150°	971.1	994.6
152.5°	946.7	964.4
155°	918.6	930.2
157.5°	896.2	904.4
160°	883.0	887.7
162.5°	874.2	878.7
165°	861.7	866.4
167.5°	852.7	854.7
170°	850.1	850.1
172.5°	843.5	841.8
175°	839.5	839.5
177.5°	835.9	833.9
180°	833.9	833.9



TEST NUMBER: P936655  
 CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-4000K

**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	2.46	3.31	3.46	4.32	5.66	15.66	16.50	16.65	17.51	18.86
	3H	3.17	3.93	4.17	4.95	6.31	17.50	18.26	18.50	19.28	20.64
	4H	3.46	4.19	4.48	5.21	6.58	18.15	18.87	19.16	19.89	21.26
	6H	3.71	4.38	4.74	5.41	6.79	18.58	19.25	19.61	20.27	21.66
	8H	3.78	4.42	4.81	5.46	6.84	18.70	19.34	19.74	20.38	21.76
	12H	3.80	4.40	4.84	5.44	6.84	18.77	19.38	19.81	20.42	21.82
4H	2H	9.69	10.41	10.71	11.43	12.80	15.93	16.65	16.95	17.67	19.04
	3H	11.25	11.86	12.28	12.91	14.29	17.98	18.58	19.01	19.63	21.02
	4H	11.34	11.90	12.38	12.94	14.35	18.75	19.30	19.79	20.34	21.75
	6H	11.35	11.83	12.40	12.90	14.30	19.29	19.77	20.34	20.83	22.23
	8H	11.33	11.78	12.38	12.84	14.25	19.45	19.90	20.50	20.96	22.38
	12H	11.29	11.69	12.36	12.76	14.19	19.55	19.96	20.62	21.03	22.45
8H	4H	12.79	13.24	13.84	14.30	15.71	18.81	19.25	19.86	20.31	21.73
	6H	13.03	13.40	14.11	14.50	15.92	19.44	19.81	20.51	20.91	22.32
	8H	13.05	13.38	14.13	14.46	15.89	19.66	19.99	20.74	21.07	22.50
	12H	13.02	13.31	14.11	14.38	15.86	19.81	20.10	20.89	21.17	22.65
12H	4H	12.94	13.34	14.01	14.41	15.84	18.76	19.16	19.83	20.24	21.66
	6H	13.29	13.62	14.37	14.70	16.14	19.42	19.75	20.50	20.83	22.26
	8H	13.36	13.65	14.45	14.73	16.20	19.65	19.94	20.74	21.02	22.49