

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: P938261

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938261  
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

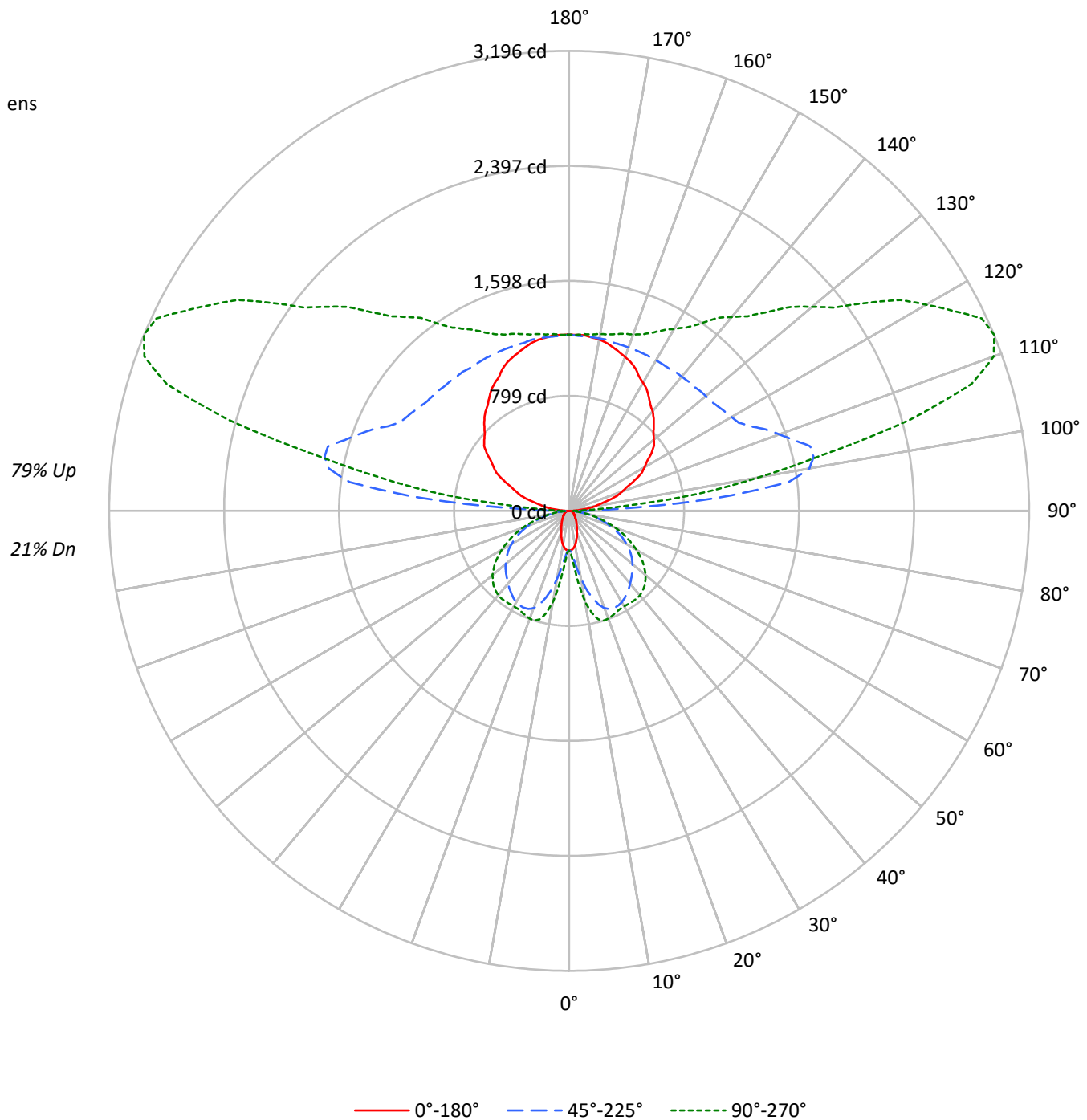
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10067.1 lumens  
Efficiency: N/A  
Efficacy: 120.7 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): 83.4  
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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

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

	0°	45°	90°
0°	1699	1699	1699
5°	1660	1964	2285
10°	1505	2862	3787
15°	1278	3738	4573
20°	1041	4332	4661
25°	868	4531	4567
30°	732	4559	4558
35°	646	4482	4675
40°	563	4383	4798
45°	509	4309	4816
50°	466	4242	4736
55°	447	4146	4527
60°	457	3963	4195
65°	475	3684	3739
70°	505	3210	3160
75°	558	2615	2465
80°	602	1811	1661
85°	531	959	850

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4816 cd/sqm



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CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.5	0.4
10°-20°	157.5	1.6
20°-30°	275.5	2.7
30°-40°	354.7	3.5
40°-50°	396.2	3.9
50°-60°	379.4	3.8
60°-70°	300.7	3.0
70°-80°	176.8	1.8
80°-90°	53.8	0.5
90°-100°	596.8	5.9
100°-110°	1569.0	15.6
110°-120°	1626.9	16.2
120°-130°	1305.0	13.0
130°-140°	1024.0	10.2
140°-150°	785.9	7.8
150°-160°	566.0	5.6
160°-170°	346.3	3.4
170°-180°	117.0	1.2
0°-30°	468.6	4.7
0°-40°	823.3	8.2
0°-60°	1598.8	15.9
0°-90°	2130.2	21.2
90°-120°	3792.8	37.7
90°-150°	6907.6	68.6
90°-180°	7937.0	78.8
0°-180°	10067.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	275	275	275	275	275	
5°	268	287	323	366	379	25
15°	200	370	624	756	780	56
25°	128	420	743	776	777	59
35°	87	401	700	739	769	54
45°	59	320	618	708	740	46
55°	42	203	525	610	626	39
65°	34	108	390	438	444	33
75°	25	66	214	235	236	26
85°	9	20	53	58	59	9
90°	8	23	62	31	31	7
95°	79	309	1028	530	361	88
105°	283	428	1735	2634	2457	300
115°	502	610	1390	2772	3164	496
125°	698	783	1264	2136	2519	620
135°	832	916	1224	1724	1955	644
145°	966	1027	1209	1471	1586	605
155°	1091	1122	1209	1327	1366	501
165°	1178	1193	1209	1256	1272	332
175°	1224	1224	1217	1232	1232	116
180°	1224	1224	1224	1224	1224	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7
2.5°	274.7	274.7	276.5	277.4	279.2	280.1	281.8	283.6	288.9	289.8	291.5
5°	267.7	271.2	282.7	287.1	299.5	316.3	323.3	334.8	358.7	365.7	370.2
7.5°	257.1	265.1	293.3	300.4	331.3	375.5	394.0	418.8	456.7	475.3	490.4
10°	240.3	257.1	307.4	324.3	374.6	441.7	476.2	510.6	568.1	593.6	603.4
12.5°	221.8	249.2	322.4	345.4	417.9	515.9	557.5	595.5	660.8	695.3	700.5
15°	200.5	237.7	336.6	370.2	463.8	577.7	623.7	670.6	731.5	756.2	762.5
17.5°	182.0	228.8	349.8	385.2	499.1	633.4	680.2	719.2	768.6	785.4	789.8
20°	159.1	214.7	358.7	404.6	536.3	674.1	719.2	749.2	782.7	793.4	795.1
22.5°	142.2	199.6	364.0	411.7	561.0	698.8	736.8	760.6	783.6	787.1	788.0
25°	128.1	182.9	363.1	419.7	582.2	713.8	743.0	760.6	773.9	775.6	775.6
27.5°	114.9	164.3	359.6	421.4	598.1	717.4	740.3	752.7	758.9	762.5	762.5
30°	103.4	146.7	350.7	417.9	605.1	713.8	732.4	738.6	744.7	750.1	752.7
32.5°	94.5	129.9	337.4	410.8	606.0	705.0	718.3	721.8	730.6	743.0	747.4
35°	86.6	113.1	322.4	401.1	600.8	690.9	699.7	703.3	720.9	739.4	745.6
37.5°	78.6	100.7	303.0	384.3	592.8	674.1	680.2	686.5	713.8	735.9	743.0
40°	70.7	90.1	280.1	365.7	580.5	653.7	659.1	668.7	705.0	730.6	737.7
42.5°	64.5	81.2	255.3	346.3	564.5	630.8	638.7	652.8	694.4	721.8	729.7
45°	59.2	72.5	228.8	319.8	544.2	606.9	618.4	637.8	682.0	708.5	715.6
47.5°	53.9	66.2	201.4	292.4	522.1	583.1	598.1	620.2	665.2	690.9	697.0
50°	49.4	60.1	174.1	263.2	498.3	557.5	575.1	598.1	644.1	667.9	675.9
52.5°	45.9	54.8	148.4	234.2	470.9	530.9	551.3	575.1	618.4	641.4	646.7
55°	42.4	50.3	126.3	203.2	442.6	502.7	524.8	547.7	590.1	609.5	613.1
57.5°	40.7	46.8	107.8	174.1	412.5	470.9	495.6	516.8	556.6	571.6	575.1
60°	38.0	44.2	93.6	149.3	379.9	440.8	462.1	483.2	516.8	529.2	531.8
62.5°	35.3	42.4	83.1	125.4	346.3	405.5	426.7	446.2	474.4	483.2	486.8
65°	33.6	40.7	75.1	107.8	311.9	368.4	389.6	406.4	429.3	438.2	439.9
67.5°	31.8	38.9	68.9	92.7	277.4	331.3	347.2	363.1	380.7	389.6	390.5
70°	29.2	37.1	63.6	82.1	242.1	288.9	302.1	318.9	333.1	337.4	340.2
72.5°	27.4	34.4	60.1	74.2	205.9	248.2	260.6	270.3	282.7	287.1	287.1
75°	24.8	30.9	56.6	66.2	168.7	203.2	213.8	223.5	233.2	235.0	232.3
77.5°	22.0	27.4	48.6	55.7	131.7	160.8	169.6	175.0	182.9	184.6	185.5
80°	18.5	23.9	38.0	43.3	95.4	118.4	124.5	129.0	136.0	136.0	137.8
82.5°	14.1	18.5	27.4	30.9	64.5	81.2	86.6	89.2	93.6	93.6	93.6
85°	8.9	11.5	17.7	20.3	38.9	49.4	53.0	53.9	57.4	58.3	58.3
87.5°	4.4	6.1	11.5	12.4	20.3	25.6	25.6	27.4	27.4	26.5	25.6
90°	8.3	14.8	21.3	23.0	36.2	53.7	62.4	55.5	41.6	31.3	31.3
92.5°	32.8	88.7	144.7	158.6	223.0	308.8	351.7	308.2	221.3	156.2	149.9
95°	78.9	181.1	283.4	309.0	548.7	868.2	1028.0	917.3	696.0	530.0	511.2
97.5°	136.4	226.6	316.8	339.4	739.0	1271.9	1538.3	1468.3	1328.4	1223.6	1187.7
100°	180.8	262.6	344.4	364.8	808.3	1399.6	1695.2	1700.3	1710.6	1718.2	1675.6
102.5°	218.6	294.9	371.3	390.3	840.1	1439.7	1739.6	1828.6	2006.8	2140.5	2104.0
105°	282.6	347.3	411.9	428.1	863.6	1444.3	1734.6	1934.4	2333.9	2633.6	2613.9
107.5°	348.4	408.7	468.9	483.9	867.9	1380.0	1636.0	1914.7	2472.0	2890.0	2894.7
110°	392.8	447.2	501.6	515.2	861.4	1323.0	1553.8	1865.3	2488.4	2955.7	2976.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	436.3	488.2	540.0	553.0	861.7	1273.3	1479.1	1797.9	2435.5	2913.8	2945.2
115°	502.0	549.9	597.8	609.7	869.6	1216.2	1389.5	1696.6	2310.9	2771.6	2815.1
117.5°	566.9	610.4	653.9	664.8	885.9	1180.5	1327.9	1605.1	2159.4	2575.2	2623.5
120°	604.8	645.7	686.7	696.8	898.9	1168.5	1303.2	1556.5	2063.0	2442.9	2489.8
122.5°	641.8	683.1	724.3	734.6	917.8	1162.2	1284.3	1512.4	1968.5	2310.6	2356.9
125°	698.4	736.0	773.7	783.1	943.3	1157.0	1263.8	1457.5	1845.0	2135.6	2178.2
127.5°	744.4	782.4	820.4	829.9	968.8	1153.9	1246.5	1412.8	1745.5	1995.1	2031.1
130°	769.1	810.1	851.0	861.2	987.5	1155.8	1240.0	1388.1	1684.2	1906.4	1939.6
132.5°	794.6	835.5	876.5	886.6	1002.5	1157.0	1234.2	1366.7	1631.9	1830.7	1860.5
135°	832.4	869.6	906.9	916.2	1018.9	1155.8	1224.4	1335.4	1557.4	1723.9	1749.6
137.5°	871.0	907.9	944.8	954.0	1043.6	1163.0	1222.7	1316.6	1504.3	1645.1	1666.0
140°	903.1	937.1	971.0	979.5	1058.6	1164.2	1217.0	1298.0	1460.2	1581.8	1601.4
142.5°	927.7	959.1	990.5	998.4	1071.3	1168.4	1217.0	1288.2	1430.6	1537.4	1554.2
145°	965.5	992.9	1020.3	1027.2	1087.7	1168.4	1208.7	1266.9	1383.5	1470.9	1483.6
147.5°	1003.3	1030.0	1056.6	1063.3	1111.8	1176.4	1208.7	1254.6	1346.2	1414.9	1425.6
150°	1028.0	1052.0	1076.1	1082.2	1124.3	1180.6	1208.7	1247.5	1324.8	1382.9	1391.5
152.5°	1053.4	1071.7	1090.0	1094.5	1132.6	1183.3	1208.7	1241.7	1307.9	1357.4	1363.9
155°	1091.2	1104.7	1118.3	1121.6	1150.7	1189.4	1208.7	1235.0	1287.6	1327.0	1331.3
157.5°	1119.1	1132.3	1145.5	1148.7	1168.8	1195.4	1208.7	1229.2	1270.1	1300.8	1303.8
160°	1138.1	1148.3	1158.5	1161.0	1176.9	1198.1	1208.7	1226.3	1261.3	1287.6	1289.3
162.5°	1157.0	1164.6	1172.3	1174.2	1185.7	1201.1	1208.7	1223.5	1253.1	1275.3	1277.0
165°	1177.5	1184.5	1191.3	1193.1	1198.3	1205.2	1208.7	1219.3	1240.5	1256.4	1258.2
167.5°	1196.4	1199.7	1203.0	1203.8	1208.2	1214.1	1217.0	1223.9	1237.8	1248.2	1248.9
170°	1208.7	1212.0	1215.3	1216.1	1216.4	1216.8	1217.0	1223.9	1237.8	1248.2	1248.2
172.5°	1215.3	1216.0	1216.8	1217.0	1217.0	1217.0	1217.0	1222.4	1233.4	1241.6	1241.0
175°	1224.4	1224.4	1224.4	1224.4	1221.9	1218.6	1217.0	1220.4	1227.3	1232.5	1232.5
177.5°	1224.4	1224.4	1224.4	1224.4	1222.4	1219.9	1218.6	1221.3	1226.8	1230.9	1230.2
180°	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	274.7	274.7
2.5°	293.3	291.5
5°	377.2	379.0
7.5°	508.0	507.1
10°	631.7	639.6
12.5°	721.8	723.5
15°	776.6	780.1
17.5°	797.8	798.6
20°	798.6	796.9
22.5°	788.9	787.1
25°	777.5	776.6
27.5°	766.8	767.7
30°	762.5	765.1
32.5°	762.5	766.8
35°	764.2	768.6
37.5°	763.3	768.6
40°	759.7	766.0
42.5°	750.1	754.5
45°	735.1	740.3
47.5°	715.6	719.2
50°	690.9	694.4
52.5°	660.0	660.8
55°	622.8	626.4
57.5°	583.1	584.0
60°	538.9	541.6
62.5°	492.1	492.1
65°	442.6	444.3
67.5°	391.4	395.8
70°	339.3	340.2
72.5°	288.0	288.0
75°	235.0	235.9
77.5°	184.6	184.6
80°	136.9	137.8
82.5°	94.5	96.3
85°	59.2	59.2
87.5°	27.4	24.8
90°	31.3	31.3
92.5°	125.1	100.2
95°	435.9	360.7
97.5°	1044.6	901.4
100°	1505.1	1334.5
102.5°	1957.9	1811.8
105°	2535.4	2456.9
107.5°	2913.7	2932.6
110°	3057.9	3139.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3070.8	3196.4
115°	2989.3	3163.6
117.5°	2816.7	3009.9
120°	2677.6	2865.3
122.5°	2542.1	2727.2
125°	2348.8	2519.3
127.5°	2174.9	2318.9
130°	2072.5	2205.4
132.5°	1979.5	2098.6
135°	1852.2	1954.8
137.5°	1750.1	1834.1
140°	1679.9	1758.4
142.5°	1621.9	1689.4
145°	1534.7	1585.9
147.5°	1467.9	1510.3
150°	1425.8	1460.2
152.5°	1389.8	1415.8
155°	1348.5	1365.7
157.5°	1315.9	1327.9
160°	1296.3	1303.2
162.5°	1283.5	1290.0
165°	1265.0	1272.0
167.5°	1251.8	1254.7
170°	1248.2	1248.2
172.5°	1238.4	1235.9
175°	1232.5	1232.5
177.5°	1227.2	1224.4
180°	1224.4	1224.4



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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	0.00	0.00	0.44	1.09	2.72	12.43	13.10	13.60	14.25	15.88
	3H	0.00	0.55	1.13	1.72	3.36	14.25	14.85	15.43	16.01	17.65
	4H	0.25	0.81	1.43	1.98	3.62	14.88	15.45	16.07	16.61	18.26
	6H	0.49	1.01	1.68	2.17	3.83	15.30	15.82	16.49	16.98	18.64
	8H	0.55	1.04	1.74	2.22	3.87	15.41	15.91	16.60	17.09	18.74
	12H	0.56	1.03	1.75	2.20	3.88	15.47	15.94	16.67	17.11	18.79
4H	2H	6.45	7.02	7.64	8.18	9.83	12.68	13.25	13.87	14.41	16.06
	3H	8.00	8.47	9.19	9.66	11.32	14.71	15.18	15.90	16.37	18.03
	4H	8.09	8.52	9.28	9.70	11.38	15.46	15.90	16.66	17.07	18.75
	6H	8.08	8.46	9.28	9.66	11.32	15.98	16.36	17.18	17.55	19.22
	8H	8.06	8.41	9.25	9.59	11.28	16.14	16.49	17.34	17.67	19.36
	12H	8.00	8.32	9.22	9.52	11.21	16.22	16.53	17.43	17.73	19.42
8H	4H	9.51	9.86	10.71	11.05	12.73	15.50	15.85	16.70	17.04	18.73
	6H	9.74	10.03	10.96	11.26	12.94	16.12	16.41	17.34	17.64	19.32
	8H	9.76	10.01	10.98	11.22	12.92	16.33	16.58	17.55	17.79	19.49
	12H	9.72	9.94	10.94	11.14	12.87	16.46	16.68	17.69	17.89	19.62
12H	4H	9.64	9.96	10.86	11.16	12.85	15.45	15.76	16.66	16.96	18.65
	6H	10.00	10.25	11.22	11.46	13.16	16.10	16.35	17.32	17.56	19.26
	8H	10.06	10.28	11.28	11.48	13.21	16.32	16.54	17.54	17.74	19.47