

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: P938307

Luminaire Tested: SQ4-FB-150U-050D-B50-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938307  
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-B50-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

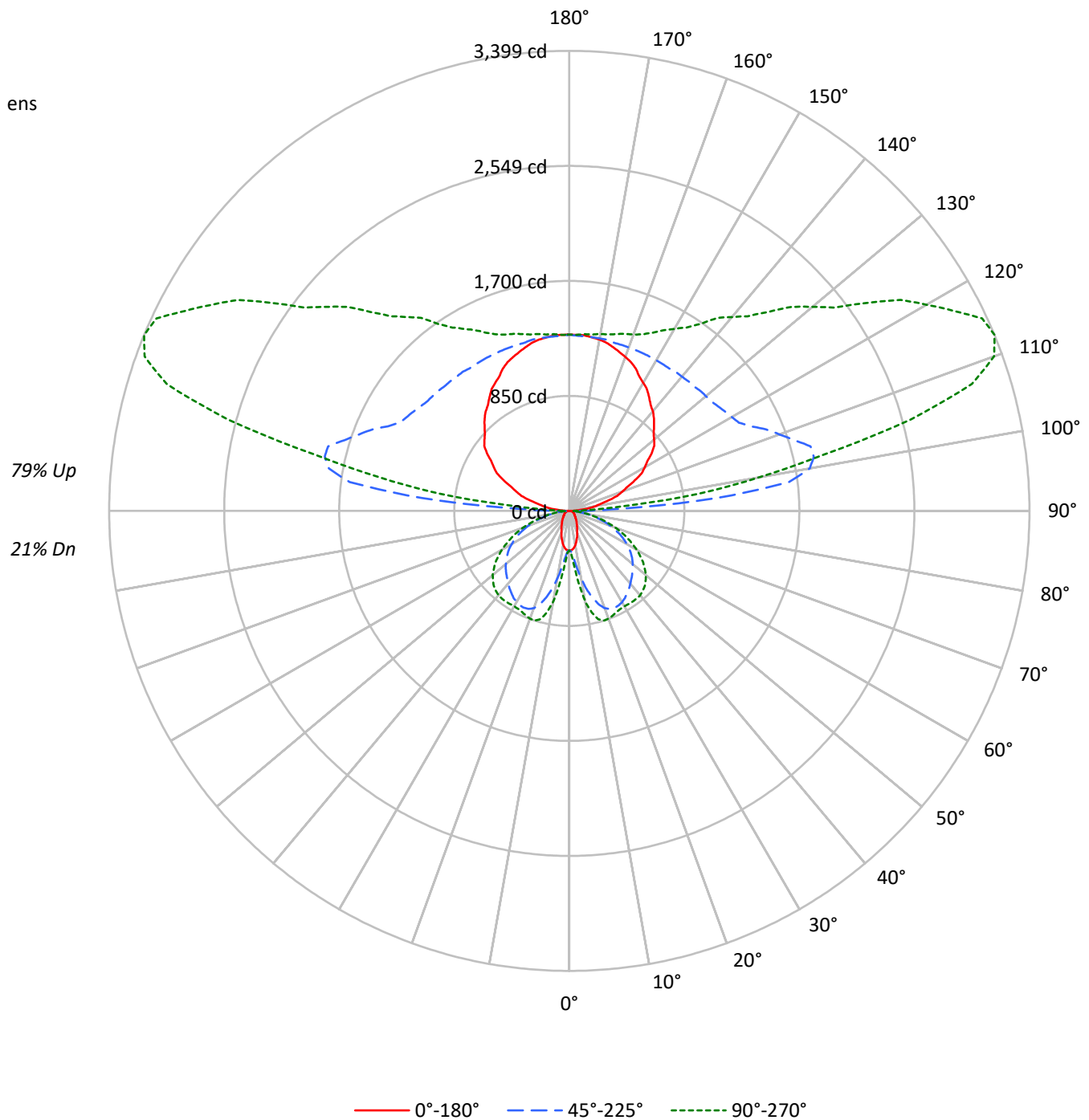
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10705.5 lumens  
Efficiency: N/A  
Efficacy: 128.4 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 (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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

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

	0°	45°	90°
0°	1808	1808	1808
5°	1765	2088	2429
10°	1600	3044	4027
15°	1359	3975	4864
20°	1107	4606	4957
25°	923	4819	4856
30°	778	4848	4847
35°	688	4766	4972
40°	599	4660	5101
45°	542	4582	5122
50°	496	4512	5037
55°	475	4410	4814
60°	486	4214	4461
65°	505	3917	3976
70°	536	3414	3359
75°	592	2780	2622
80°	641	1925	1766
85°	560	1021	905

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5122 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.8	0.4
10°-20°	167.5	1.6
20°-30°	293.0	2.7
30°-40°	377.2	3.5
40°-50°	421.3	3.9
50°-60°	403.5	3.8
60°-70°	319.8	3.0
70°-80°	188.0	1.8
80°-90°	57.2	0.5
90°-100°	634.7	5.9
100°-110°	1668.5	15.6
110°-120°	1730.1	16.2
120°-130°	1387.7	13.0
130°-140°	1088.9	10.2
140°-150°	835.8	7.8
150°-160°	601.9	5.6
160°-170°	368.3	3.4
170°-180°	124.4	1.2
0°-30°	498.3	4.7
0°-40°	875.5	8.2
0°-60°	1700.2	15.9
0°-90°	2265.2	21.2
90°-120°	4033.3	37.7
90°-150°	7345.7	68.6
90°-180°	8440.0	78.8
0°-180°	10705.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	285	305	344	389	403	26
15°	213	394	663	804	830	59
25°	136	446	790	825	826	63
35°	92	427	744	786	817	57
45°	63	340	658	754	787	49
55°	45	216	558	648	666	41
65°	36	115	414	466	472	35
75°	26	70	227	250	251	28
85°	9	22	56	62	63	10
90°	9	24	66	33	33	8
95°	84	329	1093	564	384	93
105°	301	455	1845	2801	2613	319
115°	534	648	1478	2947	3364	527
125°	743	833	1344	2271	2679	659
135°	885	974	1302	1833	2079	685
145°	1027	1092	1285	1564	1686	643
155°	1160	1193	1285	1411	1452	533
165°	1252	1269	1285	1336	1353	353
175°	1302	1302	1294	1311	1311	124
180°	1302	1302	1302	1302	1302	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2
2.5°	292.2	292.2	294.0	295.0	296.9	297.9	299.7	301.6	307.2	308.1	310.0
5°	284.7	288.4	300.7	305.3	318.5	336.3	343.8	356.0	381.4	388.9	393.7
7.5°	273.4	281.9	311.9	319.4	352.3	399.3	419.0	445.3	485.7	505.5	521.5
10°	255.5	273.4	326.9	344.8	398.4	469.7	506.4	543.0	604.1	631.3	641.7
12.5°	235.8	265.0	342.9	367.3	444.4	548.6	592.8	633.3	702.7	739.4	745.0
15°	213.2	252.7	357.9	393.7	493.2	614.4	663.2	713.1	777.9	804.2	810.8
17.5°	193.5	243.3	372.0	409.7	530.8	673.6	723.4	764.8	817.3	835.2	839.9
20°	169.1	228.3	381.4	430.3	570.3	716.8	764.8	796.7	832.4	843.7	845.6
22.5°	151.2	212.3	387.0	437.8	596.5	743.1	783.5	808.8	833.3	837.1	838.0
25°	136.3	194.5	386.1	446.3	619.1	759.1	790.1	808.8	822.9	824.8	824.8
27.5°	122.2	174.8	382.4	448.1	636.1	762.9	787.3	800.4	807.0	810.8	810.8
30°	109.9	156.0	372.9	444.4	643.5	759.1	778.9	785.4	791.9	797.6	800.4
32.5°	100.5	138.1	358.8	436.8	644.5	749.7	763.8	767.6	776.9	790.1	794.8
35°	92.1	120.3	342.9	426.6	638.9	734.7	744.0	747.9	766.6	786.3	792.9
37.5°	83.6	107.1	322.2	408.7	630.4	716.8	723.4	730.0	759.1	782.6	790.1
40°	75.2	95.8	297.9	388.9	617.3	695.2	700.9	711.1	749.7	776.9	784.5
42.5°	68.6	86.4	271.5	368.3	600.3	670.8	679.2	694.2	738.4	767.6	776.0
45°	63.0	77.1	243.3	340.1	578.7	645.4	657.6	678.3	725.3	753.5	760.9
47.5°	57.3	70.4	214.2	310.9	555.3	620.1	636.1	659.5	707.4	734.7	741.2
50°	52.6	63.9	185.1	279.9	529.9	592.8	611.6	636.1	684.9	710.2	718.7
52.5°	48.8	58.3	157.8	249.0	500.7	564.6	586.3	611.6	657.6	682.1	687.7
55°	45.1	53.5	134.3	216.0	470.6	534.5	558.1	582.4	627.6	648.2	652.0
57.5°	43.2	49.8	114.6	185.1	438.7	500.7	527.1	549.6	591.9	607.8	611.6
60°	40.4	47.0	99.6	158.8	404.0	468.8	491.4	513.9	549.6	562.7	565.5
62.5°	37.5	45.1	88.4	133.4	368.3	431.2	453.7	474.5	504.5	513.9	517.6
65°	35.7	43.2	79.9	114.6	331.7	391.7	414.3	432.2	456.5	466.0	467.8
67.5°	33.8	41.4	73.3	98.6	295.0	352.3	369.2	386.1	404.9	414.3	415.3
70°	31.0	39.4	67.6	87.3	257.4	307.2	321.3	339.1	354.2	358.8	361.7
72.5°	29.1	36.6	63.9	78.9	218.9	263.9	277.1	287.5	300.7	305.3	305.3
75°	26.3	32.9	60.1	70.4	179.4	216.0	227.3	237.7	248.0	249.9	247.0
77.5°	23.4	29.1	51.7	59.2	140.0	171.0	180.4	186.1	194.5	196.3	197.3
80°	19.7	25.4	40.4	46.0	101.4	125.9	132.4	137.2	144.7	144.7	146.5
82.5°	15.0	19.7	29.1	32.9	68.6	86.4	92.1	94.9	99.6	99.6	99.6
85°	9.4	12.2	18.8	21.6	41.4	52.6	56.4	57.3	61.1	62.0	62.0
87.5°	4.7	6.5	12.2	13.2	21.6	27.3	27.3	29.1	29.1	28.2	27.3
90°	8.8	15.8	22.7	24.5	38.5	57.1	66.4	59.0	44.3	33.3	33.3
92.5°	34.9	94.3	153.8	168.7	237.1	328.4	374.0	327.7	235.4	166.1	159.4
95°	83.9	192.6	301.4	328.6	583.5	923.3	1093.2	975.5	740.1	563.6	543.6
97.5°	145.1	241.0	336.9	360.9	785.9	1352.5	1635.8	1561.5	1412.7	1301.2	1263.0
100°	192.2	279.3	366.2	388.0	859.6	1488.3	1802.7	1808.1	1819.1	1827.2	1781.9
102.5°	232.5	313.6	394.8	415.1	893.4	1531.0	1849.9	1944.6	2134.1	2276.3	2237.4
105°	300.6	369.3	438.0	455.2	918.4	1535.9	1844.6	2057.0	2481.9	2800.6	2779.7
107.5°	370.5	434.6	498.7	514.6	923.0	1467.5	1739.8	2036.1	2628.7	3073.2	3078.3
110°	417.7	475.6	533.4	547.9	916.1	1406.9	1652.3	1983.6	2646.2	3143.1	3164.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	464.0	519.1	574.2	588.0	916.3	1354.0	1572.9	1911.9	2590.0	3098.5	3132.0
115°	533.9	584.8	635.7	648.4	924.8	1293.3	1477.6	1804.2	2457.4	2947.3	2993.7
117.5°	602.9	649.1	695.4	706.9	942.0	1255.4	1412.1	1706.9	2296.3	2738.5	2789.9
120°	643.2	686.7	730.2	741.0	955.9	1242.6	1385.9	1655.2	2193.9	2597.8	2647.7
122.5°	682.5	726.4	770.3	781.2	976.0	1235.9	1365.8	1608.3	2093.4	2457.2	2506.4
125°	742.7	782.7	822.8	832.8	1003.1	1230.4	1343.9	1550.0	1962.0	2271.0	2316.3
127.5°	791.7	832.0	872.4	882.5	1030.2	1227.1	1325.5	1502.4	1856.2	2121.6	2159.9
130°	817.9	861.4	905.0	915.8	1050.1	1229.1	1318.6	1476.1	1791.0	2027.2	2062.6
132.5°	845.0	888.5	932.0	942.9	1066.1	1230.4	1312.5	1453.4	1735.4	1946.8	1978.5
135°	885.2	924.8	964.4	974.3	1083.5	1229.1	1302.0	1420.1	1656.2	1833.3	1860.5
137.5°	926.2	965.5	1004.7	1014.5	1109.8	1236.7	1300.2	1400.1	1599.7	1749.4	1771.7
140°	960.3	996.5	1032.5	1041.6	1125.8	1238.0	1294.2	1380.4	1552.8	1682.1	1703.0
142.5°	986.5	1019.9	1053.4	1061.7	1139.2	1242.5	1294.2	1369.9	1521.3	1634.9	1652.8
145°	1026.7	1055.9	1085.0	1092.3	1156.7	1242.5	1285.4	1347.3	1471.2	1564.2	1577.7
147.5°	1066.9	1095.3	1123.6	1130.7	1182.3	1251.0	1285.4	1334.1	1431.5	1504.7	1516.0
150°	1093.2	1118.7	1144.3	1150.8	1195.6	1255.5	1285.4	1326.6	1408.8	1470.6	1479.7
152.5°	1120.2	1139.7	1159.1	1164.0	1204.4	1258.4	1285.4	1320.5	1390.8	1443.5	1450.4
155°	1160.4	1174.8	1189.2	1192.7	1223.6	1264.8	1285.4	1313.3	1369.2	1411.2	1415.8
157.5°	1190.1	1204.1	1218.1	1221.6	1242.9	1271.2	1285.4	1307.1	1350.7	1383.3	1386.4
160°	1210.3	1221.1	1231.9	1234.7	1251.6	1274.1	1285.4	1304.1	1341.3	1369.2	1371.1
162.5°	1230.4	1238.5	1246.6	1248.7	1260.9	1277.2	1285.4	1301.1	1332.5	1356.2	1357.9
165°	1252.2	1259.6	1266.9	1268.7	1274.3	1281.6	1285.4	1296.7	1319.2	1336.1	1338.0
167.5°	1272.3	1275.8	1279.3	1280.1	1284.8	1291.1	1294.2	1301.5	1316.3	1327.3	1328.1
170°	1285.4	1288.8	1292.4	1293.2	1293.5	1294.0	1294.2	1301.5	1316.3	1327.3	1327.3
172.5°	1292.4	1293.1	1294.0	1294.2	1294.2	1294.2	1294.2	1299.9	1311.6	1320.3	1319.6
175°	1302.0	1302.0	1302.0	1302.0	1299.4	1295.9	1294.2	1297.8	1305.2	1310.7	1310.7
177.5°	1302.0	1302.0	1302.0	1302.0	1299.9	1297.2	1295.8	1298.7	1304.6	1309.0	1308.3
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	292.2	292.2
2.5°	311.9	310.0
5°	401.2	403.0
7.5°	540.2	539.3
10°	671.7	680.1
12.5°	767.6	769.4
15°	825.8	829.6
17.5°	848.4	849.3
20°	849.3	847.4
22.5°	838.9	837.1
25°	826.8	825.8
27.5°	815.5	816.4
30°	810.8	813.6
32.5°	810.8	815.5
35°	812.7	817.3
37.5°	811.7	817.3
40°	807.9	814.5
42.5°	797.6	802.3
45°	781.7	787.3
47.5°	760.9	764.8
50°	734.7	738.4
52.5°	701.8	702.7
55°	662.3	666.1
57.5°	620.1	621.0
60°	573.1	575.9
62.5°	523.3	523.3
65°	470.6	472.5
67.5°	416.2	420.9
70°	360.8	361.7
72.5°	306.3	306.3
75°	249.9	250.9
77.5°	196.3	196.3
80°	145.6	146.5
82.5°	100.5	102.4
85°	63.0	63.0
87.5°	29.1	26.3
90°	33.3	33.3
92.5°	133.0	106.6
95°	463.5	383.6
97.5°	1110.8	958.6
100°	1600.5	1419.1
102.5°	2082.1	1926.7
105°	2696.2	2612.7
107.5°	3098.5	3118.6
110°	3251.8	3338.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3265.5	3399.1
115°	3178.9	3364.2
117.5°	2995.3	3200.8
120°	2847.4	3047.0
122.5°	2703.3	2900.2
125°	2497.7	2679.1
127.5°	2312.9	2465.9
130°	2204.0	2345.3
132.5°	2105.0	2231.7
135°	1969.7	2078.8
137.5°	1861.1	1950.4
140°	1786.5	1870.0
142.5°	1724.7	1796.5
145°	1632.1	1686.4
147.5°	1561.0	1606.1
150°	1516.3	1552.8
152.5°	1478.0	1505.6
155°	1434.0	1452.3
157.5°	1399.3	1412.1
160°	1378.5	1385.9
162.5°	1364.9	1371.9
165°	1345.2	1352.6
167.5°	1331.2	1334.3
170°	1327.3	1327.3
172.5°	1316.9	1314.2
175°	1310.7	1310.7
177.5°	1305.1	1302.0
180°	1302.0	1302.0



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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	0.15	0.65	1.30	2.93	12.65	13.31	13.81	14.46	16.09
	3H	0.17	0.77	1.35	1.93	3.57	14.47	15.06	15.64	16.22	17.87
	4H	0.46	1.03	1.64	2.19	3.84	15.10	15.66	16.28	16.83	18.47
	6H	0.70	1.22	1.89	2.38	4.04	15.51	16.03	16.70	17.20	18.86
	8H	0.76	1.26	1.95	2.44	4.09	15.63	16.12	16.82	17.30	18.95
	12H	0.77	1.24	1.97	2.42	4.09	15.68	16.16	16.88	17.33	19.00
4H	2H	6.66	7.23	7.85	8.39	10.04	12.90	13.46	14.09	14.63	16.27
	3H	8.21	8.69	9.41	9.87	11.53	14.92	15.39	16.11	16.58	18.24
	4H	8.30	8.74	9.49	9.91	11.59	15.67	16.11	16.87	17.28	18.96
	6H	8.30	8.67	9.50	9.87	11.54	16.20	16.57	17.40	17.77	19.43
	8H	8.27	8.62	9.47	9.81	11.49	16.35	16.70	17.55	17.89	19.57
	12H	8.22	8.53	9.43	9.73	11.42	16.43	16.75	17.65	17.95	19.64
8H	4H	9.72	10.07	10.92	11.26	12.95	15.72	16.07	16.92	17.25	18.94
	6H	9.96	10.24	11.17	11.47	13.16	16.33	16.62	17.55	17.85	19.53
	8H	9.97	10.22	11.19	11.43	13.13	16.55	16.80	17.77	18.00	19.71
	12H	9.93	10.15	11.16	11.36	13.09	16.68	16.90	17.90	18.10	19.84
12H	4H	9.86	10.17	11.07	11.37	13.06	15.66	15.98	16.87	17.18	18.86
	6H	10.21	10.46	11.43	11.67	13.37	16.31	16.56	17.53	17.77	19.47
	8H	10.27	10.49	11.50	11.70	13.43	16.53	16.75	17.76	17.96	19.69