

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: P937714

Luminaire Tested: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

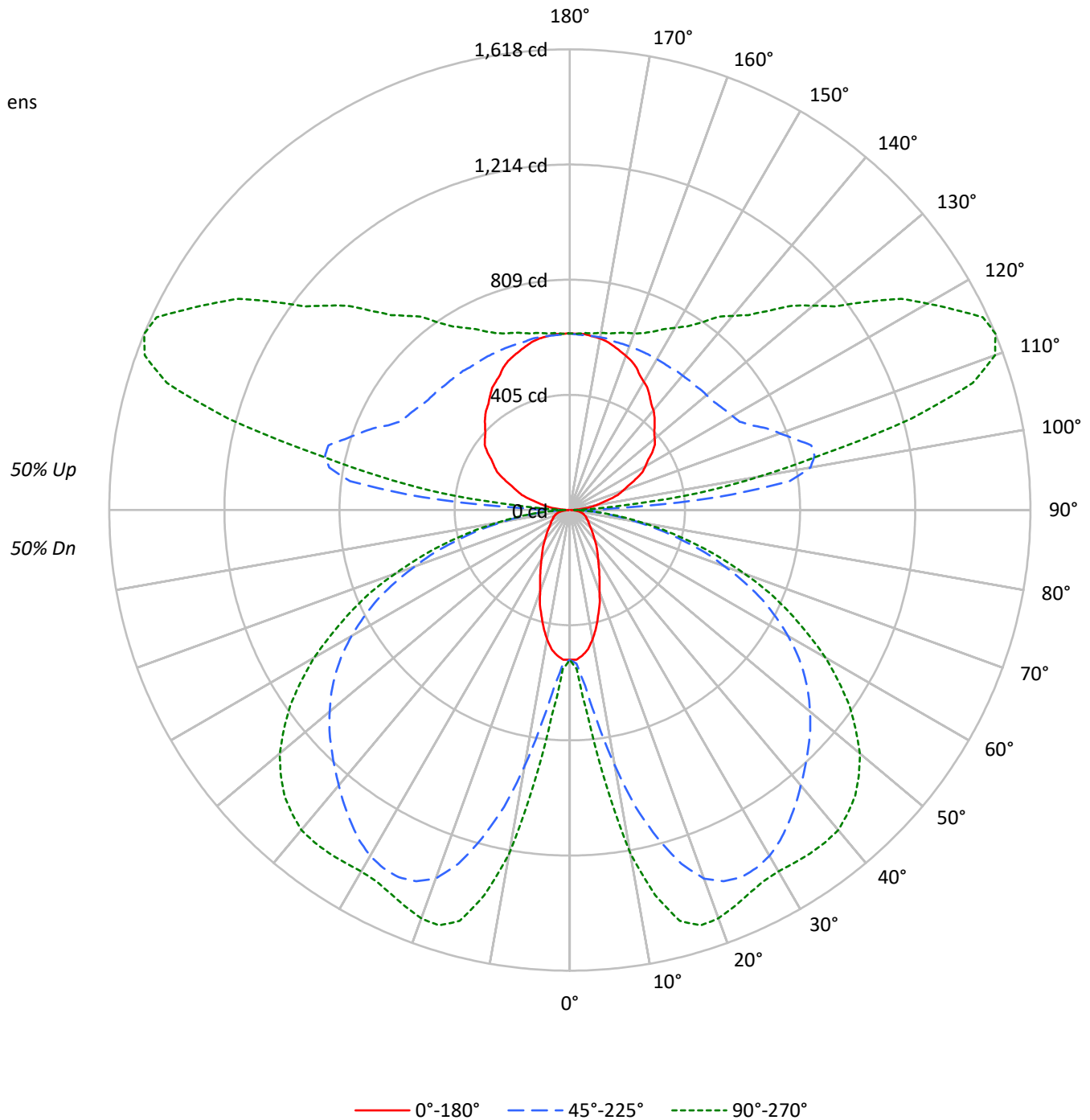
Test Method: LM-79-2019  
Report Number: P937714  
REPORT IS A COMBINATION OF REPORTS P933568 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8091.0 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 68.8  
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: P937714  
CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P937714

CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

**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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

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

	0°	45°	90°
0°	4883	4883	4883
5°	4765	5640	6564
10°	4317	8214	10882
15°	3665	10725	13139
20°	2981	12419	13391
25°	2484	12987	13119
30°	2091	13058	13094
35°	1846	12831	13432
40°	1606	12539	13782
45°	1452	12322	13837
50°	1329	12124	13608
55°	1268	11839	13004
60°	1295	11304	12052
65°	1340	10497	10743
70°	1417	9136	9077
75°	1554	7430	7083
80°	1661	5135	4773
85°	1399	2709	2443

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13837 cd/sqm



TEST NUMBER: P937714

CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.1	0.8
10°-20°	301.7	3.7
20°-30°	527.7	6.5
30°-40°	679.3	8.4
40°-50°	758.8	9.4
50°-60°	726.7	9.0
60°-70°	575.9	7.1
70°-80°	338.7	4.2
80°-90°	96.5	1.2
90°-100°	302.1	3.7
100°-110°	794.2	9.8
110°-120°	823.5	10.2
120°-130°	660.6	8.2
130°-140°	518.3	6.4
140°-150°	397.8	4.9
150°-160°	286.5	3.5
160°-170°	175.3	2.2
170°-180°	59.2	0.7
0°-30°	897.5	11.1
0°-40°	1576.8	19.5
0°-60°	3062.3	37.8
0°-90°	4073.4	50.3
90°-120°	1919.9	23.7
90°-150°	3496.6	43.2
90°-180°	4018.0	49.7
0°-180°	8091.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	526	526	526	526	526	
5°	513	550	619	700	726	47
15°	384	709	1195	1448	1494	107
25°	245	804	1423	1486	1487	113
35°	166	768	1340	1416	1472	104
45°	113	612	1184	1357	1418	88
55°	81	389	1005	1168	1200	74
65°	64	206	746	839	851	64
75°	47	127	410	450	452	50
85°	17	39	102	112	113	18
90°	4	12	32	16	16	5
95°	40	156	520	268	183	44
105°	143	217	878	1333	1244	152
115°	254	309	703	1403	1601	251
125°	354	396	640	1081	1275	314
135°	421	464	620	873	990	326
145°	489	520	612	744	803	306
155°	552	568	612	672	691	254
165°	596	604	612	636	644	168
175°	620	620	616	624	624	59
180°	620	620	620	620	620	



TEST NUMBER: P937714

CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	526.2	526.2	526.2	526.2	526.2	526.2	526.2	526.2	526.2	526.2	526.2
2.5°	526.2	526.2	529.6	531.3	534.7	536.4	539.8	543.2	553.3	555.0	558.4
5°	512.7	519.5	541.5	549.9	573.6	605.8	619.3	641.3	687.0	700.5	709.0
7.5°	492.4	507.6	561.8	575.3	634.5	719.1	754.7	802.1	874.8	910.3	939.1
10°	460.2	492.4	588.8	621.0	717.4	846.0	912.0	978.0	1088.0	1137.1	1155.7
12.5°	424.7	477.2	617.6	661.6	800.4	988.2	1067.7	1140.5	1265.7	1331.7	1341.8
15°	384.1	455.2	644.7	709.0	888.3	1106.6	1194.6	1284.3	1401.1	1448.4	1460.3
17.5°	348.6	438.3	670.1	737.8	956.0	1213.2	1302.9	1377.4	1472.1	1504.3	1512.7
20°	304.6	411.2	687.0	775.0	1027.1	1291.1	1377.4	1434.9	1499.2	1519.5	1522.9
22.5°	272.4	382.4	697.1	788.5	1074.5	1338.4	1411.2	1456.9	1500.9	1507.7	1509.3
25°	245.4	350.3	695.5	803.7	1115.1	1367.2	1423.1	1456.9	1482.3	1485.7	1485.7
27.5°	220.0	314.7	688.7	807.1	1145.5	1374.0	1418.0	1441.7	1453.5	1460.3	1460.3
30°	198.0	280.9	671.8	800.4	1159.1	1367.2	1402.7	1414.6	1426.4	1436.6	1441.7
32.5°	181.1	248.7	646.4	786.8	1160.8	1350.3	1375.7	1382.4	1399.4	1423.1	1431.5
35°	165.8	216.6	617.6	768.2	1150.6	1323.2	1340.1	1346.9	1380.7	1416.3	1428.1
37.5°	150.6	192.9	580.4	736.1	1135.4	1291.1	1302.9	1314.8	1367.2	1409.5	1423.1
40°	135.4	172.6	536.4	700.5	1111.7	1252.1	1262.3	1280.9	1350.3	1399.4	1412.9
42.5°	123.5	155.7	489.0	663.3	1081.2	1208.2	1223.4	1250.5	1330.0	1382.4	1397.7
45°	113.4	138.8	438.3	612.5	1042.3	1162.5	1184.5	1221.7	1306.3	1357.1	1370.6
47.5°	103.2	126.9	385.8	560.1	1000.0	1116.8	1145.5	1187.9	1274.1	1323.2	1335.1
50°	94.8	115.1	333.3	504.2	954.3	1067.7	1101.6	1145.5	1233.5	1279.2	1294.5
52.5°	88.0	104.9	284.3	448.4	901.9	1016.9	1055.9	1101.6	1184.5	1228.5	1238.6
55°	81.2	96.4	242.0	389.2	847.7	962.8	1005.1	1049.1	1130.3	1167.5	1174.3
57.5°	77.8	89.7	206.4	333.3	790.2	901.9	949.3	989.9	1066.0	1094.8	1101.6
60°	72.8	84.6	179.4	286.0	727.6	844.4	885.0	925.6	989.9	1013.6	1018.6
62.5°	67.7	81.2	159.1	240.3	663.3	776.7	817.3	854.5	908.7	925.6	932.3
65°	64.3	77.8	143.8	206.4	597.3	705.6	746.2	778.4	822.4	839.3	842.7
67.5°	60.9	74.5	132.0	177.7	531.3	634.5	665.0	695.5	729.3	746.2	747.9
70°	55.8	71.1	121.8	157.4	463.6	553.3	578.7	610.8	637.9	646.4	651.5
72.5°	52.5	66.0	115.1	142.1	394.3	475.5	499.2	517.8	541.5	549.9	549.9
75°	47.4	59.2	108.3	126.9	323.2	389.2	409.5	428.1	446.7	450.1	445.0
77.5°	42.3	52.5	93.1	106.6	252.1	308.0	324.9	335.0	350.3	353.6	355.3
80°	35.5	45.7	72.8	82.9	182.7	226.7	238.6	247.0	260.6	260.6	264.0
82.5°	27.1	35.5	52.5	59.2	123.5	155.7	165.8	170.9	179.4	179.4	179.4
85°	16.9	22.0	33.8	38.9	74.5	94.8	101.5	103.2	110.0	111.7	111.7
87.5°	8.5	11.8	22.0	23.7	38.9	49.1	49.1	52.5	52.5	50.8	49.1
90°	4.2	7.5	10.8	11.6	18.3	27.2	31.6	28.1	21.1	15.8	15.8
92.5°	16.6	44.9	73.2	80.3	112.9	156.3	178.0	156.0	112.0	79.0	75.9
95°	39.9	91.7	143.5	156.4	277.7	439.4	520.3	464.3	352.3	268.3	258.8
97.5°	69.0	114.7	160.4	171.8	374.1	643.8	778.6	743.2	672.4	619.3	601.2
100°	91.5	132.9	174.3	184.7	409.2	708.5	858.1	860.7	865.8	869.7	848.1
102.5°	110.6	149.3	187.9	197.6	425.3	728.8	880.6	925.7	1015.9	1083.5	1065.0
105°	143.1	175.8	208.5	216.7	437.2	731.1	878.1	979.2	1181.4	1333.1	1323.2
107.5°	176.4	206.9	237.4	245.0	439.4	698.5	828.1	969.2	1251.3	1462.9	1465.3
110°	198.8	226.4	253.9	260.8	436.0	669.7	786.5	944.2	1259.6	1496.1	1506.5



TEST NUMBER: P937714

CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	220.9	247.1	273.3	279.9	436.2	644.5	748.7	910.1	1232.8	1474.9	1490.8
115°	254.1	278.3	302.5	308.6	440.2	615.7	703.4	858.9	1169.8	1403.0	1425.0
117.5°	287.0	309.0	331.0	336.5	448.4	597.6	672.2	812.5	1093.1	1303.6	1328.0
120°	306.1	326.8	347.5	352.7	455.0	591.5	659.7	787.9	1044.3	1236.6	1260.4
122.5°	324.9	345.8	366.7	371.9	464.6	588.3	650.1	765.5	996.4	1169.6	1193.0
125°	353.6	372.6	391.6	396.4	477.5	585.6	639.7	737.8	933.9	1081.0	1102.6
127.5°	376.8	396.0	415.3	420.1	490.4	584.1	631.0	715.2	883.6	1009.9	1028.1
130°	389.3	410.0	430.7	435.9	499.8	585.1	627.7	702.7	852.6	965.0	981.8
132.5°	402.2	422.9	443.6	448.8	507.4	585.6	624.7	691.8	826.0	926.7	941.8
135°	421.4	440.2	459.1	463.8	515.8	585.1	619.8	676.0	788.3	872.6	885.6
137.5°	440.9	459.6	478.2	482.9	528.2	588.7	618.9	666.4	761.4	832.7	843.3
140°	457.1	474.3	491.5	495.8	535.9	589.3	616.0	657.0	739.1	800.7	810.6
142.5°	469.6	485.5	501.4	505.4	542.3	591.4	616.0	652.0	724.1	778.2	786.8
145°	488.7	502.6	516.4	519.9	550.6	591.5	611.9	641.4	700.3	744.5	751.0
147.5°	507.9	521.4	534.8	538.2	562.8	595.5	611.9	635.1	681.5	716.3	721.7
150°	520.3	532.5	544.7	547.8	569.2	597.7	611.9	631.5	670.6	700.0	704.3
152.5°	533.2	542.4	551.7	554.0	573.3	599.0	611.9	628.6	662.0	687.1	690.4
155°	552.4	559.2	566.1	567.8	582.5	602.1	611.9	625.2	651.8	671.7	673.9
157.5°	566.5	573.2	579.8	581.5	591.6	605.1	611.9	622.2	642.9	658.4	659.9
160°	576.1	581.3	586.4	587.7	595.8	606.5	611.9	620.8	638.5	651.8	652.7
162.5°	585.6	589.5	593.4	594.4	600.2	608.0	611.9	619.4	634.3	645.5	646.3
165°	596.0	599.5	603.0	603.9	606.6	610.1	611.9	617.3	628.0	636.0	636.9
167.5°	605.6	607.3	609.0	609.4	611.6	614.5	616.0	619.5	626.5	631.8	632.2
170°	611.9	613.5	615.2	615.6	615.7	615.9	616.0	619.5	626.5	631.8	631.8
172.5°	615.2	615.6	615.9	616.0	616.0	616.0	616.0	618.8	624.3	628.5	628.2
175°	619.8	619.8	619.8	619.8	618.5	616.8	616.0	617.8	621.3	623.9	623.9
177.5°	619.8	619.8	619.8	619.8	618.8	617.5	616.8	618.2	621.0	623.1	622.7
180°	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8



TEST NUMBER: P937714

CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	526.2	526.2
2.5°	561.8	558.4
5°	722.5	725.9
7.5°	973.0	971.3
10°	1209.8	1225.1
12.5°	1382.4	1385.8
15°	1487.4	1494.1
17.5°	1528.0	1529.7
20°	1529.7	1526.3
22.5°	1511.0	1507.7
25°	1489.0	1487.4
27.5°	1468.7	1470.4
30°	1460.3	1465.4
32.5°	1460.3	1468.7
35°	1463.7	1472.1
37.5°	1462.0	1472.1
40°	1455.2	1467.0
42.5°	1436.6	1445.0
45°	1407.8	1418.0
47.5°	1370.6	1377.4
50°	1323.2	1330.0
52.5°	1264.0	1265.7
55°	1192.9	1199.7
57.5°	1116.8	1118.5
60°	1032.2	1037.3
62.5°	942.5	942.5
65°	847.7	851.1
67.5°	749.6	758.1
70°	649.8	651.5
72.5°	551.6	551.6
75°	450.1	451.8
77.5°	353.6	353.6
80°	262.3	264.0
82.5°	181.1	184.4
85°	113.4	113.4
87.5°	52.5	47.4
90°	15.8	15.8
92.5°	63.3	50.7
95°	220.7	182.6
97.5°	528.7	456.3
100°	761.8	675.5
102.5°	991.1	917.2
105°	1283.4	1243.7
107.5°	1474.9	1484.5
110°	1547.9	1589.3





TEST NUMBER: P937714

CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1554.4	1618.0
115°	1513.2	1601.4
117.5°	1425.8	1523.6
120°	1355.4	1450.4
122.5°	1286.8	1380.5
125°	1188.9	1275.3
127.5°	1101.0	1173.8
130°	1049.1	1116.4
132.5°	1002.0	1062.3
135°	937.5	989.5
137.5°	885.9	928.4
140°	850.4	890.1
142.5°	821.0	855.2
145°	776.9	802.8
147.5°	743.1	764.5
150°	721.7	739.1
152.5°	703.5	716.7
155°	682.6	691.3
157.5°	666.1	672.2
160°	656.2	659.7
162.5°	649.7	653.0
165°	640.4	643.9
167.5°	633.6	635.1
170°	631.8	631.8
172.5°	626.9	625.6
175°	623.9	623.9
177.5°	621.3	619.8
180°	619.8	619.8



TEST NUMBER: P937714  
 CATALOG NUMBER: SQ4-FB-100U-125D-835-1D-UNV-STD-W-4

**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	6.53	7.43	7.48	8.40	9.67	19.67	20.57	20.62	21.54	22.81
	3H	7.24	8.05	8.20	9.03	10.32	21.50	22.31	22.46	23.29	24.57
	4H	7.54	8.31	8.51	9.29	10.59	22.14	22.90	23.11	23.89	25.18
	6H	7.80	8.51	8.78	9.49	10.80	22.56	23.27	23.54	24.25	25.56
	8H	7.87	8.54	8.85	9.55	10.85	22.67	23.35	23.66	24.35	25.66
	12H	7.88	8.53	8.88	9.53	10.86	22.73	23.38	23.73	24.38	25.71
4H	2H	13.73	14.50	14.70	15.48	16.77	19.95	20.72	20.93	21.70	23.00
	3H	15.30	15.95	16.29	16.96	18.26	21.99	22.63	22.97	23.64	24.95
	4H	15.40	15.99	16.40	16.99	18.32	22.75	23.34	23.74	24.34	25.67
	6H	15.41	15.92	16.42	16.95	18.28	23.27	23.78	24.28	24.81	26.14
	8H	15.39	15.87	16.40	16.89	18.23	23.43	23.91	24.44	24.93	26.27
	12H	15.35	15.78	16.38	16.82	18.17	23.52	23.95	24.55	24.98	26.33
8H	4H	16.84	17.31	17.85	18.33	19.68	22.81	23.29	23.82	24.31	25.65
	6H	17.08	17.48	18.12	18.54	19.88	23.43	23.82	24.46	24.89	26.23
	8H	17.10	17.45	18.14	18.50	19.86	23.64	23.99	24.68	25.04	26.40
	12H	17.07	17.38	18.12	18.42	19.82	23.78	24.09	24.83	25.13	26.53
12H	4H	16.98	17.41	18.01	18.45	19.80	22.77	23.20	23.79	24.23	25.58
	6H	17.34	17.69	18.38	18.73	20.09	23.41	23.76	24.45	24.81	26.17
	8H	17.41	17.72	18.46	18.76	20.16	23.64	23.94	24.68	24.99	26.39