

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: P938083

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938083  
REPORT IS A COMBINATION OF REPORTS P933599 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-4-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

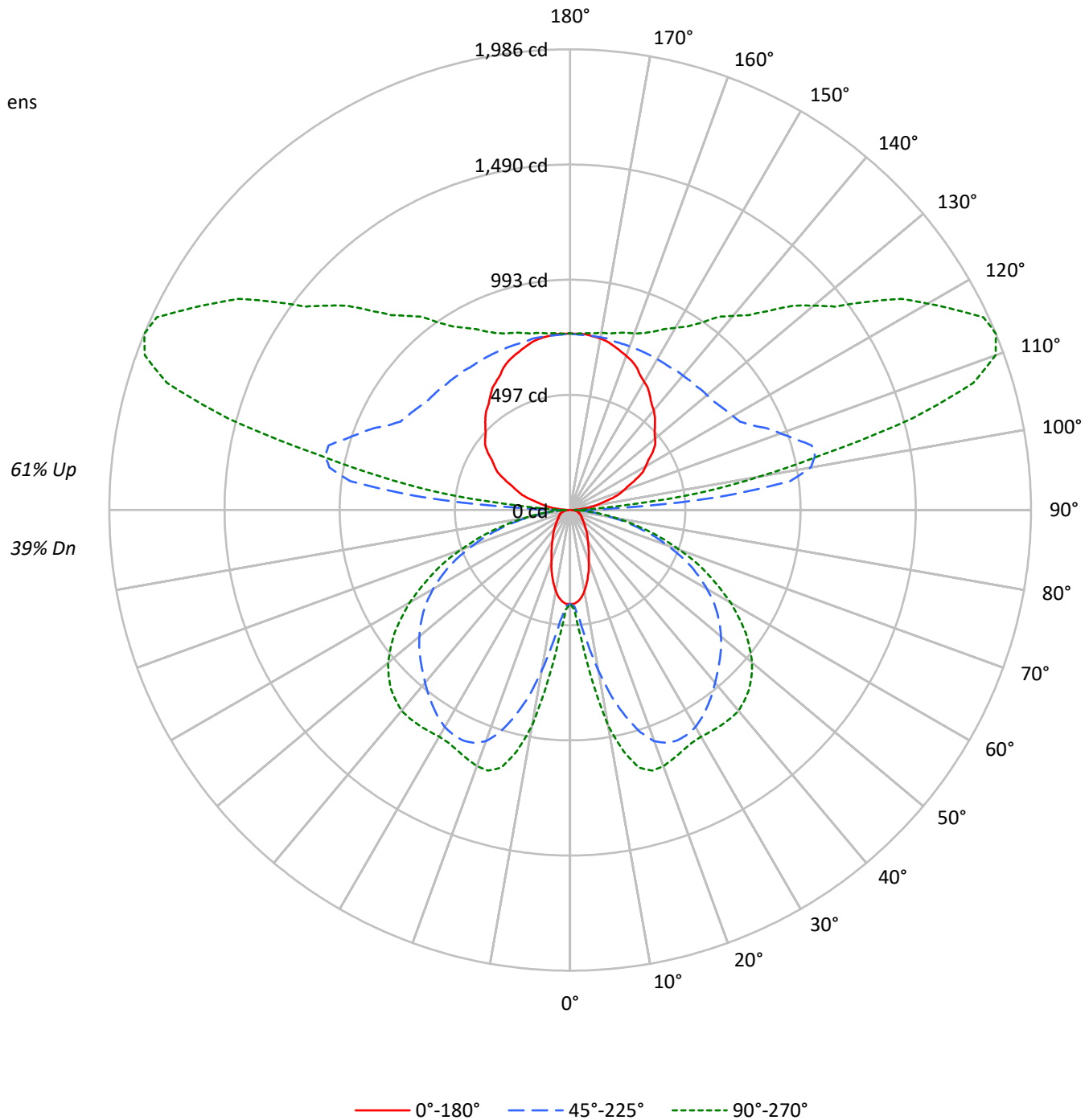
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8068.4 lumens  
Efficiency: N/A  
Efficacy: 125.3 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: Semi-Indirect

Input Watts (W): 64.4  
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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CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-4-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P938083

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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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8

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

	0°	45°	90°
0°	3759	3759	3759
5°	3669	4342	5054
10°	3325	6325	8378
15°	2822	8258	10117
20°	2295	9562	10310
25°	1912	9998	10101
30°	1610	10055	10082
35°	1422	9879	10343
40°	1236	9654	10612
45°	1118	9487	10654
50°	1023	9335	10478
55°	976	9116	10013
60°	996	8704	9280
65°	1032	8082	8271
70°	1092	7035	6988
75°	1197	5721	5454
80°	1278	3953	3674
85°	1076	2087	1881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10654 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.4	0.6
10°-20°	232.3	2.9
20°-30°	406.3	5.0
30°-40°	523.0	6.5
40°-50°	584.2	7.2
50°-60°	559.6	6.9
60°-70°	443.5	5.5
70°-80°	260.8	3.2
80°-90°	75.3	0.9
90°-100°	370.8	4.6
100°-110°	974.8	12.1
110°-120°	1010.8	12.5
120°-130°	810.8	10.0
130°-140°	636.2	7.9
140°-150°	488.3	6.1
150°-160°	351.6	4.4
160°-170°	215.2	2.7
170°-180°	72.7	0.9
<b>0°-30°</b>	<b>691.0</b>	<b>8.6</b>
<b>0°-40°</b>	<b>1214.1</b>	<b>15.0</b>
<b>0°-60°</b>	<b>2357.8</b>	<b>29.2</b>
<b>0°-90°</b>	<b>3137.4</b>	<b>38.9</b>
<b>90°-120°</b>	<b>2356.4</b>	<b>29.2</b>
<b>90°-150°</b>	<b>4291.6</b>	<b>53.2</b>
<b>90°-180°</b>	<b>4931.0</b>	<b>61.1</b>
<b>0°-180°</b>	<b>8068.4</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	405	405	405	405	405	
5°	395	423	477	539	559	36
15°	296	546	920	1115	1150	82
25°	189	619	1096	1144	1145	87
35°	128	592	1032	1090	1134	80
45°	87	472	912	1045	1092	68
55°	62	300	774	899	924	57
65°	50	159	574	646	655	49
75°	36	98	315	347	348	38
85°	13	30	78	86	87	14
90°	5	14	39	19	19	5
95°	49	192	639	329	224	54
105°	176	266	1078	1636	1526	186
115°	312	379	863	1722	1966	308
125°	434	486	785	1327	1565	385
135°	517	569	761	1071	1214	400
145°	600	638	751	914	985	376
155°	678	697	751	824	848	312
165°	732	741	751	780	790	206
175°	761	761	756	766	766	72
180°	761	761	761	761	761	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1
2.5°	405.1	405.1	407.8	409.1	411.7	413.0	415.6	418.2	426.1	427.3	429.9
5°	394.8	400.0	416.9	423.4	441.6	466.4	476.8	493.8	529.0	539.3	545.8
7.5°	379.1	390.9	432.6	443.0	488.6	553.7	581.0	617.5	673.5	700.9	723.0
10°	354.4	379.1	453.4	478.1	552.4	651.5	702.2	753.0	837.7	875.5	889.9
12.5°	327.1	367.4	475.5	509.4	616.2	760.9	822.1	878.1	974.6	1025.3	1033.1
15°	295.7	350.4	496.4	545.8	684.0	852.1	919.8	988.9	1078.8	1115.3	1124.3
17.5°	268.4	337.4	515.9	568.0	736.1	934.1	1003.2	1060.5	1133.5	1158.3	1164.8
20°	234.5	316.6	529.0	596.7	790.9	994.1	1060.5	1104.8	1154.3	1170.0	1172.6
22.5°	209.7	294.4	536.8	607.1	827.3	1030.6	1086.6	1121.8	1155.6	1160.8	1162.1
25°	188.9	269.7	535.5	618.8	858.6	1052.7	1095.6	1121.8	1141.3	1143.9	1143.9
27.5°	169.4	242.4	530.3	621.5	882.0	1057.9	1091.8	1110.0	1119.1	1124.3	1124.3
30°	152.4	216.2	517.3	616.2	892.4	1052.7	1080.1	1089.1	1098.3	1106.1	1110.0
32.5°	139.4	191.5	497.7	605.8	893.7	1039.6	1059.2	1064.4	1077.4	1095.6	1102.2
35°	127.7	166.7	475.5	591.5	885.9	1018.8	1031.8	1037.1	1063.1	1090.5	1099.6
37.5°	116.0	148.5	446.9	566.8	874.2	994.1	1003.2	1012.3	1052.7	1085.3	1095.6
40°	104.2	132.9	413.0	539.3	855.9	964.1	971.9	986.3	1039.6	1077.4	1087.9
42.5°	95.1	119.9	376.6	510.7	832.5	930.2	941.9	962.8	1024.1	1064.4	1076.1
45°	87.3	106.8	337.4	471.6	802.5	895.1	912.0	940.6	1005.8	1044.9	1055.3
47.5°	79.5	97.7	297.1	431.3	770.0	859.9	882.0	914.6	981.1	1018.8	1027.9
50°	73.0	88.6	256.7	388.3	734.8	822.1	848.2	882.0	949.8	984.9	996.6
52.5°	67.7	80.8	218.9	345.3	694.4	783.0	813.0	848.2	912.0	945.9	953.7
55°	62.5	74.2	186.4	299.6	652.7	741.3	773.9	807.7	870.3	898.9	904.2
57.5°	59.9	69.0	158.9	256.7	608.5	694.4	730.9	762.2	820.7	842.9	848.2
60°	56.0	65.2	138.1	220.2	560.2	650.1	681.4	712.7	762.2	780.4	784.3
62.5°	52.2	62.5	122.5	185.0	510.7	598.0	629.3	658.0	699.7	712.7	717.9
65°	49.5	59.9	110.7	158.9	459.9	543.3	574.5	599.3	633.2	646.2	648.8
67.5°	46.9	57.3	101.7	136.8	409.1	488.6	512.0	535.5	561.5	574.5	575.8
70°	43.0	54.7	93.8	121.2	356.9	426.1	445.6	470.3	491.1	497.7	501.6
72.5°	40.4	50.8	88.6	109.4	303.6	366.1	384.3	398.6	416.9	423.4	423.4
75°	36.5	45.6	83.4	97.7	248.9	299.6	315.3	329.6	343.9	346.6	342.6
77.5°	32.5	40.4	71.7	82.0	194.1	237.1	250.1	257.9	269.7	272.3	273.6
80°	27.3	35.2	56.0	63.8	140.7	174.6	183.7	190.2	200.7	200.7	203.2
82.5°	20.8	27.3	40.4	45.6	95.1	119.9	127.7	131.6	138.1	138.1	138.1
85°	13.0	17.0	26.0	30.0	57.3	73.0	78.2	79.5	84.7	86.0	86.0
87.5°	6.5	9.1	17.0	18.2	30.0	37.8	37.8	40.4	40.4	39.0	37.8
90°	5.1	9.2	13.3	14.3	22.5	33.3	38.7	34.4	25.8	19.4	19.4
92.5°	20.4	55.1	89.8	98.5	138.5	191.9	218.5	191.5	137.5	97.0	93.2
95°	49.0	112.5	176.1	192.0	340.9	539.3	638.6	569.9	432.5	329.3	317.6
97.5°	84.7	140.7	196.8	210.8	459.1	790.1	955.6	912.1	825.3	760.1	737.9
100°	112.3	163.2	214.0	226.7	502.2	869.5	1053.1	1056.3	1062.7	1067.4	1040.9
102.5°	135.8	183.2	230.6	242.5	521.9	894.5	1080.8	1136.2	1246.9	1329.9	1307.2
105°	175.6	215.8	256.0	266.0	536.6	897.4	1077.7	1201.8	1450.0	1636.2	1623.9
107.5°	216.4	253.9	291.4	300.7	539.3	857.4	1016.5	1189.6	1535.8	1795.4	1798.4
110°	244.0	277.9	311.6	320.1	535.2	822.0	965.4	1158.9	1546.0	1836.3	1849.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	271.1	303.3	335.4	343.5	535.3	791.1	919.0	1117.0	1513.2	1810.3	1829.8
115°	311.9	341.6	371.4	378.8	540.3	755.6	863.2	1054.0	1435.7	1722.0	1749.0
117.5°	352.3	379.3	406.3	413.0	550.4	733.5	825.0	997.1	1341.6	1599.9	1629.9
120°	375.8	401.2	426.6	433.0	558.6	726.0	809.7	967.1	1281.7	1517.7	1546.9
122.5°	398.7	424.4	450.0	456.4	570.3	722.0	798.0	939.7	1223.0	1435.5	1464.3
125°	433.9	457.3	480.7	486.5	586.1	718.8	785.2	905.5	1146.2	1326.8	1353.3
127.5°	462.5	486.1	509.7	515.6	601.9	716.9	774.4	877.7	1084.5	1239.5	1261.9
130°	477.8	503.3	528.7	535.0	613.5	718.1	770.4	862.4	1046.3	1184.4	1205.0
132.5°	493.7	519.1	544.6	550.9	622.9	718.8	766.8	849.1	1013.9	1137.4	1155.9
135°	517.2	540.3	563.4	569.2	633.0	718.1	760.7	829.7	967.7	1071.1	1087.1
137.5°	541.1	564.0	587.0	592.7	648.3	722.5	759.6	817.9	934.5	1022.0	1035.0
140°	561.0	582.1	603.2	608.6	657.8	723.3	756.1	806.4	907.2	982.7	995.0
142.5°	576.3	595.8	615.4	620.3	665.6	725.9	756.1	800.3	888.8	955.1	965.6
145°	599.9	616.8	633.9	638.1	675.7	725.9	750.9	787.1	859.5	913.8	921.8
147.5°	623.3	639.9	656.5	660.6	690.7	730.8	750.9	779.4	836.4	879.1	885.7
150°	638.6	653.6	668.6	672.4	698.6	733.5	750.9	775.0	823.1	859.2	864.5
152.5°	654.5	665.8	677.2	680.0	703.7	735.2	750.9	771.4	812.6	843.3	847.4
155°	678.0	686.4	694.7	696.8	714.8	738.9	750.9	767.3	799.9	824.5	827.2
157.5°	695.3	703.5	711.6	713.7	726.1	742.7	750.9	763.7	789.1	808.1	810.0
160°	707.1	713.4	719.8	721.4	731.2	744.3	750.9	761.8	783.6	799.9	801.0
162.5°	718.8	723.5	728.4	729.5	736.6	746.2	750.9	760.1	778.5	792.3	793.3
165°	731.5	735.9	740.2	741.3	744.5	748.8	750.9	757.5	770.7	780.5	781.6
167.5°	743.3	745.3	747.4	747.9	750.6	754.3	756.1	760.4	769.0	775.5	776.0
170°	750.9	753.0	755.1	755.6	755.8	756.0	756.1	760.4	769.0	775.5	775.5
172.5°	755.1	755.5	756.0	756.1	756.1	756.1	756.1	759.4	766.2	771.3	771.0
175°	760.7	760.7	760.7	760.7	759.1	757.1	756.1	758.2	762.5	765.7	765.7
177.5°	760.7	760.7	760.7	760.7	759.5	757.8	757.1	758.7	762.2	764.7	764.2
180°	760.7	760.7	760.7	760.7	760.7	760.7	760.7	760.7	760.7	760.7	760.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	405.1	405.1
2.5°	432.6	429.9
5°	556.3	559.0
7.5°	749.2	747.8
10°	931.6	943.2
12.5°	1064.4	1067.0
15°	1145.2	1150.4
17.5°	1176.5	1177.8
20°	1177.8	1175.1
22.5°	1163.5	1160.8
25°	1146.5	1145.2
27.5°	1130.8	1132.1
30°	1124.3	1128.3
32.5°	1124.3	1130.8
35°	1127.0	1133.5
37.5°	1125.6	1133.5
40°	1120.5	1129.6
42.5°	1106.1	1112.6
45°	1084.0	1091.8
47.5°	1055.3	1060.5
50°	1018.8	1024.1
52.5°	973.2	974.6
55°	918.5	923.7
57.5°	859.9	861.2
60°	794.7	798.7
62.5°	725.7	725.7
65°	652.7	655.3
67.5°	577.2	583.7
70°	500.3	501.6
72.5°	424.8	424.8
75°	346.6	347.9
77.5°	272.3	272.3
80°	201.9	203.2
82.5°	139.4	142.0
85°	87.3	87.3
87.5°	40.4	36.5
90°	19.4	19.4
92.5°	77.7	62.3
95°	270.9	224.1
97.5°	649.0	560.0
100°	935.0	829.0
102.5°	1216.4	1125.7
105°	1575.2	1526.4
107.5°	1810.2	1822.0
110°	1899.8	1950.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1907.8	1985.9
115°	1857.2	1965.5
117.5°	1750.0	1869.9
120°	1663.5	1780.1
122.5°	1579.3	1694.3
125°	1459.2	1565.2
127.5°	1351.2	1440.6
130°	1287.6	1370.2
132.5°	1229.8	1303.8
135°	1150.8	1214.5
137.5°	1087.3	1139.4
140°	1043.7	1092.5
142.5°	1007.6	1049.6
145°	953.6	985.3
147.5°	912.0	938.3
150°	885.9	907.2
152.5°	863.4	879.6
155°	837.8	848.5
157.5°	817.5	825.0
160°	805.4	809.7
162.5°	797.5	801.5
165°	785.9	790.3
167.5°	777.8	779.5
170°	775.5	775.5
172.5°	769.4	767.8
175°	765.7	765.7
177.5°	762.5	760.7
180°	760.7	760.7



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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	4.48	5.28	5.52	6.33	7.75	17.62	18.42	18.66	19.47	20.89
	3H	5.18	5.90	6.23	6.96	8.39	19.44	20.16	20.49	21.22	22.65
	4H	5.48	6.16	6.54	7.22	8.66	20.07	20.75	21.13	21.81	23.26
	6H	5.72	6.35	6.80	7.42	8.87	20.49	21.11	21.56	22.18	23.64
	8H	5.79	6.39	6.87	7.47	8.92	20.60	21.20	21.68	22.28	23.73
	12H	5.81	6.37	6.89	7.45	8.92	20.66	21.23	21.74	22.30	23.78
4H	2H	11.66	12.34	12.73	13.40	14.85	17.89	18.57	18.96	19.63	21.07
	3H	13.23	13.80	14.30	14.88	16.34	19.91	20.48	20.99	21.57	23.03
	4H	13.32	13.84	14.40	14.92	16.40	20.67	21.19	21.75	22.27	23.75
	6H	13.33	13.78	14.42	14.88	16.35	21.19	21.64	22.28	22.74	24.21
	8H	13.30	13.72	14.39	14.82	16.31	21.34	21.76	22.43	22.86	24.35
	12H	13.26	13.64	14.37	14.74	16.24	21.43	21.81	22.53	22.91	24.41
8H	4H	14.75	15.17	15.84	16.26	17.75	20.72	21.14	21.81	22.24	23.73
	6H	14.99	15.34	16.10	16.47	17.96	21.34	21.68	22.45	22.82	24.31
	8H	15.01	15.31	16.13	16.43	17.93	21.55	21.85	22.67	22.97	24.48
	12H	14.97	15.24	16.10	16.35	17.90	21.68	21.95	22.81	23.06	24.61
12H	4H	14.89	15.27	16.00	16.37	17.87	20.67	21.05	21.78	22.16	23.65
	6H	15.24	15.55	16.36	16.67	18.17	21.32	21.62	22.44	22.74	24.25
	8H	15.31	15.58	16.43	16.69	18.23	21.54	21.81	22.66	22.92	24.46