

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: P936728

Luminaire Tested: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

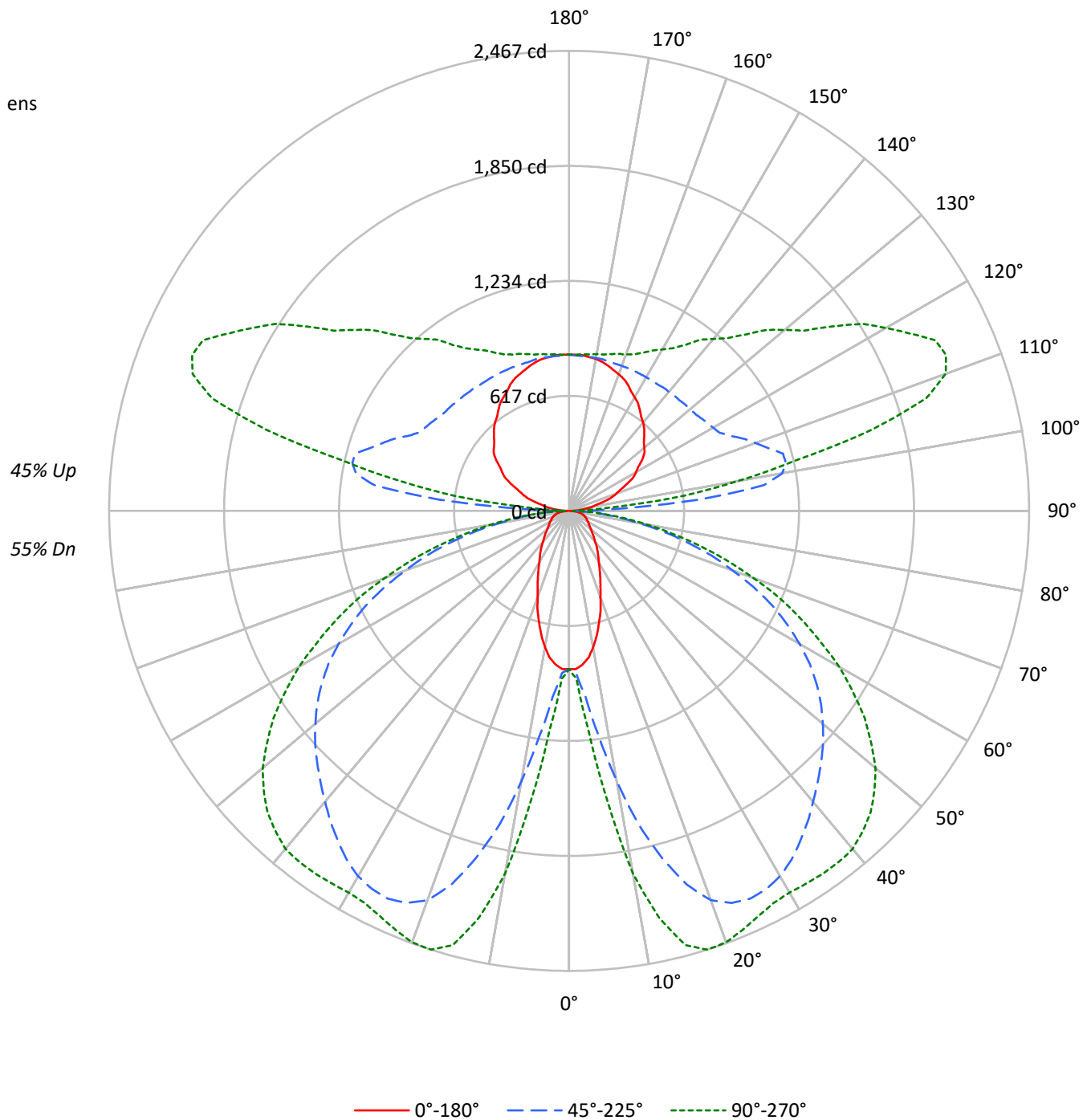
Test Method: LM-79-2019  
Report Number: P936728  
REPORT IS A COMBINATION OF REPORTS P933462 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12001.7 lumens  
Efficiency: N/A  
Efficacy: 109.9 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): 109.2  
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	50	30	10
RCR																				
0	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55		
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45		
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37		
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30		
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25		
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21		
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18		
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16		
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14		
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12		
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11		

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

	0°	45°	90°
0°	2625	2625	2625
5°	2566	3035	3529
10°	2328	4425	5850
15°	1979	5783	7064
20°	1612	6703	7199
25°	1345	7016	7053
30°	1135	7062	7039
35°	1004	6947	7221
40°	875	6796	7410
45°	793	6686	7439
50°	728	6588	7315
55°	698	6444	6991
60°	715	6164	6479
65°	746	5736	5776
70°	797	5006	4879
75°	885	4085	3807
80°	975	2837	2566
85°	885	1507	1313

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7439 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.8	0.9
10°-20°	486.6	4.1
20°-30°	851.1	7.1
30°-40°	1095.6	9.1
40°-50°	1223.8	10.2
50°-60°	1172.1	9.8
60°-70°	928.9	7.7
70°-80°	546.2	4.6
80°-90°	154.9	1.3
90°-100°	408.5	3.4
100°-110°	1074.0	8.9
110°-120°	1113.6	9.3
120°-130°	893.3	7.4
130°-140°	700.9	5.8
140°-150°	538.0	4.5
150°-160°	387.4	3.2
160°-170°	237.0	2.0
170°-180°	80.1	0.7
0°-30°	1447.5	12.1
0°-40°	2543.1	21.2
0°-60°	4938.9	41.2
0°-90°	6568.9	54.7
90°-120°	2596.1	21.6
90°-150°	4728.2	39.4
90°-180°	5433.0	45.3
0°-180°	12001.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	849	849	849	849	849	
5°	827	887	999	1130	1171	76
15°	620	1144	1927	2336	2410	172
25°	396	1296	2295	2396	2399	182
35°	267	1239	2161	2284	2374	167
45°	183	988	1910	2189	2287	141
55°	131	628	1621	1883	1935	119
65°	104	333	1204	1354	1373	103
75°	76	205	660	726	729	80
85°	27	63	164	180	183	29
90°	6	16	43	21	21	6
95°	54	212	704	363	247	60
105°	194	293	1187	1803	1682	205
115°	344	417	951	1897	2166	339
125°	478	536	865	1462	1724	424
135°	570	627	838	1180	1338	441
145°	661	703	827	1007	1086	414
155°	747	768	827	908	935	343
165°	806	817	827	860	871	227
175°	838	838	833	844	844	80
180°	838	838	838	838	838	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7
2.5°	848.7	848.7	854.1	856.9	862.3	865.1	870.5	876.0	892.4	895.1	900.5
5°	826.9	837.8	873.3	886.9	925.1	977.0	998.8	1034.3	1108.0	1129.9	1143.5
7.5°	794.1	818.7	906.0	927.8	1023.3	1159.9	1217.2	1293.6	1410.9	1468.2	1514.6
10°	742.3	794.1	949.7	1001.5	1157.1	1364.5	1471.0	1577.4	1754.8	1833.9	1863.9
12.5°	685.0	769.6	996.1	1067.1	1290.9	1593.8	1722.0	1839.4	2041.3	2147.7	2164.1
15°	619.5	734.1	1039.8	1143.5	1432.8	1784.8	1926.7	2071.3	2259.6	2336.0	2355.1
17.5°	562.2	706.8	1080.7	1189.9	1541.9	1956.7	2101.4	2221.4	2374.2	2426.1	2439.7
20°	491.2	663.1	1108.0	1249.9	1656.5	2082.3	2221.4	2314.2	2417.9	2450.7	2456.1
22.5°	439.4	616.7	1124.4	1271.8	1732.9	2158.7	2276.0	2349.7	2420.6	2431.6	2434.3
25°	395.7	564.9	1121.7	1296.3	1798.4	2205.1	2295.1	2349.7	2390.6	2396.1	2396.1
27.5°	354.8	507.6	1110.8	1301.8	1847.6	2216.0	2286.9	2325.1	2344.2	2355.1	2355.1
30°	319.3	453.0	1083.5	1290.9	1869.4	2205.1	2262.4	2281.5	2300.6	2316.9	2325.1
32.5°	292.0	401.1	1042.5	1269.0	1872.1	2177.8	2218.7	2229.6	2256.9	2295.1	2308.7
35°	267.4	349.3	996.1	1239.0	1855.8	2134.1	2161.4	2172.3	2226.9	2284.2	2303.3
37.5°	242.9	311.1	936.0	1187.2	1831.2	2082.3	2101.4	2120.5	2205.1	2273.3	2295.1
40°	218.3	278.3	865.1	1129.9	1793.0	2019.5	2035.9	2065.9	2177.8	2256.9	2278.7
42.5°	199.2	251.1	788.7	1069.8	1743.9	1948.5	1973.1	2016.8	2145.0	2229.6	2254.2
45°	182.8	223.8	706.8	987.9	1681.1	1874.9	1910.3	1970.4	2106.8	2188.7	2210.5
47.5°	166.5	204.7	622.2	903.3	1612.9	1801.2	1847.6	1915.8	2055.0	2134.1	2153.2
50°	152.8	185.6	537.6	813.2	1539.2	1722.0	1776.6	1847.6	1989.5	2063.1	2087.7
52.5°	141.9	169.2	458.5	723.2	1454.6	1640.2	1702.9	1776.6	1910.3	1981.3	1997.7
55°	131.0	155.5	390.2	627.6	1367.3	1552.8	1621.1	1692.0	1823.0	1883.0	1894.0
57.5°	125.5	144.6	332.9	537.6	1274.5	1454.6	1531.0	1596.5	1719.3	1765.7	1776.6
60°	117.3	136.4	289.3	461.2	1173.5	1361.8	1427.3	1492.8	1596.5	1634.7	1642.9
62.5°	109.2	131.0	256.5	387.5	1069.8	1252.7	1318.2	1378.2	1465.5	1492.8	1503.7
65°	103.7	125.5	232.0	332.9	963.3	1138.0	1203.5	1255.4	1326.3	1353.6	1359.1
67.5°	98.2	120.1	212.9	286.5	856.9	1023.3	1072.6	1121.7	1176.3	1203.5	1206.3
70°	90.1	114.6	196.5	253.8	747.7	892.4	933.3	985.1	1028.8	1042.5	1050.7
72.5°	84.6	106.4	185.6	229.2	635.8	766.8	805.0	835.0	873.3	886.9	886.9
75°	76.4	95.5	174.7	204.7	521.2	627.6	660.4	690.4	720.4	725.9	717.7
77.5°	68.2	84.6	150.1	171.9	406.6	496.7	524.0	540.3	564.9	570.3	573.1
80°	57.3	73.7	117.3	133.7	294.7	365.7	384.8	398.4	420.3	420.3	425.7
82.5°	43.7	57.3	84.6	95.5	199.2	251.1	267.4	275.6	289.3	289.3	289.3
85°	27.3	35.5	54.6	62.8	120.1	152.8	163.7	166.5	177.4	180.1	180.1
87.5°	13.6	19.1	35.5	38.2	62.8	79.1	79.1	84.6	84.6	81.9	79.1
90°	5.6	10.1	14.6	15.7	24.7	36.7	42.8	38.0	28.5	21.4	21.4
92.5°	22.5	60.7	99.0	108.5	152.5	211.3	240.7	210.9	151.5	106.9	102.6
95°	54.0	124.0	194.0	211.5	375.5	594.3	703.6	627.8	476.4	362.8	349.8
97.5°	93.3	155.1	216.9	232.3	505.8	870.5	1052.9	1005.1	909.3	837.5	813.0
100°	123.7	179.7	235.7	249.7	553.2	957.9	1160.3	1163.8	1170.8	1176.1	1146.9
102.5°	149.6	201.8	254.1	267.2	575.0	985.5	1190.7	1251.7	1373.6	1465.2	1440.1
105°	193.5	237.7	281.9	293.0	591.1	988.6	1187.3	1324.1	1597.5	1802.6	1789.2
107.5°	238.5	279.7	321.0	331.3	594.2	944.7	1119.9	1310.6	1692.1	1978.2	1981.5
110°	268.9	306.1	343.4	352.7	589.6	905.6	1063.6	1276.9	1703.3	2023.1	2037.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	298.6	334.1	369.6	378.5	589.8	871.5	1012.4	1230.6	1667.1	1994.5	2015.9
115°	343.7	376.4	409.2	417.3	595.3	832.5	951.1	1161.3	1581.8	1897.1	1927.0
117.5°	388.1	417.8	447.5	455.0	606.3	808.0	908.9	1098.7	1478.1	1762.7	1795.7
120°	414.0	442.0	469.9	476.9	615.3	799.8	892.1	1065.5	1412.1	1672.2	1704.3
122.5°	439.3	467.6	495.8	502.8	628.3	795.5	879.1	1035.2	1347.4	1581.6	1613.2
125°	478.1	503.8	529.6	536.0	645.8	791.9	865.1	997.7	1262.8	1461.8	1491.0
127.5°	509.6	535.6	561.6	568.1	663.1	789.8	853.2	967.1	1194.8	1365.6	1390.3
130°	526.5	554.5	582.4	589.4	675.9	791.1	848.8	950.1	1152.9	1304.9	1327.6
132.5°	543.9	571.9	599.9	606.9	686.2	791.9	844.8	935.6	1117.0	1253.1	1273.5
135°	569.8	595.3	620.7	627.1	697.4	791.2	838.0	914.1	1066.1	1180.1	1197.6
137.5°	596.2	621.5	646.8	653.0	714.3	796.1	837.0	901.2	1029.7	1126.0	1140.4
140°	618.1	641.4	664.6	670.4	724.6	796.8	833.0	888.4	999.5	1082.7	1096.2
142.5°	635.0	656.5	678.0	683.4	733.3	799.8	833.0	881.7	979.2	1052.4	1063.9
145°	660.9	679.6	698.3	703.1	744.5	799.8	827.4	867.2	947.0	1006.8	1015.5
147.5°	686.8	705.0	723.3	727.8	761.0	805.3	827.4	858.8	921.6	968.6	975.9
150°	703.6	720.1	736.6	740.7	769.6	808.1	827.4	853.9	906.8	946.6	952.5
152.5°	721.1	733.5	746.1	749.2	775.3	810.0	827.4	850.1	895.3	929.2	933.7
155°	746.9	756.2	765.5	767.7	787.7	814.1	827.4	845.4	881.3	908.4	911.3
157.5°	766.1	775.1	784.0	786.3	800.0	818.3	827.4	841.4	869.3	890.4	892.4
160°	779.0	786.0	793.0	794.7	805.7	820.1	827.4	839.4	863.3	881.3	882.5
162.5°	791.9	797.2	802.5	803.8	811.7	822.1	827.4	837.5	857.7	872.9	874.0
165°	806.0	810.8	815.5	816.7	820.2	825.0	827.4	834.7	849.1	860.0	861.2
167.5°	818.9	821.1	823.4	823.9	827.0	831.0	833.0	837.7	847.2	854.3	854.9
170°	827.4	829.6	831.9	832.4	832.6	832.9	833.0	837.7	847.2	854.3	854.3
172.5°	831.9	832.3	832.9	833.0	833.0	833.0	833.0	836.7	844.2	849.9	849.4
175°	838.0	838.0	838.0	838.0	836.3	834.0	833.0	835.3	840.1	843.7	843.7
177.5°	838.0	838.0	838.0	838.0	836.8	835.0	834.1	836.0	839.8	842.6	842.1
180°	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	848.7	848.7
2.5°	906.0	900.5
5°	1165.3	1170.8
7.5°	1569.2	1566.5
10°	1951.3	1975.8
12.5°	2229.6	2235.1
15°	2398.8	2409.7
17.5°	2464.3	2467.0
20°	2467.0	2461.6
22.5°	2437.0	2431.6
25°	2401.5	2398.8
27.5°	2368.8	2371.5
30°	2355.1	2363.3
32.5°	2355.1	2368.8
35°	2360.6	2374.2
37.5°	2357.9	2374.2
40°	2347.0	2366.1
42.5°	2316.9	2330.6
45°	2270.5	2286.9
47.5°	2210.5	2221.4
50°	2134.1	2145.0
52.5°	2038.6	2041.3
55°	1924.0	1934.9
57.5°	1801.2	1803.9
60°	1664.7	1672.9
62.5°	1520.1	1520.1
65°	1367.3	1372.7
67.5°	1209.0	1222.6
70°	1048.0	1050.7
72.5°	889.6	889.6
75°	725.9	728.6
77.5°	570.3	570.3
80°	423.0	425.7
82.5°	292.0	297.5
85°	182.8	182.8
87.5°	84.6	76.4
90°	21.4	21.4
92.5°	85.6	68.6
95°	298.4	246.9
97.5°	715.0	617.0
100°	1030.2	913.5
102.5°	1340.2	1240.2
105°	1735.5	1681.7
107.5°	1994.4	2007.4
110°	2093.1	2149.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2102.0	2187.9
115°	2046.2	2165.5
117.5°	1928.0	2060.2
120°	1832.8	1961.3
122.5°	1740.0	1866.8
125°	1607.7	1724.5
127.5°	1488.7	1587.2
130°	1418.7	1509.6
132.5°	1355.0	1436.5
135°	1267.9	1338.1
137.5°	1197.9	1255.4
140°	1149.9	1203.6
142.5°	1110.2	1156.4
145°	1050.5	1085.6
147.5°	1004.8	1033.8
150°	975.9	999.5
152.5°	951.4	969.1
155°	923.1	934.8
157.5°	900.6	908.9
160°	887.4	892.1
162.5°	878.5	883.1
165°	866.0	870.7
167.5°	856.9	858.9
170°	854.3	854.3
172.5°	847.7	846.0
175°	843.7	843.7
177.5°	840.0	838.0
180°	838.0	838.0



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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	4.78	5.73	5.69	6.66	7.86	17.98	18.92	18.88	19.86	21.06
	3H	5.50	6.35	6.41	7.29	8.51	19.83	20.68	20.75	21.62	22.84
	4H	5.80	6.61	6.73	7.55	8.78	20.48	21.29	21.41	22.24	23.47
	6H	6.05	6.80	7.00	7.75	9.00	20.92	21.67	21.87	22.62	23.86
	8H	6.12	6.83	7.08	7.80	9.05	21.05	21.76	22.00	22.73	23.97
	12H	6.14	6.82	7.10	7.79	9.05	21.12	21.80	22.08	22.76	24.03
4H	2H	12.02	12.83	12.96	13.77	15.00	18.26	19.07	19.20	20.02	21.25
	3H	13.59	14.27	14.54	15.25	16.49	20.32	21.00	21.27	21.97	23.22
	4H	13.69	14.31	14.65	15.28	16.55	21.09	21.71	22.05	22.68	23.95
	6H	13.71	14.24	14.68	15.24	16.51	21.64	22.18	22.62	23.17	24.44
	8H	13.69	14.19	14.66	15.18	16.46	21.81	22.31	22.78	23.30	24.58
	12H	13.65	14.10	14.64	15.10	16.39	21.91	22.36	22.90	23.37	24.66
8H	4H	15.15	15.65	16.12	16.64	17.92	21.16	21.66	22.14	22.65	23.93
	6H	15.39	15.81	16.39	16.84	18.12	21.80	22.21	22.80	23.24	24.53
	8H	15.41	15.78	16.42	16.80	18.10	22.02	22.39	23.03	23.41	24.71
	12H	15.39	15.71	16.40	16.72	18.07	22.18	22.50	23.19	23.51	24.86
12H	4H	15.30	15.75	16.29	16.75	18.04	21.12	21.57	22.11	22.58	23.87
	6H	15.65	16.02	16.66	17.04	18.34	21.78	22.15	22.79	23.17	24.47
	8H	15.73	16.05	16.74	17.06	18.41	22.02	22.34	23.03	23.36	24.70