

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: P936773

Luminaire Tested: SQ4-FB-050U-075D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

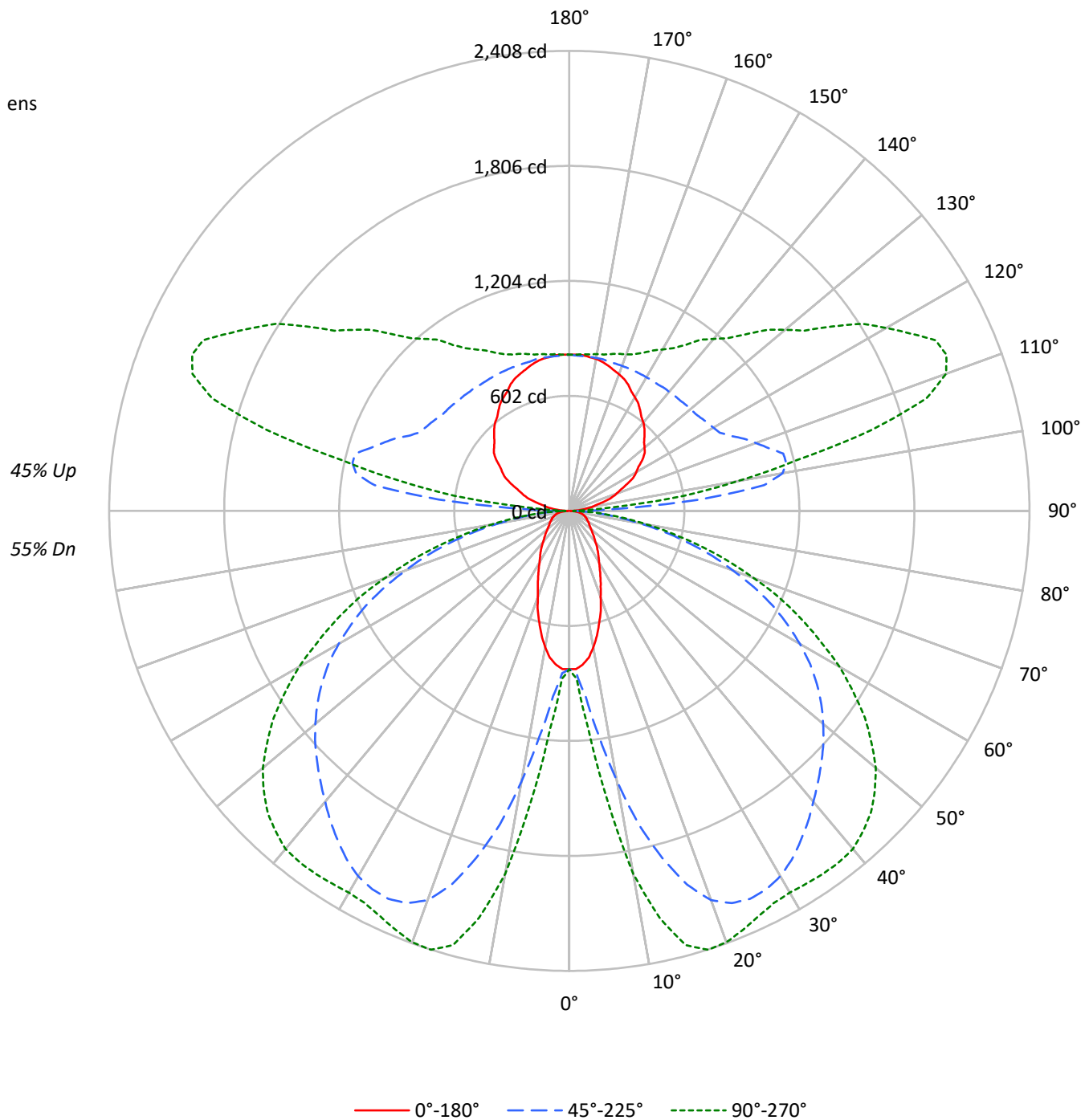
Test Method: LM-79-2019  
Report Number: P936773  
REPORT IS A COMBINATION OF REPORTS P933462 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-940-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11716.2 lumens  
Efficiency: N/A  
Efficacy: 107.3 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 (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	
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	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°	2563	2563	2563
5°	2504	2963	3445
10°	2272	4320	5711
15°	1932	5645	6896
20°	1574	6543	7028
25°	1313	6849	6885
30°	1108	6894	6872
35°	980	6781	7050
40°	854	6634	7233
45°	774	6528	7262
50°	711	6432	7141
55°	682	6290	6825
60°	699	6017	6325
65°	728	5600	5638
70°	777	4887	4763
75°	865	3988	3717
80°	951	2769	2505
85°	862	1471	1282

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7262 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	0.9
10°-20°	475.0	4.1
20°-30°	830.9	7.1
30°-40°	1069.5	9.1
40°-50°	1194.7	10.2
50°-60°	1144.2	9.8
60°-70°	906.8	7.7
70°-80°	533.2	4.6
80°-90°	151.3	1.3
90°-100°	398.8	3.4
100°-110°	1048.4	8.9
110°-120°	1087.1	9.3
120°-130°	872.0	7.4
130°-140°	684.2	5.8
140°-150°	525.2	4.5
150°-160°	378.2	3.2
160°-170°	231.4	2.0
170°-180°	78.2	0.7
0°-30°	1413.0	12.1
0°-40°	2482.6	21.2
0°-60°	4821.4	41.2
0°-90°	6412.7	54.7
90°-120°	2534.3	21.6
90°-150°	4615.7	39.4
90°-180°	5304.0	45.3
0°-180°	11716.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	807	866	975	1103	1143	75
15°	605	1116	1881	2280	2352	168
25°	386	1266	2240	2339	2342	178
35°	261	1210	2110	2230	2318	163
45°	178	964	1865	2137	2232	138
55°	128	613	1582	1838	1889	117
65°	101	325	1175	1321	1340	100
75°	75	200	645	709	711	78
85°	27	61	160	176	178	28
90°	6	15	42	21	21	6
95°	53	206	687	354	241	59
105°	189	286	1159	1760	1642	200
115°	336	407	928	1852	2114	331
125°	467	523	844	1427	1684	414
135°	556	612	818	1152	1306	430
145°	645	686	808	983	1060	404
155°	729	750	808	887	913	335
165°	787	797	808	840	850	222
175°	818	818	813	824	824	78
180°	818	818	818	818	818	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5
2.5°	828.5	828.5	833.8	836.5	841.8	844.5	849.8	855.1	871.1	873.8	879.1
5°	807.2	817.8	852.5	865.8	903.1	953.7	975.0	1009.7	1081.7	1103.0	1116.3
7.5°	775.2	799.2	884.4	905.8	999.0	1132.3	1188.2	1262.8	1377.4	1433.3	1478.6
10°	724.6	775.2	927.1	977.7	1129.6	1332.1	1436.0	1539.9	1713.0	1790.3	1819.6
12.5°	668.7	751.2	972.4	1041.7	1260.2	1555.9	1681.1	1795.6	1992.8	2096.7	2112.6
15°	604.7	716.6	1015.1	1116.3	1398.7	1742.3	1880.9	2022.1	2205.9	2280.5	2299.1
17.5°	548.8	690.0	1055.0	1161.6	1505.2	1910.2	2051.4	2168.6	2317.8	2368.4	2381.7
20°	479.5	647.4	1081.7	1220.2	1617.1	2032.7	2168.6	2259.2	2360.4	2392.4	2397.7
22.5°	428.9	602.1	1097.7	1241.5	1691.7	2107.3	2221.9	2293.8	2363.1	2373.7	2376.4
25°	386.3	551.4	1095.0	1265.5	1755.7	2152.6	2240.5	2293.8	2333.8	2339.1	2339.1
27.5°	346.3	495.5	1084.3	1270.8	1803.6	2163.3	2232.5	2269.8	2288.5	2299.1	2299.1
30°	311.7	442.2	1057.7	1260.2	1824.9	2152.6	2208.5	2227.2	2245.8	2261.8	2269.8
32.5°	285.0	391.6	1017.7	1238.8	1827.6	2126.0	2165.9	2176.6	2203.2	2240.5	2253.8
35°	261.1	341.0	972.4	1209.5	1811.6	2083.3	2110.0	2120.6	2173.9	2229.9	2248.5
37.5°	237.1	303.7	913.8	1158.9	1787.6	2032.7	2051.4	2070.0	2152.6	2219.2	2240.5
40°	213.1	271.7	844.5	1103.0	1750.3	1971.4	1987.4	2016.7	2126.0	2203.2	2224.5
42.5°	194.5	245.1	769.9	1044.4	1702.4	1902.2	1926.2	1968.8	2094.0	2176.6	2200.6
45°	178.5	218.4	690.0	964.4	1641.1	1830.3	1864.9	1923.5	2056.7	2136.6	2157.9
47.5°	162.5	199.8	607.4	881.8	1574.5	1758.3	1803.6	1870.2	2006.1	2083.3	2102.0
50°	149.2	181.2	524.8	793.9	1502.6	1681.1	1734.4	1803.6	1942.1	2014.1	2038.0
52.5°	138.5	165.2	447.6	706.0	1420.0	1601.2	1662.4	1734.4	1864.9	1934.2	1950.1
55°	127.9	151.8	381.0	612.7	1334.8	1515.9	1582.5	1651.8	1779.6	1838.2	1848.9
57.5°	122.5	141.2	325.0	524.8	1244.2	1420.0	1494.6	1558.5	1678.4	1723.7	1734.4
60°	114.6	133.2	282.4	450.2	1145.6	1329.4	1393.4	1457.3	1558.5	1595.8	1603.8
62.5°	106.6	127.9	250.4	378.3	1044.4	1222.9	1286.8	1345.4	1430.7	1457.3	1468.0
65°	101.2	122.5	226.4	325.0	940.4	1111.0	1174.9	1225.5	1294.8	1321.4	1326.8
67.5°	95.9	117.2	207.8	279.7	836.5	999.0	1047.0	1095.0	1148.3	1174.9	1177.6
70°	87.9	111.9	191.8	247.8	729.9	871.1	911.1	961.7	1004.3	1017.7	1025.7
72.5°	82.6	103.9	181.2	223.8	620.7	748.6	785.9	815.2	852.5	865.8	865.8
75°	74.6	93.2	170.5	199.8	508.8	612.7	644.7	674.0	703.3	708.6	700.6
77.5°	66.6	82.6	146.5	167.8	396.9	484.8	511.5	527.5	551.4	556.8	559.4
80°	55.9	71.9	114.6	130.5	287.7	357.0	375.6	388.9	410.3	410.3	415.6
82.5°	42.6	55.9	82.6	93.2	194.5	245.1	261.1	269.1	282.4	282.4	282.4
85°	26.6	34.6	53.3	61.3	117.2	149.2	159.8	162.5	173.2	175.8	175.8
87.5°	13.3	18.6	34.6	37.3	61.3	77.3	77.3	82.6	82.6	79.9	77.3
90°	5.5	9.9	14.3	15.4	24.2	35.9	41.7	37.1	27.8	20.9	20.9
92.5°	21.9	59.2	96.6	105.9	148.9	206.3	235.0	205.9	147.9	104.3	100.2
95°	52.7	121.0	189.4	206.5	366.6	580.1	686.9	612.9	465.0	354.1	341.5
97.5°	91.1	151.4	211.7	226.8	493.8	849.8	1027.9	981.2	887.6	817.6	793.7
100°	120.8	175.5	230.1	243.8	540.1	935.2	1132.7	1136.1	1142.9	1148.1	1119.6
102.5°	146.1	197.0	248.0	260.8	561.3	962.1	1162.4	1221.9	1341.0	1430.3	1405.9
105°	188.9	232.0	275.2	286.0	577.0	965.1	1159.1	1292.6	1559.5	1759.7	1746.6
107.5°	232.8	273.1	313.4	323.4	580.0	922.2	1093.2	1279.4	1651.9	1931.1	1934.3
110°	262.5	298.8	335.2	344.3	575.6	884.1	1038.3	1246.5	1662.8	1975.0	1988.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	291.5	326.2	360.8	369.5	575.8	850.8	988.3	1201.4	1627.4	1947.0	1968.0
115°	335.5	367.5	399.4	407.4	581.1	812.7	928.5	1133.7	1544.1	1852.0	1881.1
117.5°	378.8	407.9	436.9	444.2	591.9	788.8	887.3	1072.5	1442.9	1720.8	1753.0
120°	404.1	431.5	458.7	465.6	600.6	780.8	870.9	1040.1	1378.5	1632.4	1663.8
122.5°	428.8	456.4	484.0	490.9	613.3	776.6	858.2	1010.5	1315.4	1544.0	1574.9
125°	466.7	491.9	517.0	523.3	630.4	773.1	844.5	974.0	1232.8	1427.0	1455.5
127.5°	497.5	522.9	548.3	554.6	647.4	771.1	832.9	944.1	1166.4	1333.2	1357.2
130°	514.0	541.3	568.6	575.4	659.8	772.3	828.6	927.5	1125.5	1273.8	1296.0
132.5°	530.9	558.3	585.6	592.5	669.9	773.1	824.7	913.3	1090.5	1223.3	1243.2
135°	556.2	581.1	606.0	612.2	680.8	772.4	818.1	892.4	1040.7	1152.0	1169.1
137.5°	582.0	606.7	631.4	637.5	697.3	777.2	817.0	879.7	1005.2	1099.3	1113.3
140°	603.4	626.1	648.8	654.5	707.4	777.9	813.1	867.3	975.7	1057.0	1070.1
142.5°	619.9	640.9	661.9	667.2	715.8	780.7	813.1	860.7	955.9	1027.3	1038.6
145°	645.1	663.4	681.7	686.3	726.8	780.7	807.7	846.6	924.5	982.8	991.4
147.5°	670.4	688.2	706.0	710.5	742.9	786.1	807.7	838.4	899.6	945.5	952.6
150°	686.9	702.9	719.1	723.1	751.3	788.9	807.7	833.6	885.2	924.1	929.8
152.5°	703.9	716.1	728.3	731.4	756.8	790.8	807.7	829.8	874.0	907.1	911.4
155°	729.1	738.2	747.3	749.5	768.9	794.8	807.7	825.3	860.4	886.8	889.6
157.5°	747.9	756.7	765.4	767.6	781.0	798.8	807.7	821.4	848.7	869.2	871.2
160°	760.5	767.3	774.2	775.8	786.5	800.6	807.7	819.4	842.8	860.4	861.5
162.5°	773.1	778.2	783.4	784.6	792.4	802.6	807.7	817.6	837.3	852.1	853.2
165°	786.9	791.5	796.1	797.2	800.7	805.4	807.7	814.8	828.9	839.5	840.7
167.5°	799.5	801.6	803.8	804.4	807.3	811.2	813.1	817.8	827.1	834.0	834.5
170°	807.7	809.9	812.1	812.6	812.8	813.1	813.1	817.8	827.1	834.0	834.0
172.5°	812.1	812.5	813.1	813.1	813.1	813.1	813.1	816.8	824.2	829.7	829.2
175°	818.1	818.1	818.1	818.1	816.4	814.2	813.1	815.5	820.2	823.6	823.6
177.5°	818.1	818.1	818.1	818.1	816.9	815.2	814.3	816.2	819.8	822.6	822.0
180°	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	828.5	828.5
2.5°	884.4	879.1
5°	1137.6	1142.9
7.5°	1531.9	1529.2
10°	1904.8	1928.8
12.5°	2176.6	2181.9
15°	2341.7	2352.4
17.5°	2405.7	2408.3
20°	2408.3	2403.0
22.5°	2379.0	2373.7
25°	2344.4	2341.7
27.5°	2312.4	2315.1
30°	2299.1	2307.1
32.5°	2299.1	2312.4
35°	2304.4	2317.8
37.5°	2301.8	2317.8
40°	2291.1	2309.8
42.5°	2261.8	2275.1
45°	2216.5	2232.5
47.5°	2157.9	2168.6
50°	2083.3	2094.0
52.5°	1990.1	1992.8
55°	1878.2	1888.9
57.5°	1758.3	1761.0
60°	1625.1	1633.1
62.5°	1483.9	1483.9
65°	1334.8	1340.1
67.5°	1180.2	1193.6
70°	1023.1	1025.7
72.5°	868.5	868.5
75°	708.6	711.3
77.5°	556.8	556.8
80°	412.9	415.6
82.5°	285.0	290.4
85°	178.5	178.5
87.5°	82.6	74.6
90°	20.9	20.9
92.5°	83.6	67.0
95°	291.3	241.0
97.5°	698.0	602.3
100°	1005.7	891.7
102.5°	1308.3	1210.7
105°	1694.2	1641.7
107.5°	1946.9	1959.6
110°	2043.3	2098.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2052.0	2135.9
115°	1997.6	2114.0
117.5°	1882.1	2011.2
120°	1789.2	1914.6
122.5°	1698.7	1822.4
125°	1569.5	1683.5
127.5°	1453.3	1549.5
130°	1384.9	1473.7
132.5°	1322.8	1402.3
135°	1237.7	1306.2
137.5°	1169.4	1225.5
140°	1122.5	1175.0
142.5°	1083.8	1128.9
145°	1025.6	1059.7
147.5°	980.9	1009.2
150°	952.7	975.7
152.5°	928.8	946.1
155°	901.1	912.6
157.5°	879.2	887.3
160°	866.2	870.9
162.5°	857.6	862.1
165°	845.4	850.0
167.5°	836.5	838.4
170°	834.0	834.0
172.5°	827.5	825.8
175°	823.6	823.6
177.5°	820.1	818.1
180°	818.1	818.1



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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	4.70	5.65	5.61	6.58	7.78	17.89	18.84	18.80	19.77	20.97
	3H	5.41	6.27	6.33	7.21	8.43	19.74	20.60	20.66	21.54	22.76
	4H	5.71	6.52	6.65	7.47	8.70	20.40	21.20	21.33	22.15	23.38
	6H	5.97	6.71	6.91	7.67	8.91	20.84	21.58	21.78	22.53	23.78
	8H	6.04	6.75	6.99	7.72	8.96	20.96	21.67	21.91	22.64	23.89
	12H	6.06	6.74	7.02	7.70	8.97	21.04	21.71	21.99	22.68	23.95
4H	2H	11.93	12.74	12.87	13.69	14.92	18.18	18.99	19.12	19.93	21.16
	3H	13.51	14.19	14.46	15.16	16.41	20.24	20.91	21.19	21.89	23.14
	4H	13.61	14.23	14.57	15.20	16.47	21.01	21.63	21.97	22.60	23.87
	6H	13.62	14.16	14.60	15.15	16.42	21.56	22.09	22.53	23.09	24.36
	8H	13.60	14.10	14.58	15.09	16.38	21.73	22.23	22.70	23.21	24.50
	12H	13.56	14.02	14.56	15.02	16.31	21.83	22.28	22.82	23.28	24.57
8H	4H	15.06	15.56	16.04	16.55	17.84	21.08	21.58	22.05	22.57	23.85
	6H	15.31	15.73	16.31	16.75	18.04	21.72	22.13	22.72	23.16	24.44
	8H	15.33	15.70	16.34	16.71	18.01	21.94	22.31	22.95	23.32	24.62
	12H	15.30	15.62	16.32	16.64	17.98	22.09	22.41	23.11	23.43	24.77
12H	4H	15.21	15.67	16.21	16.67	17.96	21.03	21.49	22.03	22.49	23.78
	6H	15.57	15.94	16.58	16.96	18.26	21.70	22.07	22.71	23.08	24.39
	8H	15.64	15.97	16.66	16.98	18.33	21.94	22.26	22.95	23.27	24.62