

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: P937587

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937587
REPORT IS A COMBINATION OF REPORTS P933574 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

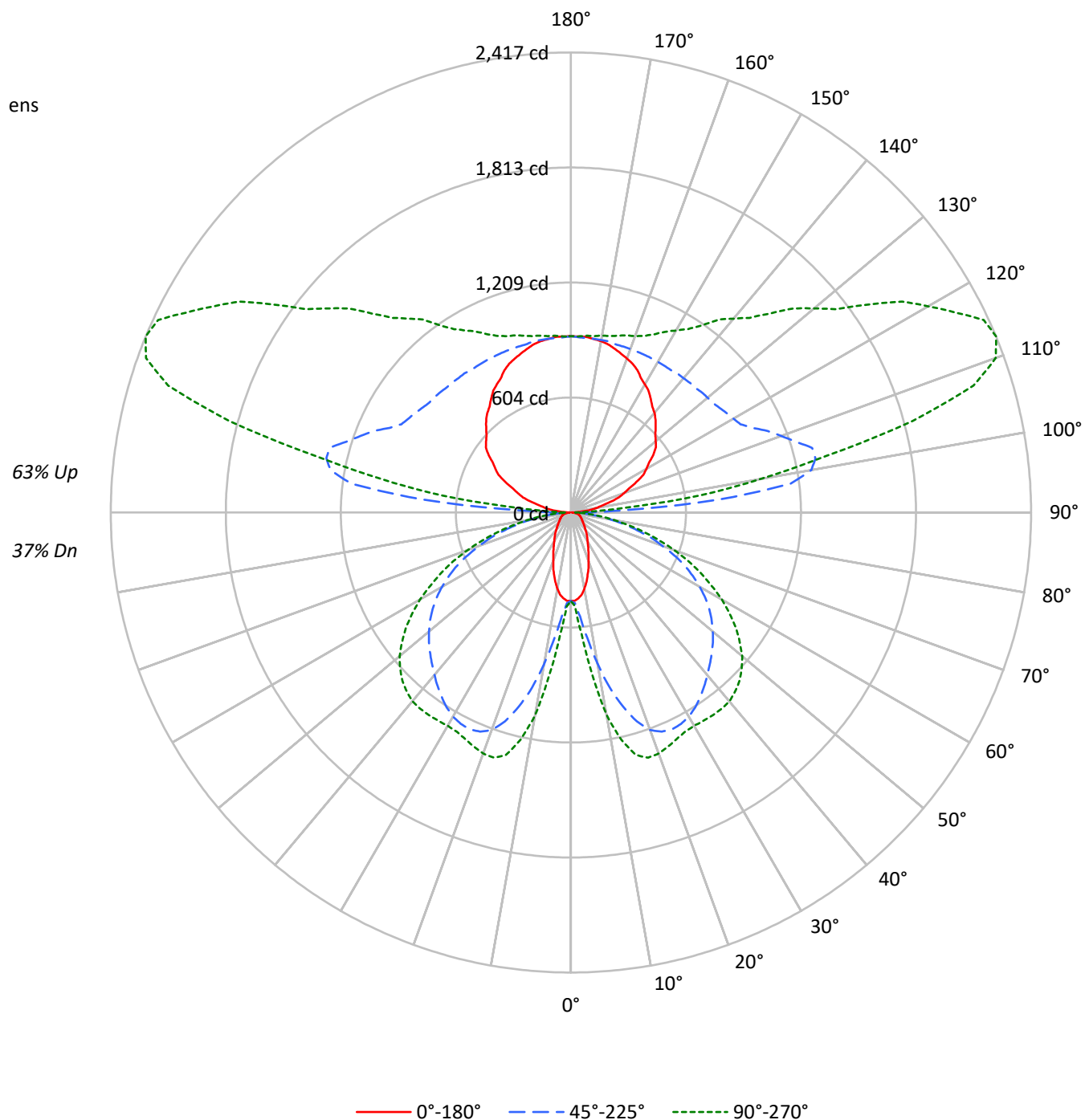
Lumens per Lamp: N/A
Luminaire Lumens: 9600.4 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 73.8
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: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2874	2874	2874
5°	2807	3321	3863
10°	2545	4840	6405
15°	2162	6322	7735
20°	1760	7325	7883
25°	1467	7664	7722
30°	1237	7710	7708
35°	1093	7580	7907
40°	952	7411	8113
45°	861	7287	8145
50°	790	7175	8010
55°	755	7011	7654
60°	772	6701	7094
65°	803	6230	6324
70°	853	5428	5342
75°	941	4422	4169
80°	1022	3064	2810
85°	888	1622	1438

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8145 cd/sqm

TEST NUMBER: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	0.6
10°-20°	266.4	2.8
20°-30°	466.0	4.9
30°-40°	599.8	6.2
40°-50°	670.0	7.0
50°-60°	641.7	6.7
60°-70°	508.5	5.3
70°-80°	299.0	3.1
80°-90°	86.6	0.9
90°-100°	451.3	4.7
100°-110°	1186.6	12.4
110°-120°	1230.4	12.8
120°-130°	986.9	10.3
130°-140°	774.4	8.1
140°-150°	594.4	6.2
150°-160°	428.0	4.5
160°-170°	261.9	2.7
170°-180°	88.5	0.9
0°-30°	792.4	8.3
0°-40°	1392.3	14.5
0°-60°	2703.9	28.2
0°-90°	3598.0	37.5
90°-120°	2868.3	29.9
90°-150°	5223.9	54.4
90°-180°	6002.0	62.5
0°-180°	9600.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	465	465	465	465	465	
5°	453	486	547	618	641	42
15°	339	626	1055	1279	1319	94
25°	217	710	1257	1312	1313	100
35°	146	678	1183	1251	1300	91
45°	100	541	1046	1198	1252	77
55°	72	344	887	1031	1059	65
65°	57	182	659	741	752	56
75°	42	112	362	397	399	44
85°	15	34	90	99	100	16
90°	6	17	47	24	24	6
95°	60	234	777	401	273	66
105°	214	324	1312	1992	1858	227
115°	380	461	1051	2096	2392	375
125°	528	592	956	1615	1905	469
135°	630	693	926	1304	1478	487
145°	730	777	914	1112	1199	457
155°	825	848	914	1004	1033	379
165°	890	902	914	950	962	251
175°	926	926	920	932	932	88
180°	926	926	926	926	926	

TEST NUMBER: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6
2.5°	464.6	464.6	467.6	469.1	472.1	473.6	476.6	479.6	488.5	490.0	493.0
5°	452.7	458.7	478.1	485.6	506.5	534.9	546.8	566.2	606.6	618.5	626.0
7.5°	434.8	448.2	496.0	508.0	560.2	635.0	666.3	708.2	772.4	803.8	829.2
10°	406.4	434.8	519.9	548.3	633.5	747.0	805.3	863.5	960.6	1004.0	1020.4
12.5°	375.0	421.3	545.3	584.2	706.7	872.5	942.7	1007.0	1117.5	1175.9	1184.8
15°	339.1	401.9	569.2	626.0	784.4	977.1	1054.8	1134.0	1237.1	1279.0	1289.4
17.5°	307.8	386.9	591.6	651.4	844.1	1071.2	1150.5	1216.2	1299.9	1328.3	1335.7
20°	268.9	363.0	606.6	684.3	906.9	1140.0	1216.2	1267.0	1323.8	1341.7	1344.7
22.5°	240.5	337.6	615.5	696.2	948.7	1181.9	1246.1	1286.4	1325.3	1331.3	1332.7
25°	216.6	309.3	614.0	709.6	984.5	1207.3	1256.6	1286.4	1308.8	1311.8	1311.8
27.5°	194.2	277.9	608.1	712.6	1011.4	1213.2	1252.1	1273.0	1283.4	1289.4	1289.4
30°	174.8	248.0	593.1	706.7	1023.4	1207.3	1238.6	1249.1	1259.5	1268.5	1273.0
32.5°	159.9	219.6	570.7	694.7	1024.9	1192.3	1214.7	1220.7	1235.6	1256.6	1264.0
35°	146.4	191.2	545.3	678.3	1015.9	1168.4	1183.3	1189.3	1219.2	1250.6	1261.0
37.5°	133.0	170.3	512.4	649.9	1002.5	1140.0	1150.5	1160.9	1207.3	1244.6	1256.6
40°	119.5	152.4	473.6	618.5	981.6	1105.6	1114.5	1131.0	1192.3	1235.6	1247.6
42.5°	109.1	137.4	431.8	585.6	954.7	1066.7	1080.2	1104.1	1174.4	1220.7	1234.1
45°	100.1	122.5	386.9	540.8	920.3	1026.4	1045.8	1078.7	1153.5	1198.3	1210.2
47.5°	91.1	112.0	340.6	494.5	883.0	986.0	1011.4	1048.8	1125.0	1168.4	1178.9
50°	83.7	101.6	294.3	445.2	842.6	942.7	972.6	1011.4	1089.1	1129.5	1143.0
52.5°	77.7	92.6	251.0	395.9	796.3	897.9	932.3	972.6	1045.8	1084.6	1093.6
55°	71.7	85.2	213.6	343.6	748.5	850.1	887.4	926.3	998.0	1030.9	1036.8
57.5°	68.7	79.2	182.3	294.3	697.7	796.3	838.1	874.0	941.2	966.6	972.6
60°	64.2	74.7	158.4	252.5	642.4	745.5	781.4	817.2	874.0	894.9	899.4
62.5°	59.8	71.7	140.4	212.1	585.6	685.7	721.6	754.5	802.3	817.2	823.2
65°	56.8	68.7	127.0	182.3	527.4	623.0	658.9	687.2	726.1	741.0	744.0
67.5°	53.8	65.7	116.5	156.9	469.1	560.2	587.1	614.0	643.9	658.9	660.3
70°	49.3	62.7	107.6	138.9	409.4	488.5	510.9	539.3	563.2	570.7	575.2
72.5°	46.3	58.3	101.6	125.5	348.1	419.8	440.7	457.2	478.1	485.6	485.6
75°	41.8	52.3	95.6	112.0	285.4	343.6	361.5	378.0	394.4	397.4	392.9
77.5°	37.4	46.3	82.2	94.1	222.6	271.9	286.8	295.8	309.3	312.2	313.7
80°	31.4	40.3	64.2	73.2	161.4	200.2	210.7	218.1	230.1	230.1	233.1
82.5°	23.9	31.4	46.3	52.3	109.1	137.4	146.4	150.9	158.4	158.4	158.4
85°	14.9	19.4	29.9	34.4	65.7	83.7	89.6	91.1	97.1	98.6	98.6
87.5°	7.5	10.5	19.4	20.9	34.4	43.3	43.3	46.3	46.3	44.8	43.3
90°	6.2	11.2	16.1	17.4	27.4	40.6	47.2	41.9	31.5	23.6	23.6
92.5°	24.9	67.1	109.4	119.9	168.6	233.5	265.9	233.1	167.3	118.0	113.3
95°	59.7	137.0	214.3	233.7	414.9	656.6	777.4	693.7	526.3	400.8	386.5
97.5°	103.2	171.4	239.6	256.7	558.9	961.8	1163.3	1110.4	1004.7	925.3	898.2
100°	136.8	198.6	260.5	275.9	611.2	1058.3	1282.0	1285.8	1293.6	1299.4	1267.1
102.5°	165.3	223.1	280.8	295.2	635.3	1088.8	1315.5	1382.9	1517.7	1618.8	1591.2
105°	213.7	262.6	311.5	323.8	653.2	1092.3	1311.8	1462.9	1765.0	1991.6	1976.8
107.5°	263.4	309.1	354.7	366.0	656.5	1043.6	1237.2	1448.0	1869.4	2185.5	2189.1
110°	297.0	338.1	379.4	389.6	651.5	1000.6	1175.1	1410.6	1881.8	2235.2	2250.7

TEST NUMBER: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	330.0	369.2	408.5	418.2	651.7	962.9	1118.5	1359.6	1841.9	2203.6	2227.3
115°	379.7	415.8	452.0	461.0	657.7	919.7	1050.8	1283.0	1747.7	2096.1	2129.0
117.5°	428.8	461.6	494.5	502.7	669.8	892.7	1004.2	1213.8	1633.0	1947.5	1984.0
120°	457.4	488.3	519.2	527.0	679.9	883.7	985.5	1177.1	1560.1	1847.5	1882.9
122.5°	485.4	516.5	547.8	555.6	694.1	878.9	971.3	1143.8	1488.7	1747.4	1782.4
125°	528.2	556.7	585.2	592.2	713.4	875.0	955.8	1102.3	1395.3	1615.1	1647.4
127.5°	563.0	591.7	620.5	627.7	732.7	872.7	942.7	1068.5	1320.1	1508.8	1536.0
130°	581.7	612.6	643.5	651.3	746.8	874.1	937.7	1049.7	1273.7	1441.7	1466.8
132.5°	600.9	631.9	662.7	670.5	758.2	875.0	933.4	1033.6	1234.1	1384.5	1407.0
135°	629.5	657.7	685.8	692.9	770.6	874.1	925.9	1009.8	1177.8	1303.8	1323.2
137.5°	658.7	686.5	714.5	721.5	789.2	879.6	924.7	995.7	1137.6	1244.1	1259.9
140°	683.0	708.7	734.4	740.7	800.6	880.4	920.3	981.7	1104.3	1196.2	1211.0
142.5°	701.6	725.4	749.1	755.1	810.1	883.6	920.3	974.2	1081.9	1162.6	1175.4
145°	730.2	750.9	771.6	776.8	822.6	883.7	914.1	958.2	1046.3	1112.3	1122.0
147.5°	758.8	778.9	799.0	804.1	840.7	889.6	914.1	948.8	1018.1	1070.1	1078.1
150°	777.4	795.6	813.8	818.4	850.3	892.8	914.1	943.4	1001.9	1045.8	1052.3
152.5°	796.7	810.5	824.3	827.8	856.6	894.9	914.1	939.1	989.1	1026.6	1031.5
155°	825.3	835.4	845.6	848.2	870.2	899.5	914.1	934.0	973.8	1003.6	1006.9
157.5°	846.4	856.4	866.2	868.7	883.9	904.1	914.1	929.6	960.5	983.7	986.0
160°	860.6	868.4	876.2	878.1	890.1	906.2	914.1	927.4	953.9	973.8	975.1
162.5°	875.0	880.8	886.5	888.0	896.7	908.4	914.1	925.3	947.7	964.4	965.6
165°	890.5	895.7	901.0	902.3	906.3	911.5	914.1	922.1	938.1	950.2	951.5
167.5°	904.8	907.3	909.7	910.3	913.6	918.1	920.3	925.6	936.0	943.9	944.5
170°	914.1	916.6	919.1	919.7	919.9	920.2	920.3	925.6	936.0	943.9	943.9
172.5°	919.1	919.6	920.2	920.3	920.3	920.3	920.3	924.5	932.8	938.9	938.4
175°	925.9	925.9	925.9	925.9	924.0	921.5	920.3	922.9	928.2	932.2	932.2
177.5°	925.9	925.9	925.9	925.9	924.5	922.6	921.6	923.7	927.8	930.9	930.3
180°	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9

TEST NUMBER: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	464.6	464.6
2.5°	496.0	493.0
5°	637.9	640.9
7.5°	859.0	857.6
10°	1068.2	1081.7
12.5°	1220.7	1223.7
15°	1313.3	1319.3
17.5°	1349.2	1350.7
20°	1350.7	1347.7
22.5°	1334.2	1331.3
25°	1314.8	1313.3
27.5°	1296.9	1298.4
30°	1289.4	1293.9
32.5°	1289.4	1296.9
35°	1292.4	1299.9
37.5°	1290.9	1299.9
40°	1284.9	1295.4
42.5°	1268.5	1276.0
45°	1243.1	1252.1
47.5°	1210.2	1216.2
50°	1168.4	1174.4
52.5°	1116.0	1117.5
55°	1053.3	1059.2
57.5°	986.0	987.5
60°	911.3	915.8
62.5°	832.2	832.2
65°	748.5	751.5
67.5°	661.8	669.3
70°	573.7	575.2
72.5°	487.0	487.0
75°	397.4	398.9
77.5°	312.2	312.2
80°	231.6	233.1
82.5°	159.9	162.8
85°	100.1	100.1
87.5°	46.3	41.8
90°	23.6	23.6
92.5°	94.5	75.8
95°	329.7	272.8
97.5°	789.9	681.7
100°	1138.1	1009.1
102.5°	1480.7	1370.2
105°	1917.4	1858.0
107.5°	2203.6	2217.9
110°	2312.6	2374.5

TEST NUMBER: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2322.3	2417.3
115°	2260.7	2392.5
117.5°	2130.1	2276.3
120°	2025.0	2166.9
122.5°	1922.5	2062.5
125°	1776.3	1905.2
127.5°	1644.9	1753.7
130°	1567.4	1667.9
132.5°	1497.1	1587.1
135°	1400.8	1478.4
137.5°	1323.5	1387.0
140°	1270.5	1329.9
142.5°	1226.6	1277.7
145°	1160.7	1199.4
147.5°	1110.1	1142.2
150°	1078.3	1104.3
152.5°	1051.1	1070.7
155°	1019.8	1032.8
157.5°	995.1	1004.2
160°	980.4	985.5
162.5°	970.6	975.6
165°	956.8	961.9
167.5°	946.7	948.9
170°	943.9	943.9
172.5°	936.5	934.6
175°	932.2	932.2
177.5°	928.1	925.9
180°	925.9	925.9

TEST NUMBER: P937587

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-6-2700K

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	3.40	4.19	4.45	5.25	6.68	16.57	17.35	17.62	18.41	19.85
	3H	4.10	4.81	5.16	5.87	7.33	18.39	19.10	19.45	20.17	21.62
	4H	4.40	5.07	5.47	6.14	7.60	19.03	19.70	20.10	20.77	22.23
	6H	4.64	5.26	5.72	6.33	7.81	19.46	20.07	20.54	21.15	22.62
	8H	4.71	5.30	5.79	6.39	7.85	19.57	20.16	20.66	21.25	22.72
	12H	4.72	5.28	5.81	6.37	7.86	19.63	20.19	20.73	21.28	22.77
4H	2H	10.60	11.27	11.68	12.34	13.80	16.83	17.50	17.91	18.57	20.03
	3H	12.16	12.72	13.25	13.82	15.29	18.87	19.43	19.95	20.52	22.00
	4H	12.25	12.77	13.34	13.85	15.35	19.63	20.14	20.72	21.23	22.72
	6H	12.26	12.70	13.36	13.81	15.30	20.16	20.60	21.26	21.71	23.20
	8H	12.23	12.65	13.33	13.75	15.26	20.31	20.73	21.41	21.83	23.34
	12H	12.19	12.56	13.30	13.68	15.19	20.40	20.77	21.52	21.89	23.40
8H	4H	13.69	14.10	14.79	15.20	16.71	19.68	20.09	20.78	21.20	22.70
	6H	13.92	14.27	15.05	15.41	16.91	20.30	20.64	21.42	21.79	23.29
	8H	13.94	14.24	15.07	15.37	16.89	20.52	20.82	21.65	21.94	23.46
	12H	13.91	14.17	15.04	15.29	16.85	20.65	20.92	21.79	22.04	23.60
12H	4H	13.82	14.20	14.94	15.32	16.83	19.63	20.00	20.75	21.12	22.63
	6H	14.18	14.48	15.31	15.61	17.13	20.28	20.58	21.41	21.71	23.23
	8H	14.25	14.51	15.38	15.63	17.19	20.51	20.77	21.64	21.89	23.45