

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: P937638

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

**Test Information**

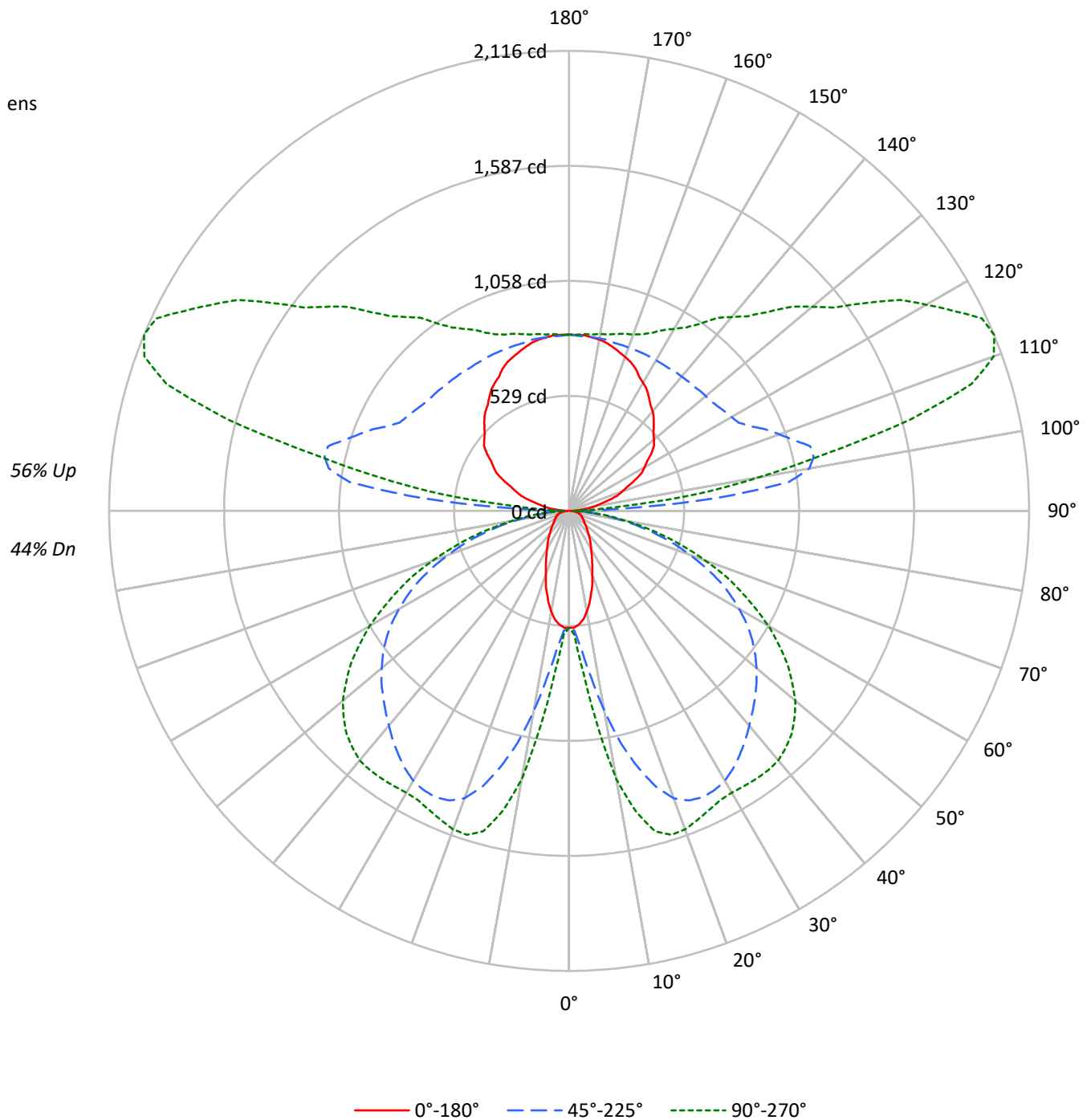
Test Method: LM-79-2019  
Report Number: P937638  
REPORT IS A COMBINATION OF REPORTS P933575 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9416.2 lumens  
Efficiency: N/A  
Efficacy: 108.2 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: General Diffuse  
  
Input Watts (W): 87  
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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CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-3000K

### 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

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

	0°	45°	90°
0°	3324	3324	3324
5°	3247	3842	4469
10°	2944	5599	7409
15°	2501	7313	8946
20°	2036	8473	9118
25°	1697	8864	8933
30°	1431	8918	8915
35°	1264	8767	9147
40°	1101	8572	9384
45°	996	8429	9421
50°	913	8300	9266
55°	873	8111	8855
60°	893	7751	8205
65°	929	7206	7314
70°	986	6281	6180
75°	1089	5116	4822
80°	1181	3543	3250
85°	1031	1877	1663

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9421 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.5	0.7
10°-20°	308.1	3.3
20°-30°	539.0	5.7
30°-40°	693.8	7.4
40°-50°	775.0	8.2
50°-60°	742.2	7.9
60°-70°	588.2	6.2
70°-80°	345.9	3.7
80°-90°	99.2	1.1
90°-100°	395.2	4.2
100°-110°	1038.9	11.0
110°-120°	1077.2	11.4
120°-130°	864.1	9.2
130°-140°	678.0	7.2
140°-150°	520.4	5.5
150°-160°	374.8	4.0
160°-170°	229.3	2.4
170°-180°	77.5	0.8
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0°-30°	916.6	9.7
0°-40°	1610.4	17.1
0°-60°	3127.6	33.2
0°-90°	4160.9	44.2
90°-120°	2511.3	26.7
90°-150°	4573.8	48.6
90°-180°	5255.0	55.8
0°-180°	9416.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	524	562	632	716	741	48
15°	392	724	1220	1479	1526	109
25°	251	821	1453	1517	1519	115
35°	169	785	1369	1446	1504	106
45°	116	626	1210	1386	1448	90
55°	83	398	1027	1192	1225	76
65°	66	211	762	857	869	65
75°	48	130	418	460	461	51
85°	17	40	104	114	116	18
90°	5	15	41	21	21	6
95°	52	205	681	351	239	58
105°	187	284	1149	1744	1627	198
115°	332	404	920	1835	2095	328
125°	462	518	837	1414	1668	411
135°	551	607	811	1142	1294	426
145°	639	680	800	974	1050	401
155°	723	743	800	879	904	332
165°	780	790	800	832	842	220
175°	811	811	806	816	816	77
180°	811	811	811	811	811	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4
2.5°	537.4	537.4	540.9	542.7	546.1	547.8	551.3	554.8	565.1	566.8	570.3
5°	523.7	530.5	553.0	561.7	585.8	618.7	632.5	655.0	701.6	715.5	724.1
7.5°	502.9	518.4	573.8	587.6	648.1	734.5	770.8	819.2	893.5	929.8	959.2
10°	470.0	502.9	601.4	634.2	732.8	864.1	931.5	998.9	1111.2	1161.4	1180.4
12.5°	433.7	487.4	630.8	675.7	817.4	1009.3	1090.5	1164.8	1292.7	1360.1	1370.5
15°	392.3	464.9	658.5	724.1	907.3	1130.2	1220.1	1311.7	1430.9	1479.3	1491.4
17.5°	356.1	447.6	684.4	753.5	976.4	1239.2	1330.7	1406.8	1503.6	1536.3	1545.0
20°	311.1	420.0	701.6	791.5	1049.1	1318.6	1406.8	1465.5	1531.2	1552.0	1555.4
22.5°	278.3	390.6	712.0	805.3	1097.4	1367.0	1441.3	1488.0	1532.9	1539.8	1541.6
25°	250.6	357.7	710.3	820.9	1138.9	1396.4	1453.4	1488.0	1513.9	1517.3	1517.3
27.5°	224.6	321.4	703.4	824.3	1170.0	1403.3	1448.2	1472.4	1484.6	1491.4	1491.4
30°	202.2	286.9	686.1	817.4	1183.8	1396.4	1432.7	1444.8	1456.9	1467.2	1472.4
32.5°	185.0	254.0	660.1	803.6	1185.5	1379.1	1405.0	1411.9	1429.2	1453.4	1462.1
35°	169.3	221.2	630.8	784.6	1175.2	1351.5	1368.7	1375.6	1410.2	1446.5	1458.6
37.5°	153.8	197.0	592.8	751.8	1159.6	1318.6	1330.7	1342.8	1396.4	1439.6	1453.4
40°	138.2	176.2	547.8	715.5	1135.4	1278.8	1289.2	1308.2	1379.1	1429.2	1443.0
42.5°	126.2	159.0	499.4	677.5	1104.3	1233.9	1249.5	1277.1	1358.4	1411.9	1427.5
45°	115.8	141.7	447.6	625.6	1064.6	1187.3	1209.8	1247.8	1334.1	1386.0	1399.9
47.5°	105.4	129.6	394.1	572.1	1021.3	1140.6	1170.0	1213.2	1301.3	1351.5	1363.5
50°	96.8	117.6	340.4	515.0	974.7	1090.5	1125.1	1170.0	1259.8	1306.5	1322.1
52.5°	89.9	107.2	290.3	458.0	921.1	1038.7	1078.4	1125.1	1209.8	1254.7	1265.1
55°	82.9	98.5	247.1	397.5	865.8	983.3	1026.6	1071.5	1154.4	1192.4	1199.4
57.5°	79.5	91.6	210.9	340.4	807.1	921.1	969.5	1011.0	1088.7	1118.1	1125.1
60°	74.3	86.4	183.2	292.0	743.1	862.4	903.9	945.3	1011.0	1035.2	1040.3
62.5°	69.2	82.9	162.5	245.4	677.5	793.2	834.7	872.7	928.0	945.3	952.3
65°	65.7	79.5	146.9	210.9	610.1	720.6	762.2	794.9	839.9	857.2	860.6
67.5°	62.2	76.0	134.8	181.5	542.7	648.1	679.1	710.3	744.9	762.2	763.9
70°	57.0	72.6	124.4	160.7	473.5	565.1	591.1	623.9	651.5	660.1	665.4
72.5°	53.5	67.4	117.6	145.2	402.7	485.6	509.8	528.8	553.0	561.7	561.7
75°	48.4	60.5	110.6	129.6	330.1	397.5	418.2	437.2	456.2	459.7	454.5
77.5°	43.2	53.5	95.1	108.9	257.5	314.5	331.8	342.2	357.7	361.2	362.9
80°	36.3	46.7	74.3	84.7	186.6	231.6	243.6	252.3	266.1	266.1	269.6
82.5°	27.6	36.3	53.5	60.5	126.2	159.0	169.3	174.6	183.2	183.2	183.2
85°	17.3	22.5	34.5	39.8	76.0	96.8	103.7	105.4	112.3	114.1	114.1
87.5°	8.6	12.1	22.5	24.2	39.8	50.1	50.1	53.5	53.5	51.9	50.1
90°	5.4	9.8	14.1	15.3	24.0	35.6	41.3	36.7	27.6	20.7	20.7
92.5°	21.8	58.8	95.7	105.0	147.6	204.4	232.8	204.1	146.5	103.3	99.2
95°	52.2	119.9	187.7	204.6	363.3	574.8	680.6	607.4	460.8	350.9	338.4
97.5°	90.3	150.1	209.8	224.7	489.3	842.1	1018.5	972.2	879.6	810.1	786.4
100°	119.7	173.9	228.0	241.6	535.2	926.6	1122.4	1125.8	1132.6	1137.7	1109.4
102.5°	144.8	195.3	245.8	258.5	556.3	953.3	1151.8	1210.8	1328.8	1417.3	1393.2
105°	187.1	230.0	272.8	283.5	571.9	956.4	1148.6	1280.8	1545.3	1743.7	1730.7
107.5°	230.7	270.6	310.5	320.5	574.8	913.7	1083.2	1267.8	1636.7	1913.5	1916.6
110°	260.0	296.1	332.2	341.1	570.4	876.0	1028.8	1235.1	1647.6	1957.0	1970.5



TEST NUMBER: P937638

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	288.9	323.3	357.6	366.2	570.6	843.1	979.3	1190.4	1612.7	1929.3	1950.0
115°	332.4	364.1	395.7	403.7	575.8	805.2	920.0	1123.4	1530.2	1835.2	1864.1
117.5°	375.4	404.2	433.0	440.1	586.4	781.6	879.2	1062.7	1429.8	1705.1	1737.1
120°	400.4	427.6	454.6	461.4	595.3	773.7	862.9	1030.6	1366.0	1617.5	1648.6
122.5°	424.9	452.2	479.6	486.4	607.7	769.5	850.4	1001.4	1303.4	1529.9	1560.6
125°	462.4	487.4	512.3	518.5	624.6	766.1	836.8	965.1	1221.6	1414.1	1442.3
127.5°	493.0	518.1	543.3	549.6	641.5	764.1	825.4	935.5	1155.8	1321.0	1344.9
130°	509.3	536.4	563.4	570.2	653.9	765.3	821.0	919.0	1115.2	1262.3	1284.2
132.5°	526.1	553.2	580.3	587.1	663.8	766.1	817.2	905.0	1080.5	1212.2	1231.9
135°	551.1	575.8	600.5	606.7	674.7	765.3	810.6	884.2	1031.2	1141.5	1158.5
137.5°	576.7	601.1	625.6	631.7	691.0	770.1	809.6	871.8	996.0	1089.3	1103.1
140°	598.0	620.5	643.0	648.5	700.9	770.8	805.8	859.5	966.8	1047.3	1060.3
142.5°	614.3	635.1	655.9	661.1	709.3	773.6	805.8	852.9	947.2	1017.9	1029.1
145°	639.3	657.4	675.6	680.1	720.2	773.7	800.4	838.9	916.1	973.9	982.3
147.5°	664.3	681.9	699.5	704.0	736.1	778.9	800.4	830.7	891.4	936.9	943.9
150°	680.6	696.6	712.5	716.6	744.5	781.7	800.4	826.0	877.2	915.6	921.3
152.5°	697.5	709.7	721.7	724.7	749.9	783.5	800.4	822.2	866.0	898.8	903.1
155°	722.6	731.5	740.4	742.6	761.9	787.5	800.4	817.8	852.6	878.7	881.5
157.5°	741.1	749.8	758.4	760.6	773.8	791.5	800.4	813.9	841.0	861.3	863.3
160°	753.5	760.3	767.1	768.8	779.3	793.4	800.4	812.0	835.1	852.6	853.7
162.5°	766.1	771.1	776.2	777.5	785.1	795.3	800.4	810.1	829.7	844.4	845.4
165°	779.7	784.2	788.8	790.0	793.5	798.1	800.4	807.3	821.4	831.9	833.1
167.5°	792.2	794.3	796.5	797.0	799.9	803.8	805.8	810.4	819.5	826.4	826.9
170°	800.4	802.5	804.7	805.2	805.4	805.7	805.8	810.4	819.5	826.4	826.4
172.5°	804.7	805.1	805.7	805.8	805.8	805.8	805.8	809.4	816.7	822.1	821.6
175°	810.6	810.6	810.6	810.6	809.0	806.8	805.8	808.0	812.6	816.1	816.1
177.5°	810.6	810.6	810.6	810.6	809.4	807.8	806.9	808.7	812.3	815.0	814.5
180°	810.6	810.6	810.6	810.6	810.6	810.6	810.6	810.6	810.6	810.6	810.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	537.4	537.4
2.5°	573.8	570.3
5°	737.9	741.4
7.5°	993.7	992.0
10°	1235.7	1251.2
12.5°	1411.9	1415.4
15°	1519.1	1526.0
17.5°	1560.6	1562.2
20°	1562.2	1558.8
22.5°	1543.2	1539.8
25°	1520.8	1519.1
27.5°	1500.1	1501.8
30°	1491.4	1496.6
32.5°	1491.4	1500.1
35°	1494.9	1503.6
37.5°	1493.2	1503.6
40°	1486.2	1498.3
42.5°	1467.2	1475.9
45°	1437.9	1448.2
47.5°	1399.9	1406.8
50°	1351.5	1358.4
52.5°	1291.0	1292.7
55°	1218.4	1225.3
57.5°	1140.6	1142.4
60°	1054.2	1059.3
62.5°	962.6	962.6
65°	865.8	869.2
67.5°	765.6	774.2
70°	663.6	665.4
72.5°	563.4	563.4
75°	459.7	461.4
77.5°	361.2	361.2
80°	267.9	269.6
82.5°	185.0	188.4
85°	115.8	115.8
87.5°	53.5	48.4
90°	20.7	20.7
92.5°	82.8	66.4
95°	288.6	238.9
97.5°	691.6	596.8
100°	996.5	883.5
102.5°	1296.4	1199.7
105°	1678.8	1626.8
107.5°	1929.3	1941.8
110°	2024.8	2078.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2033.2	2116.4
115°	1979.3	2094.7
117.5°	1865.0	1992.9
120°	1772.9	1897.2
122.5°	1683.2	1805.8
125°	1555.2	1668.1
127.5°	1440.2	1535.4
130°	1372.3	1460.3
132.5°	1310.8	1389.6
135°	1226.4	1294.4
137.5°	1158.8	1214.4
140°	1112.4	1164.3
142.5°	1073.9	1118.6
145°	1016.3	1050.1
147.5°	972.0	1000.0
150°	944.1	966.8
152.5°	920.3	937.4
155°	892.9	904.2
157.5°	871.2	879.2
160°	858.3	862.9
162.5°	849.8	854.2
165°	837.7	842.2
167.5°	828.9	830.8
170°	826.4	826.4
172.5°	820.0	818.3
175°	816.1	816.1
177.5°	812.6	810.6
180°	810.6	810.6



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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	4.62	5.47	5.62	6.48	7.83	17.79	18.63	18.78	19.64	20.99
	3H	5.33	6.08	6.33	7.11	8.48	19.62	20.38	20.63	21.40	22.77
	4H	5.62	6.34	6.64	7.37	8.74	20.26	20.98	21.28	22.00	23.38
	6H	5.87	6.54	6.90	7.57	8.96	20.68	21.35	21.72	22.38	23.77
	8H	5.94	6.57	6.98	7.62	9.00	20.80	21.43	21.84	22.48	23.87
	12H	5.96	6.56	7.00	7.60	9.01	20.87	21.47	21.91	22.51	23.92
4H	2H	11.83	12.54	12.85	13.57	14.95	18.06	18.78	19.09	19.80	21.18
	3H	13.39	13.99	14.43	15.05	16.44	20.10	20.70	21.13	21.75	23.14
	4H	13.49	14.04	14.53	15.08	16.50	20.86	21.41	21.90	22.46	23.87
	6H	13.50	13.97	14.55	15.04	16.45	21.39	21.87	22.45	22.94	24.35
	8H	13.47	13.92	14.53	14.98	16.40	21.55	22.00	22.61	23.06	24.48
	12H	13.43	13.83	14.50	14.91	16.34	21.64	22.05	22.72	23.12	24.55
8H	4H	14.93	15.37	15.98	16.43	17.86	20.92	21.36	21.97	22.43	23.85
	6H	15.17	15.54	16.25	16.64	18.06	21.54	21.91	22.62	23.01	24.44
	8H	15.18	15.51	16.27	16.60	18.04	21.76	22.08	22.85	23.17	24.61
	12H	15.15	15.44	16.24	16.52	18.00	21.90	22.19	22.99	23.27	24.75
12H	4H	15.07	15.47	16.14	16.55	17.98	20.87	21.27	21.94	22.35	23.78
	6H	15.42	15.75	16.51	16.84	18.28	21.53	21.85	22.61	22.94	24.38
	8H	15.49	15.78	16.58	16.86	18.34	21.75	22.04	22.84	23.12	24.60