

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: P937467

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937467
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

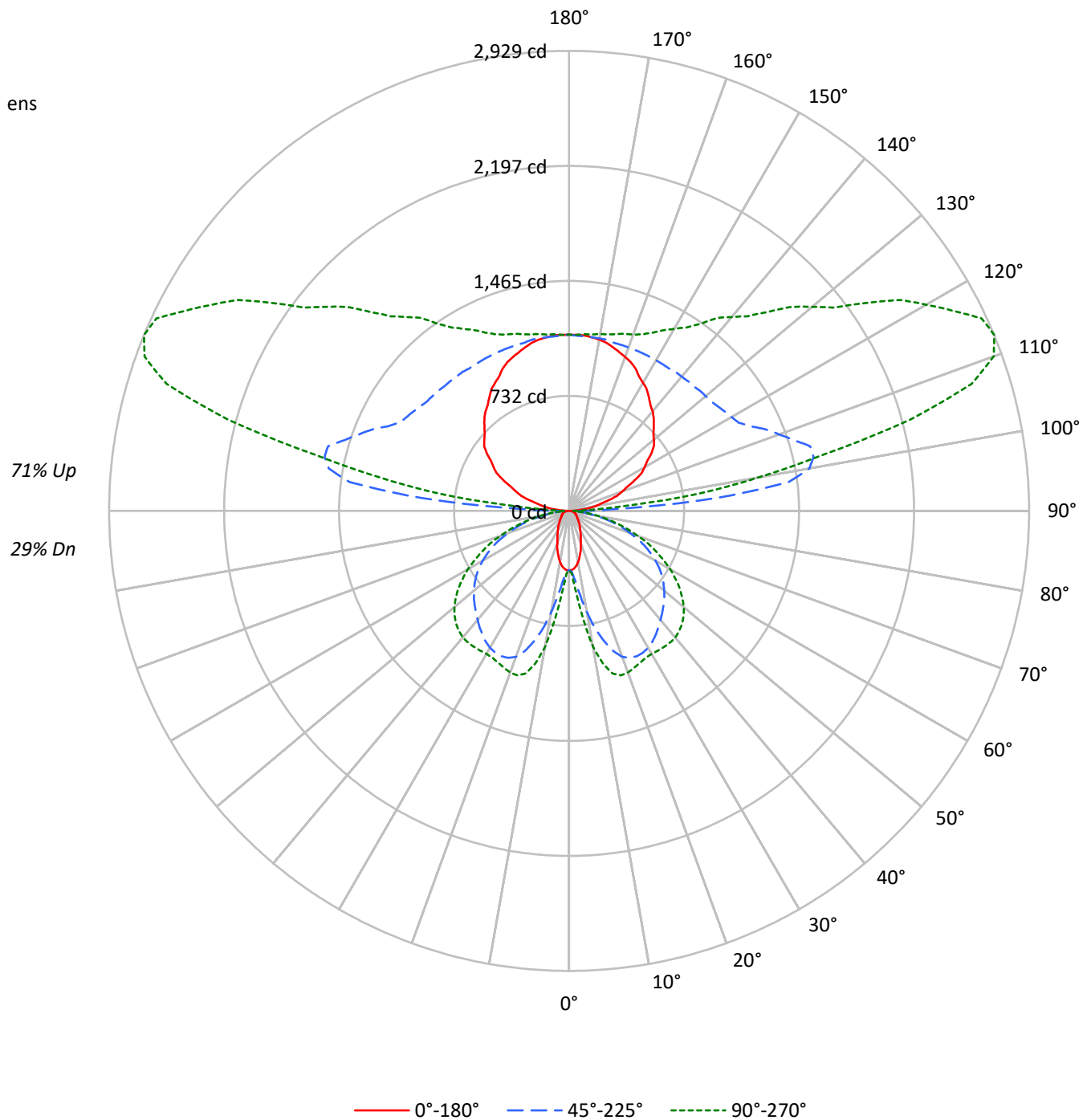
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10198.5 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 82.4
Input Voltage (V): NR
Input Current (A_{in}): 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





TEST NUMBER: P937467

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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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1751	1751	1751
5°	1712	2025	2355
10°	1552	2952	3904
15°	1319	3856	4714
20°	1074	4469	4804
25°	896	4676	4706
30°	755	4705	4698
35°	668	4628	4819
40°	582	4526	4945
45°	528	4452	4964
50°	484	4385	4882
55°	463	4286	4665
60°	474	4099	4323
65°	494	3812	3854
70°	526	3324	3256
75°	582	2711	2540
80°	636	1880	1712
85°	564	998	877

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4964 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	0.5
10°-20°	216.5	2.1
20°-30°	378.6	3.7
30°-40°	487.4	4.8
40°-50°	544.4	5.3
50°-60°	521.4	5.1
60°-70°	413.2	4.1
70°-80°	243.0	2.4
80°-90°	71.8	0.7
90°-100°	546.9	5.4
100°-110°	1437.8	14.1
110°-120°	1490.9	14.6
120°-130°	1195.9	11.7
130°-140°	938.3	9.2
140°-150°	720.2	7.1
150°-160°	518.7	5.1
160°-170°	317.4	3.1
170°-180°	107.2	1.1
0°-30°	643.9	6.3
0°-40°	1131.4	11.1
0°-60°	2197.2	21.5
0°-90°	2925.3	28.7
90°-120°	3475.6	34.1
90°-150°	6330.0	62.1
90°-180°	7273.0	71.3
0°-180°	10198.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	368	395	444	503	521	34
15°	276	509	857	1039	1072	77
25°	176	577	1021	1066	1067	81
35°	119	551	962	1016	1056	74
45°	81	440	850	974	1017	63
55°	58	279	721	838	861	53
65°	46	148	535	602	611	46
75°	34	91	294	323	324	36
85°	12	28	73	80	81	13
90°	8	21	57	29	29	7
95°	72	283	942	486	331	80
105°	259	392	1590	2413	2251	275
115°	460	559	1273	2540	2899	454
125°	640	718	1158	1957	2309	568
135°	763	840	1122	1580	1791	590
145°	885	941	1108	1348	1453	554
155°	1000	1028	1108	1216	1252	459
165°	1079	1093	1108	1151	1166	305
175°	1122	1122	1115	1130	1130	107
180°	1122	1122	1122	1122	1122	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5
2.5°	377.5	377.5	380.0	381.3	383.6	384.9	387.3	389.8	397.0	398.2	400.6
5°	367.9	372.7	388.5	394.6	411.6	434.7	444.3	460.1	493.0	502.6	508.7
7.5°	353.3	364.2	403.1	412.8	455.3	515.9	541.5	575.5	627.6	653.2	673.8
10°	330.2	353.3	422.5	445.6	514.8	607.0	654.4	701.8	780.6	815.8	829.2
12.5°	304.8	342.3	443.2	474.7	574.2	709.0	766.1	818.3	908.1	955.5	962.7
15°	275.6	326.6	462.5	508.7	637.4	794.0	857.2	921.5	1005.3	1039.2	1047.7
17.5°	250.1	314.5	480.8	529.3	685.9	870.5	934.9	988.3	1056.2	1079.3	1085.4
20°	218.5	295.0	493.0	556.0	737.0	926.3	988.3	1029.5	1075.7	1090.3	1092.7
22.5°	195.4	274.4	500.2	565.7	770.9	960.4	1012.5	1045.4	1076.9	1081.8	1082.9
25°	176.1	251.3	499.0	576.7	800.1	981.0	1021.0	1045.4	1063.6	1066.0	1066.0
27.5°	157.9	225.8	494.1	579.1	822.0	985.8	1017.4	1034.4	1042.9	1047.7	1047.7
30°	142.0	201.6	482.0	574.2	831.7	981.0	1006.4	1015.0	1023.5	1030.8	1034.4
32.5°	129.9	178.5	463.8	564.5	832.8	968.8	987.1	991.9	1004.0	1021.0	1027.1
35°	118.9	155.4	443.2	551.2	825.6	949.4	961.6	966.4	990.7	1016.2	1024.6
37.5°	108.1	138.4	416.5	528.2	814.6	926.3	934.9	943.4	981.0	1011.3	1021.0
40°	97.1	123.8	384.9	502.6	797.6	898.5	905.7	919.1	968.8	1004.0	1013.8
42.5°	88.6	111.7	350.8	475.9	775.8	866.9	877.8	897.2	954.3	991.9	1002.8
45°	81.4	99.6	314.5	439.5	747.8	834.1	849.9	876.6	937.3	973.7	983.4
47.5°	74.0	91.1	276.8	401.9	717.5	801.3	822.0	852.3	914.2	949.4	957.9
50°	68.0	82.6	239.1	361.8	684.8	766.1	790.4	822.0	885.1	917.8	928.8
52.5°	63.1	75.3	203.9	321.7	647.1	729.7	757.6	790.4	849.9	881.4	888.7
55°	58.3	69.2	173.6	279.2	608.3	690.8	721.1	752.7	811.0	837.7	842.6
57.5°	55.8	64.4	148.1	239.1	567.0	647.1	681.1	710.3	764.9	785.5	790.4
60°	52.2	60.7	128.7	205.2	522.1	605.8	635.0	664.1	710.3	727.2	730.9
62.5°	48.6	58.3	114.1	172.4	475.9	557.3	586.4	613.2	652.0	664.1	669.0
65°	46.2	55.8	103.2	148.1	428.6	506.3	535.4	558.5	590.1	602.2	604.6
67.5°	43.7	53.4	94.7	127.4	381.3	455.3	477.1	499.0	523.3	535.4	536.6
70°	40.1	51.0	87.4	112.9	332.6	397.0	415.2	438.3	457.7	463.8	467.4
72.5°	37.7	47.3	82.6	102.0	282.9	341.2	358.2	371.5	388.5	394.6	394.6
75°	34.0	42.5	77.7	91.1	231.9	279.2	293.8	307.1	320.5	323.0	319.3
77.5°	30.3	37.7	66.8	76.5	180.9	220.9	233.1	240.4	251.3	253.7	255.0
80°	25.5	32.8	52.2	59.5	131.2	162.7	171.2	177.2	187.0	187.0	189.4
82.5°	19.5	25.5	37.7	42.5	88.6	111.7	118.9	122.6	128.7	128.7	128.7
85°	12.1	15.7	24.3	27.9	53.4	68.0	72.9	74.0	78.9	80.1	80.1
87.5°	6.1	8.5	15.7	17.0	27.9	35.2	35.2	37.7	37.7	36.4	35.2
90°	7.5	13.6	19.6	21.1	33.1	49.2	57.2	50.9	38.1	28.6	28.6
92.5°	30.1	81.4	132.6	145.4	204.3	283.0	322.2	282.4	202.8	143.1	137.4
95°	72.3	166.0	259.7	283.1	502.7	795.5	942.0	840.6	637.8	485.7	468.5
97.5°	125.0	207.6	290.4	311.0	677.2	1165.5	1409.6	1345.5	1217.4	1121.2	1088.5
100°	165.6	240.6	315.6	334.4	740.7	1282.5	1553.4	1558.1	1567.5	1574.5	1535.4
102.5°	200.3	270.2	340.2	357.6	769.7	1319.3	1594.1	1675.7	1839.1	1961.6	1928.1
105°	259.1	318.3	377.5	392.3	791.4	1323.5	1589.6	1772.6	2138.7	2413.3	2395.3
107.5°	319.3	374.5	429.7	443.5	795.5	1264.6	1499.2	1754.6	2265.3	2648.2	2652.6
110°	359.9	409.8	459.6	472.1	789.4	1212.4	1423.9	1709.4	2280.3	2708.5	2727.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	399.8	447.3	494.9	506.8	789.7	1166.8	1355.4	1647.6	2231.9	2670.1	2698.9
115°	460.1	503.9	547.8	558.8	796.9	1114.5	1273.3	1554.8	2117.7	2539.9	2579.8
117.5°	519.6	559.4	599.2	609.2	811.7	1081.8	1216.8	1470.8	1978.9	2359.8	2404.1
120°	554.2	591.7	629.2	638.5	823.8	1070.8	1194.3	1426.4	1890.5	2238.6	2281.6
122.5°	588.1	625.9	663.8	673.2	841.1	1064.9	1176.9	1385.9	1803.9	2117.4	2159.9
125°	640.0	674.5	709.0	717.6	864.4	1060.2	1158.1	1335.7	1690.8	1957.0	1996.2
127.5°	682.2	717.0	751.8	760.5	887.8	1057.5	1142.3	1294.7	1599.6	1828.2	1861.2
130°	704.8	742.2	779.7	789.1	904.8	1059.1	1136.2	1271.9	1543.4	1747.0	1777.4
132.5°	728.1	765.6	803.1	812.5	918.6	1060.2	1131.0	1252.5	1495.4	1677.6	1704.9
135°	762.8	796.9	831.1	839.6	933.8	1059.2	1121.9	1223.7	1427.2	1579.8	1603.3
137.5°	798.2	831.9	865.8	874.2	956.3	1065.7	1120.4	1206.4	1378.5	1507.5	1526.7
140°	827.5	858.6	889.8	897.6	970.1	1066.8	1115.2	1189.5	1338.1	1449.5	1467.5
142.5°	850.1	878.9	907.7	914.8	981.6	1070.6	1115.2	1180.4	1310.9	1408.9	1424.4
145°	884.8	909.9	935.0	941.3	996.8	1070.7	1107.6	1161.1	1267.8	1347.9	1359.6
147.5°	919.4	943.8	968.3	974.4	1018.8	1078.0	1107.6	1149.6	1233.6	1296.6	1306.3
150°	942.0	964.1	986.2	991.7	1030.3	1081.8	1107.6	1143.1	1214.1	1267.3	1275.2
152.5°	965.4	982.1	998.8	1003.0	1037.9	1084.4	1107.6	1138.0	1198.5	1244.0	1249.9
155°	999.9	1012.3	1024.7	1027.8	1054.4	1089.9	1107.6	1131.7	1180.0	1216.1	1220.0
157.5°	1025.5	1037.6	1049.7	1052.7	1071.0	1095.4	1107.6	1126.4	1163.9	1192.0	1194.7
160°	1042.9	1052.3	1061.7	1064.0	1078.6	1098.0	1107.6	1123.8	1155.9	1180.0	1181.6
162.5°	1060.2	1067.3	1074.3	1076.1	1086.6	1100.6	1107.6	1121.2	1148.3	1168.7	1170.2
165°	1079.0	1085.4	1091.7	1093.3	1098.1	1104.5	1107.6	1117.3	1136.8	1151.4	1153.0
167.5°	1096.3	1099.3	1102.4	1103.1	1107.1	1112.4	1115.2	1121.5	1134.3	1143.8	1144.4
170°	1107.6	1110.6	1113.7	1114.4	1114.7	1115.0	1115.2	1121.5	1134.3	1143.8	1143.8
172.5°	1113.7	1114.3	1115.0	1115.2	1115.2	1115.2	1115.2	1120.2	1130.3	1137.8	1137.2
175°	1121.9	1121.9	1121.9	1121.9	1119.7	1116.7	1115.2	1118.3	1124.7	1129.5	1129.5
177.5°	1121.9	1121.9	1121.9	1121.9	1120.2	1117.9	1116.7	1119.2	1124.2	1128.0	1127.4
180°	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	377.5	377.5
2.5°	403.1	400.6
5°	518.4	520.8
7.5°	698.1	696.9
10°	868.0	879.0
12.5°	991.9	994.3
15°	1067.2	1072.1
17.5°	1096.3	1097.5
20°	1097.5	1095.1
22.5°	1084.2	1081.8
25°	1068.4	1067.2
27.5°	1053.8	1055.1
30°	1047.7	1051.4
32.5°	1047.7	1053.8
35°	1050.2	1056.2
37.5°	1049.0	1056.2
40°	1044.1	1052.6
42.5°	1030.8	1036.9
45°	1010.2	1017.4
47.5°	983.4	988.3
50°	949.4	954.3
52.5°	906.9	908.1
55°	855.9	860.8
57.5°	801.3	802.5
60°	740.6	744.2
62.5°	676.2	676.2
65°	608.3	610.7
67.5°	537.8	543.9
70°	466.2	467.4
72.5°	395.8	395.8
75°	323.0	324.1
77.5°	253.7	253.7
80°	188.2	189.4
82.5°	129.9	132.3
85°	81.4	81.4
87.5°	37.7	34.0
90°	28.6	28.6
92.5°	114.7	91.9
95°	399.5	330.6
97.5°	957.2	826.0
100°	1379.2	1222.9
102.5°	1794.2	1660.3
105°	2323.4	2251.4
107.5°	2670.0	2687.4
110°	2802.2	2877.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2814.0	2929.1
115°	2739.4	2899.0
117.5°	2581.2	2758.2
120°	2453.7	2625.7
122.5°	2329.5	2499.1
125°	2152.4	2308.7
127.5°	1993.1	2125.0
130°	1899.2	2021.0
132.5°	1814.0	1923.1
135°	1697.4	1791.4
137.5°	1603.7	1680.7
140°	1539.4	1611.4
142.5°	1486.3	1548.2
145°	1406.4	1453.2
147.5°	1345.2	1384.0
150°	1306.6	1338.1
152.5°	1273.7	1297.4
155°	1235.7	1251.5
157.5°	1205.8	1216.8
160°	1187.9	1194.3
162.5°	1176.2	1182.2
165°	1159.3	1165.7
167.5°	1147.1	1149.8
170°	1143.8	1143.8
172.5°	1134.9	1132.5
175°	1129.5	1129.5
177.5°	1124.7	1121.9
180°	1121.9	1121.9



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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	0.58	1.30	1.70	2.41	3.95	13.76	14.48	14.87	15.59	17.13
	3H	1.27	1.92	2.40	3.04	4.60	15.59	16.23	16.71	17.35	18.91
	4H	1.57	2.18	2.70	3.30	4.86	16.23	16.84	17.36	17.96	19.52
	6H	1.81	2.37	2.95	3.50	5.07	16.65	17.21	17.79	18.34	19.91
	8H	1.87	2.41	3.02	3.55	5.12	16.76	17.30	17.91	18.44	20.01
	12H	1.88	2.39	3.03	3.53	5.12	16.83	17.34	17.98	18.47	20.06
4H	2H	7.78	8.39	8.92	9.51	11.08	14.01	14.63	15.16	15.75	17.31
	3H	9.33	9.84	10.48	10.99	12.57	16.05	16.56	17.19	17.71	19.28
	4H	9.42	9.89	10.57	11.03	12.62	16.81	17.28	17.96	18.41	20.01
	6H	9.42	9.82	10.58	10.98	12.57	17.34	17.74	18.49	18.90	20.49
	8H	9.39	9.77	10.55	10.92	12.53	17.50	17.87	18.65	19.02	20.63
	12H	9.34	9.69	10.52	10.85	12.46	17.58	17.92	18.75	19.09	20.70
8H	4H	10.85	11.23	12.01	12.38	13.99	16.86	17.23	18.01	18.38	19.99
	6H	11.09	11.40	12.26	12.59	14.19	17.48	17.79	18.65	18.98	20.58
	8H	11.10	11.37	12.28	12.55	14.17	17.70	17.97	18.88	19.14	20.76
	12H	11.06	11.30	12.25	12.47	14.13	17.83	18.07	19.02	19.24	20.90
12H	4H	10.99	11.33	12.16	12.49	14.10	16.80	17.14	17.97	18.31	19.92
	6H	11.34	11.62	12.53	12.79	14.41	17.46	17.73	18.64	18.90	20.52
	8H	11.41	11.64	12.59	12.81	14.47	17.68	17.92	18.87	19.09	20.74