

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: P936948

Luminaire Tested: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936948
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-8-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

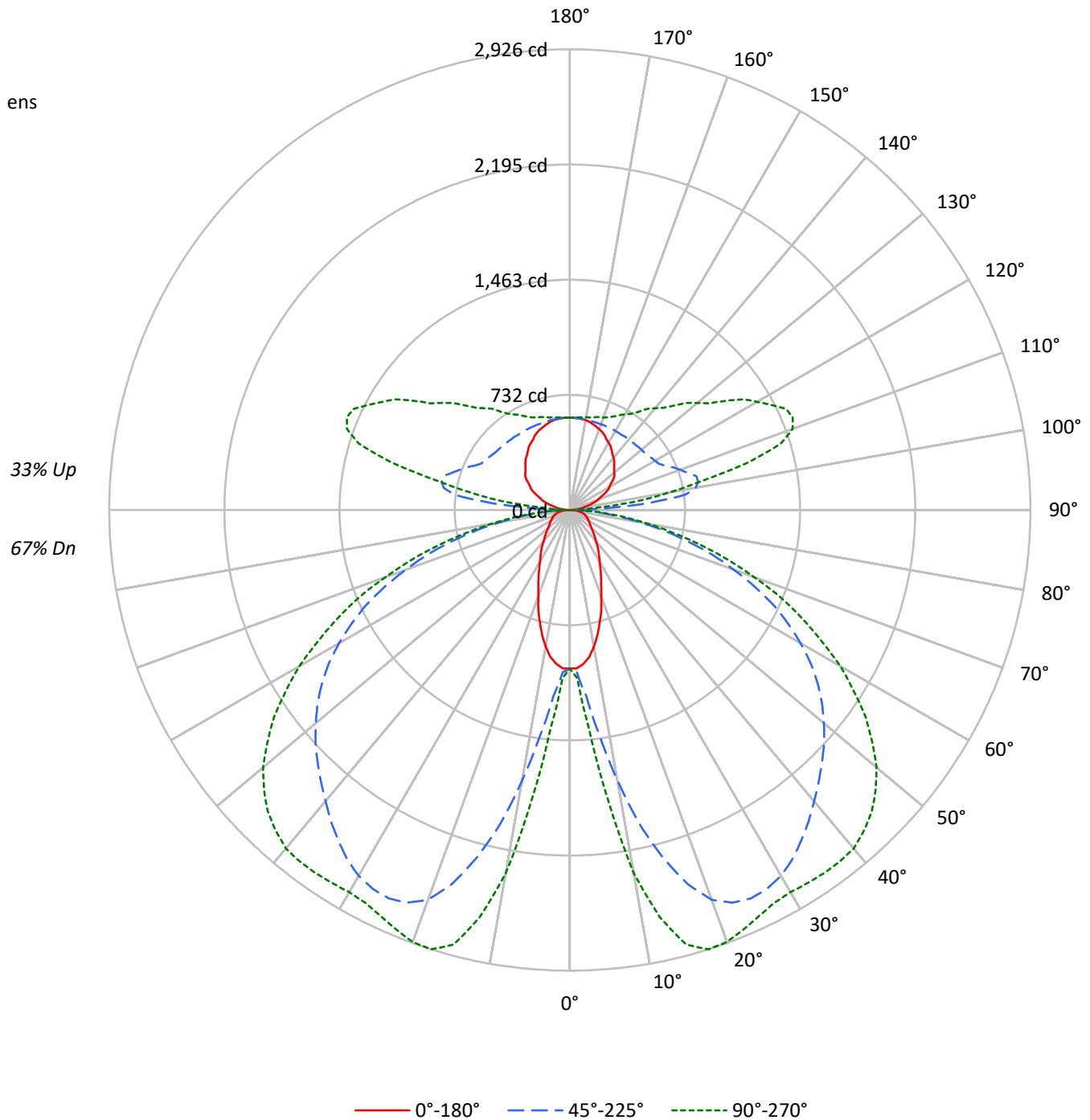
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11595.8 lumens
Efficiency: N/A
Efficacy: 103.5 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-Direct

Input Watts (W): 112
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-050U-125D-92765-1D-UNV-STD-W-8-6500K

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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4670	4670	4670
5°	4562	5397	6277
10°	4138	7868	10407
15°	3517	10279	12565
20°	2863	11912	12806
25°	2389	12465	12546
30°	2014	12543	12522
35°	1781	12335	12846
40°	1552	12065	13180
45°	1406	11866	13232
50°	1289	11688	13013
55°	1235	11427	12436
60°	1263	10925	11525
65°	1315	10162	10274
70°	1401	8862	8679
75°	1552	7226	6773
80°	1697	5011	4564
85°	1504	2659	2337

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13232 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	1.1
10°-20°	577.0	5.0
20°-30°	1009.3	8.7
30°-40°	1299.3	11.2
40°-50°	1451.3	12.5
50°-60°	1390.0	12.0
60°-70°	1101.6	9.5
70°-80°	647.8	5.6
80°-90°	182.2	1.6
90°-100°	286.3	2.5
100°-110°	752.6	6.5
110°-120°	780.4	6.7
120°-130°	626.0	5.4
130°-140°	491.2	4.2
140°-150°	377.0	3.3
150°-160°	271.5	2.3
160°-170°	166.1	1.4
170°-180°	56.1	0.5
0°-30°	1716.5	14.8
0°-40°	3015.8	26.0
0°-60°	5857.0	50.5
0°-90°	7788.5	67.2
90°-120°	1819.3	15.7
90°-150°	3313.5	28.6
90°-180°	3807.0	32.8
0°-180°	11595.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	981	1052	1184	1340	1388	91
15°	735	1356	2285	2770	2858	204
25°	469	1537	2722	2842	2845	216
35°	317	1469	2563	2709	2816	198
45°	217	1172	2265	2596	2712	168
55°	155	744	1922	2233	2295	142
65°	123	395	1427	1605	1628	122
75°	91	243	783	861	864	95
85°	32	74	194	214	217	34
90°	4	11	30	15	15	5
95°	38	148	493	254	173	42
105°	136	205	832	1263	1178	144
115°	241	292	667	1330	1518	238
125°	335	376	606	1024	1208	297
135°	399	440	587	827	938	309
145°	463	493	580	706	761	290
155°	523	538	580	636	655	240
165°	565	572	580	603	610	159
175°	587	587	584	591	591	56
180°	587	587	587	587	587	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5
2.5°	1006.5	1006.5	1013.0	1016.2	1022.6	1025.9	1032.4	1038.9	1058.3	1061.6	1068.0
5°	980.6	993.6	1035.7	1051.8	1097.1	1158.6	1184.5	1226.6	1313.9	1339.8	1356.0
7.5°	941.8	970.9	1074.5	1100.4	1213.6	1375.5	1443.4	1534.0	1673.1	1741.1	1796.2
10°	880.3	941.8	1126.2	1187.7	1372.2	1618.2	1744.4	1870.6	2081.0	2174.9	2210.4
12.5°	812.3	912.7	1181.3	1265.4	1530.8	1890.0	2042.1	2181.3	2420.8	2547.0	2566.4
15°	734.6	870.6	1233.0	1356.0	1699.1	2116.5	2284.8	2456.4	2679.7	2770.3	2792.9
17.5°	666.7	838.2	1281.6	1411.1	1828.5	2320.5	2491.9	2634.4	2815.6	2877.1	2893.2
20°	582.5	786.5	1313.9	1482.2	1964.5	2469.4	2634.4	2744.4	2867.4	2906.3	2912.7
22.5°	521.0	731.4	1333.4	1508.1	2055.0	2559.9	2699.1	2786.4	2870.6	2883.6	2886.8
25°	469.3	669.9	1330.2	1537.3	2132.8	2615.0	2721.8	2786.4	2835.0	2841.5	2841.5
27.5°	420.7	601.9	1317.2	1543.8	2191.0	2627.9	2712.1	2757.4	2780.0	2792.9	2792.9
30°	378.7	537.2	1284.8	1530.8	2216.9	2615.0	2682.9	2705.5	2728.2	2747.6	2757.4
32.5°	346.3	475.7	1236.3	1504.9	2220.1	2582.6	2631.2	2644.1	2676.5	2721.8	2738.0
35°	317.2	414.2	1181.3	1469.3	2200.7	2530.9	2563.2	2576.1	2640.8	2708.8	2731.5
37.5°	288.0	368.9	1110.0	1407.8	2171.6	2469.4	2491.9	2514.6	2615.0	2695.9	2721.8
40°	258.9	330.1	1025.9	1339.8	2126.3	2394.9	2414.3	2449.9	2582.6	2676.5	2702.3
42.5°	236.3	297.8	935.3	1268.7	2068.1	2310.7	2339.9	2391.6	2543.8	2644.1	2673.2
45°	216.9	265.3	838.2	1171.5	1993.6	2223.3	2265.4	2336.6	2498.4	2595.6	2621.4
47.5°	197.5	242.7	737.9	1071.2	1912.7	2135.9	2191.0	2271.9	2437.0	2530.9	2553.5
50°	181.2	220.1	637.6	964.4	1825.3	2042.1	2106.9	2191.0	2359.3	2446.7	2475.8
52.5°	168.3	200.6	543.7	857.6	1725.0	1945.0	2019.5	2106.9	2265.4	2349.6	2369.0
55°	155.4	184.4	462.8	744.4	1621.4	1841.4	1922.4	2006.6	2161.9	2233.1	2246.0
57.5°	148.9	171.5	394.8	637.6	1511.4	1725.0	1815.6	1893.3	2038.9	2093.9	2106.9
60°	139.1	161.8	343.1	546.9	1391.6	1614.9	1692.6	1770.3	1893.3	1938.6	1948.2
62.5°	129.5	155.4	304.3	459.5	1268.7	1485.4	1563.2	1634.3	1737.9	1770.3	1783.2
65°	123.0	148.9	275.1	394.8	1142.5	1349.6	1427.2	1488.7	1572.8	1605.3	1611.7
67.5°	116.5	142.4	252.4	339.8	1016.2	1213.6	1271.8	1330.2	1394.9	1427.2	1430.5
70°	106.8	136.0	233.0	301.0	886.8	1058.3	1106.8	1168.3	1220.1	1236.3	1246.0
72.5°	100.3	126.2	220.1	271.8	754.1	909.4	954.8	990.3	1035.7	1051.8	1051.8
75°	90.6	113.3	207.1	242.7	618.2	744.4	783.2	818.8	854.4	860.9	851.2
77.5°	80.9	100.3	178.0	203.9	482.2	589.0	621.3	640.8	669.9	676.4	679.7
80°	68.0	87.4	139.1	158.5	349.5	433.6	456.3	472.6	498.4	498.4	504.9
82.5°	51.8	68.0	100.3	113.3	236.3	297.8	317.2	326.8	343.1	343.1	343.1
85°	32.3	42.1	64.7	74.4	142.4	181.2	194.2	197.5	210.4	213.6	213.6
87.5°	16.2	22.7	42.1	45.3	74.4	93.9	93.9	100.3	100.3	97.1	93.9
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.6	20.0	15.0	15.0
92.5°	15.8	42.6	69.4	76.1	107.0	148.1	168.7	147.8	106.1	74.9	71.9
95°	37.9	86.9	136.0	148.2	263.1	416.4	493.1	440.0	333.9	254.3	245.3
97.5°	65.4	108.6	151.9	162.7	354.5	610.1	737.9	704.3	637.2	586.9	569.7
100°	86.7	125.9	165.1	175.0	387.7	671.3	813.1	815.6	820.5	824.1	803.7
102.5°	104.9	141.5	178.0	187.2	402.9	690.7	834.5	877.2	962.7	1026.8	1009.3
105°	135.6	166.6	197.6	205.4	414.3	692.9	832.1	927.9	1119.6	1263.3	1253.9
107.5°	167.1	196.0	224.9	232.2	416.3	662.0	784.7	918.4	1185.8	1386.3	1388.6
110°	188.4	214.5	240.7	247.2	413.3	634.6	745.4	894.8	1193.6	1417.7	1427.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.3	234.2	259.0	265.2	413.4	610.8	709.5	862.4	1168.3	1397.7	1412.8
115°	240.9	263.8	286.8	292.5	417.2	583.5	666.6	813.9	1108.5	1329.5	1350.3
117.5°	271.9	292.8	313.6	318.9	424.9	566.3	636.9	769.9	1035.8	1235.3	1258.4
120°	290.1	309.7	329.4	334.3	431.2	560.5	625.2	746.6	989.6	1171.8	1194.3
122.5°	307.8	327.6	347.4	352.4	440.2	557.5	616.1	725.5	944.3	1108.4	1130.6
125°	335.1	353.0	371.1	375.6	452.5	555.0	606.2	699.2	885.1	1024.5	1044.9
127.5°	357.1	375.3	393.5	398.1	464.7	553.5	597.9	677.7	837.3	957.1	974.3
130°	368.9	388.5	408.2	413.1	473.6	554.4	594.8	665.8	807.9	914.4	930.4
132.5°	381.1	400.7	420.4	425.3	480.9	555.0	592.1	655.7	782.8	878.2	892.4
135°	399.3	417.2	435.0	439.5	488.7	554.4	587.3	640.6	747.1	826.9	839.3
137.5°	417.9	435.5	453.2	457.6	500.6	557.8	586.5	631.6	721.6	789.1	799.2
140°	433.2	449.5	465.8	469.9	507.8	558.4	583.8	622.7	700.4	758.7	768.1
142.5°	445.0	460.0	475.1	478.9	513.9	560.4	583.8	617.9	686.3	737.5	745.6
145°	463.2	476.3	489.5	492.7	521.8	560.5	579.8	607.8	663.7	705.6	711.7
147.5°	481.3	494.1	506.9	510.0	533.3	564.3	579.8	601.8	645.7	678.7	683.8
150°	493.1	504.7	516.2	519.1	539.4	566.4	579.8	598.4	635.6	663.4	667.5
152.5°	505.3	514.1	522.8	525.0	543.3	567.7	579.8	595.7	627.4	651.2	654.3
155°	523.4	529.9	536.4	538.0	552.0	570.6	579.8	592.5	617.6	636.5	638.6
157.5°	536.8	543.1	549.4	551.1	560.6	573.4	579.8	589.6	609.2	623.9	625.4
160°	545.9	550.9	555.7	557.0	564.6	574.8	579.8	588.2	605.0	617.6	618.5
162.5°	555.0	558.7	562.3	563.3	568.8	576.2	579.8	586.9	601.2	611.8	612.5
165°	564.8	568.2	571.4	572.3	574.8	578.1	579.8	584.9	595.0	602.7	603.5
167.5°	573.9	575.4	577.1	577.4	579.5	582.3	583.8	587.1	593.8	598.8	599.2
170°	579.8	581.4	583.0	583.4	583.5	583.7	583.8	587.1	593.8	598.8	598.8
172.5°	583.0	583.4	583.7	583.8	583.8	583.8	583.8	586.4	591.7	595.6	595.3
175°	587.3	587.3	587.3	587.3	586.1	584.5	583.8	585.4	588.7	591.2	591.2
177.5°	587.3	587.3	587.3	587.3	586.3	585.1	584.5	585.9	588.4	590.4	590.1
180°	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1006.5	1006.5
2.5°	1074.5	1068.0
5°	1381.9	1388.4
7.5°	1860.8	1857.7
10°	2314.0	2343.2
12.5°	2644.1	2650.6
15°	2844.8	2857.7
17.5°	2922.4	2925.7
20°	2925.7	2919.2
22.5°	2890.1	2883.6
25°	2848.0	2844.8
27.5°	2809.1	2812.4
30°	2792.9	2802.7
32.5°	2792.9	2809.1
35°	2799.4	2815.6
37.5°	2796.2	2815.6
40°	2783.3	2805.9
42.5°	2747.6	2763.9
45°	2692.6	2712.1
47.5°	2621.4	2634.4
50°	2530.9	2543.8
52.5°	2417.5	2420.8
55°	2281.6	2294.6
57.5°	2135.9	2139.2
60°	1974.2	1983.9
62.5°	1802.6	1802.6
65°	1621.4	1627.9
67.5°	1433.7	1449.9
70°	1242.8	1246.0
72.5°	1055.1	1055.1
75°	860.9	864.1
77.5°	676.4	676.4
80°	501.6	504.9
82.5°	346.3	352.7
85°	216.9	216.9
87.5°	100.3	90.6
90°	15.0	15.0
92.5°	60.0	48.1
95°	209.1	173.1
97.5°	501.0	432.4
100°	721.9	640.1
102.5°	939.2	869.1
105°	1216.2	1178.5
107.5°	1397.7	1406.8
110°	1466.8	1506.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1473.0	1533.3
115°	1433.9	1517.5
117.5°	1351.2	1443.9
120°	1284.4	1374.4
122.5°	1219.4	1308.3
125°	1126.7	1208.5
127.5°	1043.3	1112.3
130°	994.2	1057.9
132.5°	949.6	1006.7
135°	888.5	937.7
137.5°	839.5	879.8
140°	805.8	843.5
142.5°	778.0	810.4
145°	736.3	760.7
147.5°	704.1	724.5
150°	684.0	700.4
152.5°	666.8	679.2
155°	646.9	655.1
157.5°	631.2	636.9
160°	621.8	625.2
162.5°	615.7	618.8
165°	606.8	610.1
167.5°	600.5	601.9
170°	598.8	598.8
172.5°	594.1	592.8
175°	591.2	591.2
177.5°	588.7	587.3
180°	587.3	587.3



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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	7.79	8.88	8.57	9.70	10.70	20.97	22.06	21.75	22.88	23.88
	3H	8.51	9.50	9.31	10.32	11.35	22.82	23.81	23.62	24.64	25.66
	4H	8.82	9.75	9.63	10.59	11.62	23.48	24.41	24.29	25.25	26.28
	6H	9.08	9.95	9.91	10.79	11.84	23.92	24.79	24.75	25.63	26.68
	8H	9.16	9.98	9.99	10.84	11.89	24.05	24.87	24.89	25.73	26.79
	12H	9.18	9.97	10.03	10.82	11.90	24.12	24.91	24.97	25.77	26.85
4H	2H	15.03	15.97	15.85	16.80	17.84	21.27	22.20	22.09	23.04	24.07
	3H	16.62	17.40	17.45	18.27	19.32	23.33	24.12	24.17	24.98	26.04
	4H	16.72	17.44	17.57	18.30	19.39	24.11	24.83	24.96	25.69	26.77
	6H	16.75	17.37	17.61	18.26	19.34	24.67	25.29	25.53	26.17	27.26
	8H	16.73	17.31	17.60	18.20	19.30	24.83	25.41	25.70	26.30	27.40
	12H	16.70	17.23	17.59	18.13	19.23	24.94	25.46	25.83	26.37	27.47
8H	4H	18.19	18.77	19.05	19.65	20.75	24.19	24.77	25.06	25.66	26.76
	6H	18.44	18.93	19.34	19.85	20.95	24.83	25.32	25.73	26.24	27.34
	8H	18.46	18.89	19.37	19.81	20.93	25.06	25.49	25.96	26.40	27.52
	12H	18.44	18.82	19.35	19.73	20.90	25.21	25.59	26.12	26.50	27.67
12H	4H	18.34	18.87	19.23	19.77	20.88	24.16	24.68	25.04	25.58	26.69
	6H	18.70	19.13	19.61	20.05	21.17	24.82	25.25	25.72	26.17	27.28
	8H	18.79	19.16	19.69	20.07	21.24	25.06	25.44	25.97	26.35	27.52