

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: P936428

Luminaire Tested: SQ4-FB-025U-100D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

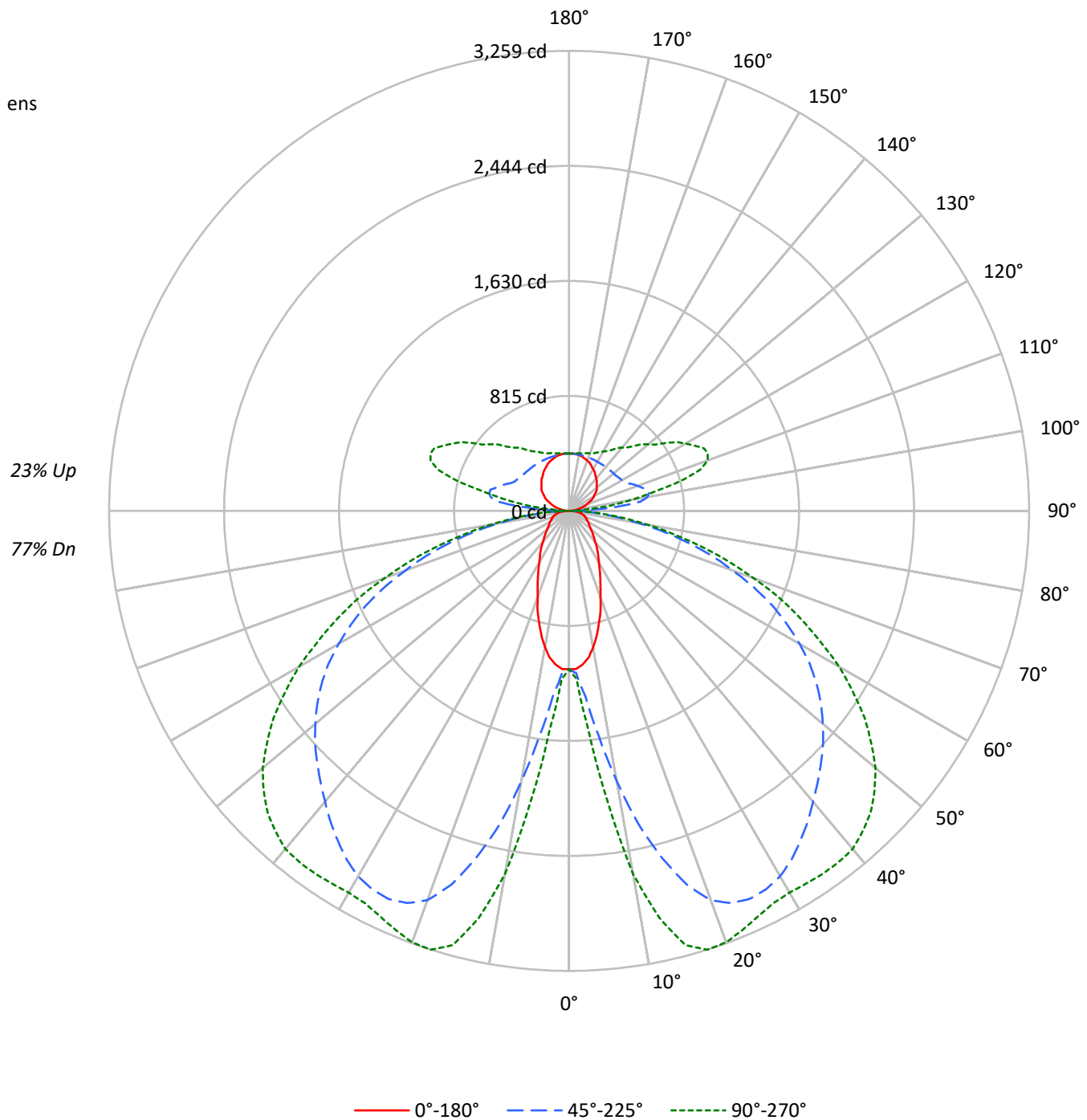
Test Method: LM-79-2019  
Report Number: P936428  
REPORT IS A COMBINATION OF REPORTS P933431 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-100D-92765-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11315.9 lumens  
Efficiency: N/A  
Efficacy: 97.2 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: Semi-Direct  
  
Input Watts (W): 116.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P936428

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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	50	30	10	0
RCR																					
0	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77			77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66	63			63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55	51			51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45	42			42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38	35			35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33	30			30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28	26			26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25	22			22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22	20			20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	19	17			17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17	16			16

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

	0°	45°	90°
0°	3468	3468	3468
5°	3390	4010	4662
10°	3076	5846	7729
15°	2615	7640	9332
20°	2129	8856	9511
25°	1777	9269	9318
30°	1499	9330	9300
35°	1326	9177	9540
40°	1156	8978	9789
45°	1048	8834	9828
50°	962	8704	9665
55°	922	8513	9236
60°	945	8143	8560
65°	985	7578	7630
70°	1052	6614	6446
75°	1171	5397	5031
80°	1288	3748	3389
85°	1166	1992	1735

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9828 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.0	1.3
10°-20°	642.8	5.7
20°-30°	1124.4	9.9
30°-40°	1447.5	12.8
40°-50°	1616.8	14.3
50°-60°	1548.5	13.7
60°-70°	1227.2	10.8
70°-80°	721.6	6.4
80°-90°	202.0	1.8
90°-100°	198.5	1.8
100°-110°	521.9	4.6
110°-120°	541.2	4.8
120°-130°	434.1	3.8
130°-140°	340.6	3.0
140°-150°	261.4	2.3
150°-160°	188.3	1.7
160°-170°	115.2	1.0
170°-180°	38.9	0.3
0°-30°	1912.3	16.9
0°-40°	3359.8	29.7
0°-60°	6525.0	57.7
0°-90°	8675.8	76.7
90°-120°	1261.6	11.1
90°-150°	2297.6	20.3
90°-180°	2640.0	23.3
0°-180°	11315.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1092	1172	1320	1493	1547	101
15°	818	1511	2545	3086	3184	228
25°	523	1713	3032	3166	3169	241
35°	353	1637	2856	3018	3137	221
45°	242	1305	2524	2892	3021	187
55°	173	829	2142	2488	2556	158
65°	137	440	1590	1788	1814	136
75°	101	270	872	959	963	106
85°	36	83	216	238	242	38
90°	3	8	21	10	10	5
95°	26	103	342	176	120	29
105°	94	142	577	876	817	100
115°	167	203	462	922	1052	165
125°	232	260	420	710	838	206
135°	277	305	407	573	650	214
145°	321	342	402	489	528	201
155°	363	373	402	441	454	167
165°	392	397	402	418	423	111
175°	407	407	405	410	410	39
180°	407	407	407	407	407	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3
2.5°	1121.3	1121.3	1128.5	1132.1	1139.3	1143.0	1150.1	1157.3	1179.0	1182.6	1189.8
5°	1092.5	1106.8	1153.8	1171.8	1222.3	1290.8	1319.6	1366.5	1463.8	1492.6	1510.6
7.5°	1049.2	1081.6	1197.0	1225.8	1352.0	1532.3	1608.1	1708.9	1864.0	1939.7	2001.0
10°	980.7	1049.2	1254.7	1323.2	1528.7	1802.7	1943.3	2084.0	2318.3	2422.8	2462.5
12.5°	905.0	1016.7	1316.0	1409.8	1705.4	2105.5	2275.0	2430.1	2696.9	2837.5	2859.1
15°	818.4	969.9	1373.6	1510.6	1892.9	2358.0	2545.4	2736.6	2985.3	3086.2	3111.5
17.5°	742.7	933.8	1427.8	1571.9	2037.0	2585.1	2776.2	2934.9	3136.7	3205.2	3223.3
20°	648.9	876.2	1463.8	1651.3	2188.5	2750.9	2934.9	3057.4	3194.4	3237.7	3244.9
22.5°	580.4	814.9	1485.4	1680.1	2289.5	2851.9	3006.9	3104.3	3198.0	3212.5	3216.0
25°	522.8	746.4	1481.8	1712.6	2376.0	2913.2	3032.2	3104.3	3158.4	3165.5	3165.5
27.5°	468.7	670.6	1467.4	1719.8	2440.9	2927.6	3021.4	3071.8	3097.0	3111.5	3111.5
30°	421.8	598.5	1431.3	1705.4	2469.8	2913.2	2988.9	3014.2	3039.4	3061.0	3071.8
32.5°	385.8	530.0	1377.3	1676.6	2473.3	2877.2	2931.2	2945.7	2981.7	3032.2	3050.2
35°	353.3	461.5	1316.0	1636.9	2451.7	2819.4	2855.5	2869.9	2942.0	3017.7	3043.0
37.5°	320.9	411.1	1236.7	1568.4	2419.3	2750.9	2776.2	2801.4	2913.2	3003.3	3032.2
40°	288.4	367.8	1143.0	1492.6	2368.8	2668.1	2689.6	2729.3	2877.2	2981.7	3010.5
42.5°	263.2	331.7	1042.0	1413.3	2303.8	2574.3	2606.7	2664.4	2833.9	2945.7	2978.1
45°	241.6	295.6	933.8	1305.1	2221.0	2476.9	2523.8	2603.1	2783.4	2891.6	2920.4
47.5°	220.0	270.4	822.0	1193.4	2130.8	2379.6	2440.9	2531.0	2714.9	2819.4	2844.7
50°	201.9	245.1	710.2	1074.5	2033.5	2275.0	2347.1	2440.9	2628.4	2725.7	2758.2
52.5°	187.5	223.5	605.7	955.5	1921.7	2166.8	2249.8	2347.1	2523.8	2617.6	2639.2
55°	173.1	205.5	515.6	829.2	1806.4	2051.5	2141.6	2235.3	2408.4	2487.8	2502.1
57.5°	165.8	191.1	439.9	710.2	1683.7	1921.7	2022.7	2109.2	2271.5	2332.7	2347.1
60°	155.0	180.3	382.1	609.3	1550.3	1799.1	1885.7	1972.2	2109.2	2159.7	2170.5
62.5°	144.2	173.1	338.9	511.9	1413.3	1654.9	1741.4	1820.7	1936.2	1972.2	1986.6
65°	137.0	165.8	306.5	439.9	1272.8	1503.4	1590.0	1658.5	1752.2	1788.3	1795.5
67.5°	129.8	158.6	281.3	378.6	1132.1	1352.0	1416.9	1481.8	1553.9	1590.0	1593.6
70°	119.0	151.5	259.6	335.3	987.9	1179.0	1233.1	1301.6	1359.3	1377.3	1388.1
72.5°	111.8	140.6	245.1	302.8	840.0	1013.2	1063.6	1103.3	1153.8	1171.8	1171.8
75°	101.0	126.2	230.8	270.4	688.6	829.2	872.5	912.2	951.8	959.0	948.2
77.5°	90.1	111.8	198.3	227.1	537.2	656.2	692.2	713.9	746.4	753.5	757.2
80°	75.7	97.3	155.0	176.7	389.4	483.1	508.4	526.4	555.2	555.2	562.4
82.5°	57.7	75.7	111.8	126.2	263.2	331.7	353.3	364.1	382.1	382.1	382.1
85°	36.0	46.8	72.1	83.0	158.6	201.9	216.3	220.0	234.3	238.0	238.0
87.5°	18.0	25.2	46.8	50.5	83.0	104.5	104.5	111.8	111.8	108.2	104.5
90°	2.7	4.9	7.1	7.6	12.0	17.8	20.7	18.5	13.8	10.4	10.4
92.5°	10.9	29.5	48.1	52.8	74.1	102.7	117.0	102.5	73.6	51.9	49.8
95°	26.2	60.2	94.2	102.8	182.5	288.8	341.9	305.1	231.5	176.3	170.0
97.5°	45.4	75.4	105.4	112.9	245.8	423.1	511.7	488.4	441.9	407.0	395.1
100°	60.1	87.3	114.5	121.3	268.9	465.6	563.9	565.6	569.0	571.5	557.3
102.5°	72.7	98.1	123.4	129.8	279.4	478.9	578.6	608.3	667.5	712.0	699.8
105°	94.1	115.5	137.0	142.4	287.3	480.4	577.0	643.4	776.3	876.0	869.4
107.5°	115.9	135.9	156.0	161.0	288.7	459.0	544.1	636.8	822.2	961.3	962.9
110°	130.6	148.7	166.8	171.4	286.5	440.1	516.9	620.5	827.7	983.1	990.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	145.2	162.4	179.7	183.9	286.6	423.5	492.0	598.1	810.1	969.2	979.7
115°	167.0	182.9	198.8	202.8	289.3	404.5	462.2	564.3	768.6	921.9	936.4
117.5°	188.6	203.0	217.5	221.1	294.6	392.7	441.7	534.0	718.3	856.6	872.7
120°	201.1	214.8	228.4	231.8	299.0	388.6	433.4	517.7	686.2	812.6	828.2
122.5°	213.5	227.2	240.9	244.3	305.3	386.5	427.2	503.0	654.8	768.6	783.9
125°	232.3	244.9	257.4	260.5	313.8	384.9	420.3	484.7	613.6	710.3	724.5
127.5°	247.6	260.2	272.9	276.1	322.3	383.9	414.6	469.9	580.6	663.6	675.6
130°	255.8	269.4	283.1	286.4	328.5	384.4	412.4	461.7	560.2	634.1	645.2
132.5°	264.3	277.9	291.5	294.9	333.5	384.9	410.5	454.6	542.9	609.0	618.9
135°	276.9	289.3	301.6	304.7	338.9	384.5	407.2	444.2	518.0	573.4	582.0
137.5°	289.7	302.0	314.2	317.3	347.1	386.9	406.7	437.9	500.3	547.1	554.2
140°	300.4	311.6	323.0	325.8	352.1	387.2	404.8	431.7	485.7	526.1	532.7
142.5°	308.5	319.0	329.5	332.1	356.3	388.6	404.8	428.4	475.8	511.4	517.0
145°	321.2	330.3	339.4	341.7	361.8	388.6	402.1	421.4	460.2	489.2	493.5
147.5°	333.7	342.6	351.5	353.7	369.8	391.3	402.1	417.3	447.8	470.6	474.2
150°	341.9	349.9	357.9	359.9	374.0	392.7	402.1	415.0	440.7	460.0	462.8
152.5°	350.4	356.5	362.5	364.0	376.7	393.6	402.1	413.1	435.1	451.5	453.7
155°	362.9	367.4	372.0	373.0	382.7	395.6	402.1	410.8	428.3	441.4	442.9
157.5°	372.2	376.6	381.0	382.1	388.8	397.6	402.1	408.9	422.4	432.6	433.6
160°	378.6	382.0	385.4	386.2	391.5	398.5	402.1	407.9	419.5	428.3	428.8
162.5°	384.9	387.4	390.0	390.6	394.4	399.5	402.1	407.0	416.8	424.2	424.7
165°	391.7	394.0	396.3	396.9	398.6	400.9	402.1	405.6	412.6	417.9	418.4
167.5°	398.0	399.1	400.1	400.4	401.9	403.8	404.8	407.1	411.7	415.2	415.4
170°	402.1	403.2	404.2	404.5	404.6	404.7	404.8	407.1	411.7	415.2	415.2
172.5°	404.2	404.5	404.7	404.8	404.8	404.8	404.8	406.6	410.2	413.0	412.8
175°	407.2	407.2	407.2	407.2	406.4	405.3	404.8	406.0	408.2	410.0	410.0
177.5°	407.2	407.2	407.2	407.2	406.6	405.8	405.3	406.2	408.1	409.4	409.2
180°	407.2	407.2	407.2	407.2	407.2	407.2	407.2	407.2	407.2	407.2	407.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1121.3	1121.3
2.5°	1197.0	1189.8
5°	1539.6	1546.7
7.5°	2073.2	2069.5
10°	2577.9	2610.3
12.5°	2945.7	2952.9
15°	3169.2	3183.6
17.5°	3255.7	3259.3
20°	3259.3	3252.1
22.5°	3219.7	3212.5
25°	3172.8	3169.2
27.5°	3129.5	3133.2
30°	3111.5	3122.3
32.5°	3111.5	3129.5
35°	3118.7	3136.7
37.5°	3115.1	3136.7
40°	3100.7	3125.9
42.5°	3061.0	3079.0
45°	2999.7	3021.4
47.5°	2920.4	2934.9
50°	2819.4	2833.9
52.5°	2693.3	2696.9
55°	2541.8	2556.3
57.5°	2379.6	2383.2
60°	2199.3	2210.1
62.5°	2008.2	2008.2
65°	1806.4	1813.5
67.5°	1597.2	1615.2
70°	1384.5	1388.1
72.5°	1175.3	1175.3
75°	959.0	962.7
77.5°	753.5	753.5
80°	558.9	562.4
82.5°	385.8	393.0
85°	241.6	241.6
87.5°	111.8	101.0
90°	10.4	10.4
92.5°	41.7	33.4
95°	145.0	120.0
97.5°	347.5	299.8
100°	500.7	443.9
102.5°	651.2	602.6
105°	843.3	817.2
107.5°	969.2	975.5
110°	1017.2	1044.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1021.4	1063.2
115°	994.3	1052.3
117.5°	936.9	1001.1
120°	890.6	953.0
122.5°	845.6	907.2
125°	781.2	838.0
127.5°	723.4	771.3
130°	689.4	733.6
132.5°	658.5	698.1
135°	616.1	650.2
137.5°	582.1	610.1
140°	558.8	584.9
142.5°	539.5	562.0
145°	510.5	527.5
147.5°	488.3	502.4
150°	474.3	485.7
152.5°	462.3	470.9
155°	448.5	454.3
157.5°	437.7	441.7
160°	431.2	433.4
162.5°	426.9	429.1
165°	420.8	423.1
167.5°	416.3	417.3
170°	415.2	415.2
172.5°	411.9	411.1
175°	410.0	410.0
177.5°	408.2	407.2
180°	407.2	407.2



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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	7.46	8.70	8.14	9.40	10.23	20.65	21.89	21.33	22.59	23.42
	3H	8.19	9.31	8.89	10.02	10.88	22.52	23.64	23.22	24.35	25.22
	4H	8.51	9.56	9.22	10.29	11.16	23.19	24.24	23.90	24.97	25.84
	6H	8.78	9.75	9.50	10.49	11.38	23.64	24.62	24.37	25.35	26.24
	8H	8.86	9.79	9.59	10.54	11.43	23.78	24.71	24.52	25.47	26.36
	12H	8.89	9.78	9.63	10.53	11.45	23.86	24.75	24.61	25.50	26.42
4H	2H	14.73	15.78	15.44	16.51	17.38	20.97	22.02	21.69	22.75	23.62
	3H	16.33	17.21	17.06	17.98	18.87	23.05	23.94	23.78	24.70	25.59
	4H	16.44	17.25	17.18	18.01	18.93	23.84	24.65	24.59	25.41	26.33
	6H	16.47	17.17	17.24	17.96	18.89	24.41	25.11	25.17	25.90	26.82
	8H	16.46	17.12	17.23	17.90	18.84	24.58	25.24	25.35	26.02	26.96
	12H	16.43	17.03	17.22	17.83	18.78	24.70	25.29	25.49	26.10	27.04
8H	4H	17.92	18.58	18.69	19.36	20.30	23.93	24.59	24.70	25.37	26.32
	6H	18.18	18.73	18.98	19.55	20.49	24.58	25.13	25.38	25.96	26.90
	8H	18.20	18.69	19.01	19.51	20.47	24.81	25.30	25.62	26.12	27.08
	12H	18.19	18.62	19.00	19.43	20.45	24.98	25.41	25.79	26.22	27.24
12H	4H	18.08	18.68	18.87	19.48	20.43	23.90	24.50	24.69	25.30	26.25
	6H	18.44	18.93	19.25	19.76	20.71	24.57	25.06	25.38	25.89	26.84
	8H	18.53	18.96	19.35	19.78	20.79	24.82	25.25	25.64	26.07	27.08