

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: P936943

Luminaire Tested: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

**Test Information**

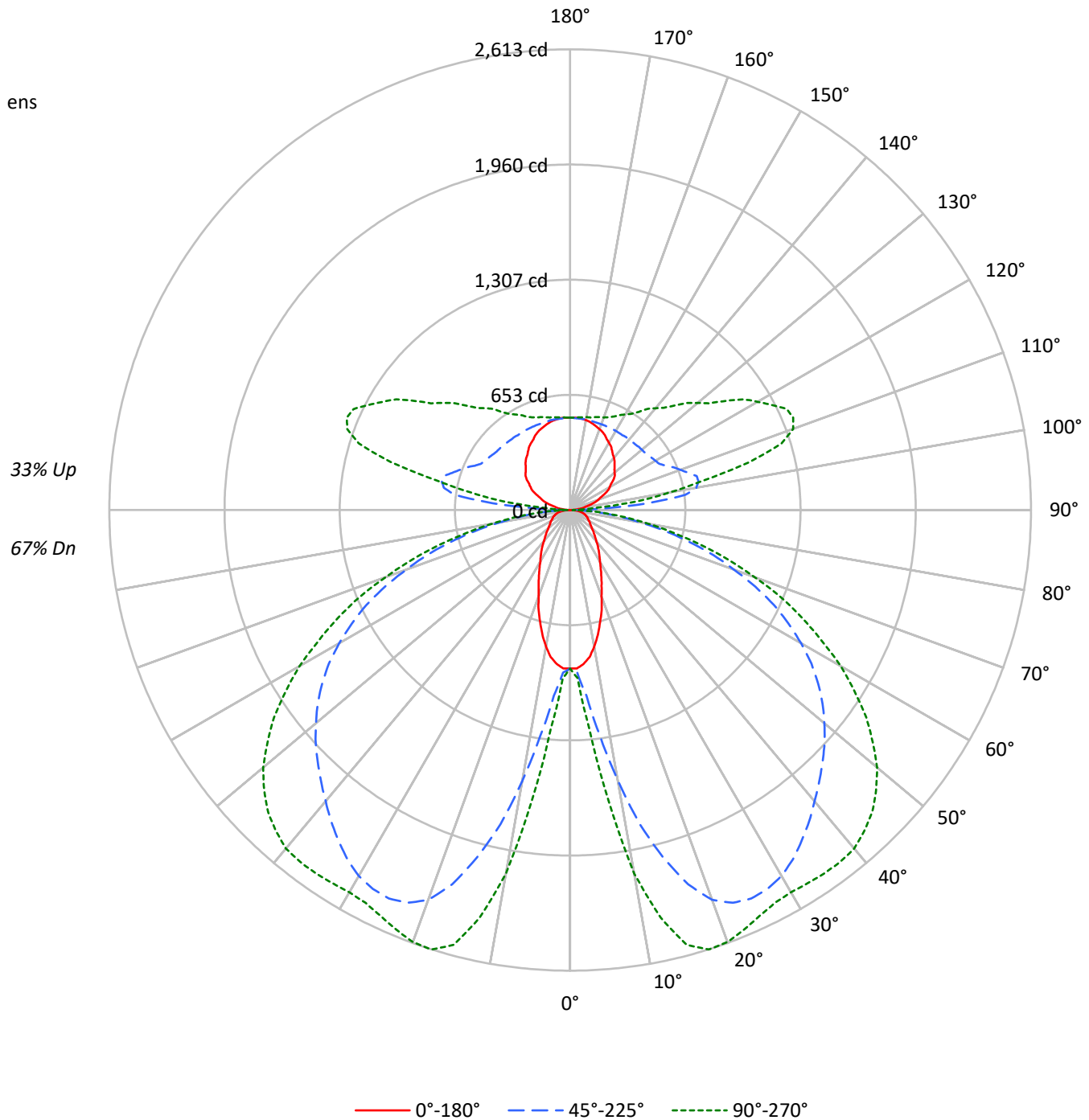
Test Method: LM-79-2019  
Report Number: P936943  
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-8-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10358.0 lumens  
Efficiency: N/A  
Efficacy: 92.5 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 (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





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									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	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°	4171	4171	4171
5°	4075	4821	5607
10°	3696	7028	9295
15°	3141	9181	11224
20°	2557	10640	11439
25°	2134	11135	11207
30°	1799	11204	11185
35°	1591	11019	11475
40°	1386	10777	11774
45°	1255	10600	11820
50°	1151	10440	11624
55°	1103	10207	11109
60°	1129	9759	10295
65°	1174	9078	9178
70°	1251	7916	7753
75°	1387	6455	6051
80°	1514	4476	4077
85°	1346	2376	2087

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 11820 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	1.1
10°-20°	515.4	5.0
20°-30°	901.6	8.7
30°-40°	1160.6	11.2
40°-50°	1296.3	12.5
50°-60°	1241.6	12.0
60°-70°	984.0	9.5
70°-80°	578.6	5.6
80°-90°	162.8	1.6
90°-100°	255.7	2.5
100°-110°	672.3	6.5
110°-120°	697.1	6.7
120°-130°	559.2	5.4
130°-140°	438.7	4.2
140°-150°	336.8	3.3
150°-160°	242.5	2.3
160°-170°	148.4	1.4
170°-180°	50.1	0.5
0°-30°	1533.3	14.8
0°-40°	2693.9	26.0
0°-60°	5231.8	50.5
0°-90°	6957.2	67.2
90°-120°	1625.1	15.7
90°-150°	2959.8	28.6
90°-180°	3401.0	32.8
0°-180°	10358.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	899	899	899	899	899	
5°	876	940	1058	1197	1240	81
15°	656	1211	2041	2475	2553	183
25°	419	1373	2431	2538	2541	193
35°	283	1312	2290	2420	2515	177
45°	194	1046	2024	2318	2423	150
55°	139	665	1717	1995	2050	126
65°	110	353	1275	1434	1454	109
75°	81	217	700	769	772	85
85°	29	66	174	191	194	31
90°	4	10	27	13	13	5
95°	34	132	440	227	155	38
105°	121	184	743	1128	1053	128
115°	215	261	595	1188	1356	212
125°	299	336	542	915	1080	266
135°	357	393	525	739	838	276
145°	414	440	518	630	680	259
155°	468	481	518	569	585	215
165°	504	511	518	538	545	142
175°	525	525	521	528	528	50
180°	525	525	525	525	525	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1
2.5°	899.1	899.1	904.9	907.8	913.5	916.4	922.2	928.0	945.3	948.3	954.0
5°	875.9	887.5	925.1	939.5	980.0	1034.9	1058.1	1095.7	1173.7	1196.8	1211.2
7.5°	841.2	867.3	959.8	982.9	1084.1	1228.7	1289.3	1370.3	1494.6	1555.3	1604.5
10°	786.3	841.2	1006.0	1060.9	1225.8	1445.4	1558.2	1670.9	1858.8	1942.7	1974.5
12.5°	725.6	815.3	1055.2	1130.4	1367.4	1688.3	1824.2	1948.4	2162.4	2275.1	2292.5
15°	656.2	777.7	1101.4	1211.2	1517.7	1890.6	2040.9	2194.2	2393.7	2474.6	2494.8
17.5°	595.5	748.7	1144.8	1260.4	1633.3	2072.8	2225.9	2353.2	2515.1	2570.0	2584.4
20°	520.3	702.5	1173.7	1324.0	1754.8	2205.8	2353.2	2451.4	2561.4	2596.0	2601.8
22.5°	465.4	653.3	1191.1	1347.1	1835.7	2286.7	2411.0	2489.0	2564.2	2575.8	2578.7
25°	419.2	598.4	1188.2	1373.2	1905.1	2335.9	2431.3	2489.0	2532.4	2538.2	2538.2
27.5°	375.8	537.7	1176.6	1379.0	1957.1	2347.4	2422.6	2463.0	2483.3	2494.8	2494.8
30°	338.2	479.8	1147.7	1367.4	1980.3	2335.9	2396.5	2416.8	2437.0	2454.3	2463.0
32.5°	309.4	424.9	1104.3	1344.2	1983.1	2306.9	2350.3	2361.8	2390.8	2431.3	2445.7
35°	283.3	370.0	1055.2	1312.5	1965.8	2260.7	2289.6	2301.1	2358.9	2419.7	2439.9
37.5°	257.3	329.5	991.6	1257.5	1939.8	2205.8	2225.9	2246.2	2335.9	2408.1	2431.3
40°	231.3	294.8	916.4	1196.8	1899.3	2139.2	2156.6	2188.4	2306.9	2390.8	2413.9
42.5°	211.1	266.0	835.5	1133.3	1847.3	2064.1	2090.1	2136.3	2272.2	2361.8	2387.9
45°	193.7	237.0	748.7	1046.5	1780.8	1986.0	2023.6	2087.2	2231.8	2318.5	2341.6
47.5°	176.4	216.8	659.1	956.9	1708.5	1908.0	1957.1	2029.4	2176.8	2260.7	2280.9
50°	161.9	196.6	569.5	861.5	1630.4	1824.2	1882.0	1957.1	2107.5	2185.5	2211.5
52.5°	150.3	179.2	485.7	766.1	1540.8	1737.4	1803.9	1882.0	2023.6	2098.8	2116.1
55°	138.8	164.8	413.4	664.9	1448.3	1644.9	1717.2	1792.4	1931.1	1994.7	2006.3
57.5°	133.0	153.2	352.7	569.5	1350.0	1540.8	1621.8	1691.2	1821.3	1870.4	1882.0
60°	124.3	144.5	306.5	488.6	1243.1	1442.5	1511.9	1581.3	1691.2	1731.7	1740.3
62.5°	115.6	138.8	271.8	410.5	1133.3	1326.9	1396.3	1459.9	1552.4	1581.3	1592.9
65°	109.8	133.0	245.7	352.7	1020.5	1205.5	1274.9	1329.8	1405.0	1433.9	1439.6
67.5°	104.0	127.2	225.5	303.6	907.8	1084.1	1136.1	1188.2	1246.0	1274.9	1277.8
70°	95.4	121.5	208.2	268.9	792.1	945.3	988.7	1043.6	1089.9	1104.3	1113.0
72.5°	89.6	112.7	196.6	242.8	673.6	812.4	852.8	884.6	925.1	939.5	939.5
75°	81.0	101.2	185.0	216.8	552.2	664.9	699.6	731.4	763.2	769.0	760.3
77.5°	72.3	89.6	159.0	182.1	430.7	526.1	555.0	572.4	598.4	604.2	607.1
80°	60.7	78.1	124.3	141.6	312.2	387.3	407.6	422.1	445.2	445.2	451.0
82.5°	46.3	60.7	89.6	101.2	211.1	266.0	283.3	291.9	306.5	306.5	306.5
85°	28.9	37.6	57.8	66.5	127.2	161.9	173.5	176.4	187.9	190.8	190.8
87.5°	14.4	20.2	37.6	40.5	66.5	83.9	83.9	89.6	89.6	86.7	83.9
90°	3.5	6.3	9.1	9.8	15.5	23.0	26.7	23.7	17.9	13.4	13.4
92.5°	14.1	38.0	62.0	68.0	95.6	132.3	150.7	132.0	94.8	66.9	64.2
95°	33.8	77.6	121.5	132.4	235.1	372.0	440.5	393.1	298.3	227.1	219.1
97.5°	58.4	97.0	135.7	145.4	316.6	544.9	659.1	629.2	569.2	524.3	508.9
100°	77.5	112.5	147.5	156.3	346.3	599.7	726.4	728.6	732.9	736.2	717.9
102.5°	93.7	126.4	159.0	167.2	359.9	616.9	745.4	783.6	859.9	917.2	901.5
105°	121.1	148.8	176.5	183.5	370.1	618.9	743.3	828.8	1000.1	1128.5	1120.0
107.5°	149.3	175.1	200.9	207.4	371.9	591.3	701.0	820.4	1059.2	1238.3	1240.4
110°	168.3	191.6	215.0	220.8	369.2	566.9	665.8	799.3	1066.2	1266.4	1275.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	187.0	209.2	231.4	236.9	369.2	545.6	633.8	770.3	1043.6	1248.5	1262.0
115°	215.2	235.7	256.2	261.3	372.7	521.2	595.4	727.0	990.2	1187.6	1206.2
117.5°	242.9	261.5	280.2	284.9	379.6	505.8	568.9	687.7	925.3	1103.4	1124.1
120°	259.1	276.7	294.2	298.6	385.2	500.7	558.4	666.9	883.9	1046.7	1066.8
122.5°	274.9	292.6	310.3	314.7	393.2	498.0	550.3	648.0	843.5	990.1	1009.9
125°	299.3	315.3	331.5	335.5	404.2	495.7	541.5	624.5	790.6	915.1	933.4
127.5°	319.0	335.2	351.5	355.6	415.1	494.5	534.1	605.4	748.0	854.9	870.3
130°	329.5	347.0	364.6	369.0	423.0	495.2	531.3	594.7	721.7	816.8	831.1
132.5°	340.5	358.0	375.6	379.9	429.5	495.7	528.9	585.7	699.3	784.4	797.2
135°	356.7	372.7	388.5	392.6	436.5	495.2	524.6	572.2	667.3	738.6	749.7
137.5°	373.3	389.1	404.9	408.8	447.1	498.3	523.9	564.2	644.6	704.9	713.9
140°	386.9	401.5	416.0	419.7	453.6	498.8	521.4	556.2	625.6	677.8	686.1
142.5°	397.5	410.9	424.4	427.7	459.0	500.6	521.4	551.9	613.0	658.8	666.0
145°	413.7	425.4	437.2	440.1	466.1	500.7	517.9	542.9	592.9	630.3	635.7
147.5°	429.9	441.3	452.8	455.6	476.3	504.1	517.9	537.6	576.8	606.3	610.8
150°	440.5	450.8	461.1	463.7	481.8	505.9	517.9	534.5	567.7	592.6	596.3
152.5°	451.4	459.3	467.0	469.0	485.3	507.1	517.9	532.1	560.4	581.7	584.5
155°	467.5	473.4	479.2	480.6	493.1	509.7	517.9	529.2	551.7	568.6	570.5
157.5°	479.5	485.1	490.8	492.2	500.8	512.2	517.9	526.7	544.2	557.3	558.6
160°	487.6	492.1	496.4	497.5	504.4	513.4	517.9	525.5	540.4	551.7	552.4
162.5°	495.7	499.1	502.3	503.2	508.1	514.7	517.9	524.3	537.0	546.5	547.2
165°	504.5	507.5	510.4	511.2	513.4	516.4	517.9	522.5	531.5	538.4	539.1
167.5°	512.6	514.0	515.5	515.8	517.7	520.2	521.4	524.4	530.4	534.9	535.2
170°	517.9	519.3	520.8	521.1	521.2	521.4	521.4	524.4	530.4	534.9	534.9
172.5°	520.8	521.1	521.4	521.4	521.4	521.4	521.4	523.8	528.5	532.0	531.8
175°	524.6	524.6	524.6	524.6	523.6	522.1	521.4	522.9	525.9	528.1	528.1
177.5°	524.6	524.6	524.6	524.6	523.8	522.6	522.1	523.3	525.6	527.4	527.1
180°	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	899.1	899.1
2.5°	959.8	954.0
5°	1234.4	1240.2
7.5°	1662.2	1659.4
10°	2067.0	2093.0
12.5°	2361.8	2367.6
15°	2541.1	2552.6
17.5°	2610.5	2613.4
20°	2613.4	2607.6
22.5°	2581.6	2575.8
25°	2544.0	2541.1
27.5°	2509.3	2512.2
30°	2494.8	2503.5
32.5°	2494.8	2509.3
35°	2500.6	2515.1
37.5°	2497.7	2515.1
40°	2486.2	2506.4
42.5°	2454.3	2468.9
45°	2405.2	2422.6
47.5°	2341.6	2353.2
50°	2260.7	2272.2
52.5°	2159.5	2162.4
55°	2038.0	2049.7
57.5°	1908.0	1910.9
60°	1763.4	1772.1
62.5°	1610.2	1610.2
65°	1448.3	1454.2
67.5°	1280.7	1295.1
70°	1110.1	1113.0
72.5°	942.4	942.4
75°	769.0	771.9
77.5°	604.2	604.2
80°	448.1	451.0
82.5°	309.4	315.1
85°	193.7	193.7
87.5°	89.6	81.0
90°	13.4	13.4
92.5°	53.6	43.0
95°	186.8	154.6
97.5°	447.6	386.2
100°	644.9	571.8
102.5°	838.9	776.3
105°	1086.4	1052.7
107.5°	1248.5	1256.6
110°	1310.2	1345.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1315.8	1369.6
115°	1280.9	1355.5
117.5°	1207.0	1289.7
120°	1147.3	1227.7
122.5°	1089.3	1168.6
125°	1006.4	1079.5
127.5°	931.9	993.6
130°	888.0	945.0
132.5°	848.2	899.2
135°	793.7	837.6
137.5°	749.9	785.9
140°	719.8	753.4
142.5°	694.9	723.9
145°	657.7	679.5
147.5°	629.0	647.2
150°	611.0	625.6
152.5°	595.6	606.7
155°	577.8	585.2
157.5°	563.8	568.9
160°	555.4	558.4
162.5°	550.0	552.8
165°	542.0	545.0
167.5°	536.4	537.7
170°	534.9	534.9
172.5°	530.7	529.6
175°	528.1	528.1
177.5°	525.9	524.6
180°	524.6	524.6



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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	7.40	8.49	8.18	9.31	10.31	20.57	21.67	21.36	22.49	23.48
	3H	8.12	9.11	8.92	9.93	10.96	22.43	23.42	23.23	24.24	25.27
	4H	8.43	9.36	9.24	10.19	11.23	23.09	24.02	23.90	24.85	25.89
	6H	8.69	9.55	9.52	10.39	11.45	23.53	24.39	24.36	25.23	26.29
	8H	8.76	9.59	9.60	10.45	11.50	23.66	24.48	24.49	25.34	26.39
	12H	8.79	9.58	9.63	10.43	11.51	23.73	24.52	24.58	25.37	26.45
4H	2H	14.64	15.57	15.46	16.41	17.44	20.88	21.81	21.69	22.64	23.68
	3H	16.23	17.01	17.06	17.88	18.93	22.94	23.73	23.77	24.59	25.65
	4H	16.33	17.05	17.18	17.91	18.99	23.72	24.44	24.57	25.30	26.38
	6H	16.36	16.98	17.22	17.87	18.95	24.27	24.89	25.13	25.78	26.87
	8H	16.34	16.92	17.21	17.80	18.90	24.44	25.02	25.31	25.91	27.01
	12H	16.31	16.83	17.19	17.74	18.84	24.55	25.07	25.43	25.97	27.08
8H	4H	17.80	18.38	18.66	19.26	20.36	23.80	24.38	24.67	25.26	26.36
	6H	18.05	18.53	18.94	19.46	20.56	24.44	24.92	25.33	25.85	26.95
	8H	18.07	18.50	18.98	19.42	20.53	24.66	25.09	25.57	26.01	27.13
	12H	18.05	18.43	18.96	19.34	20.51	24.82	25.20	25.73	26.11	27.28
12H	4H	17.95	18.48	18.84	19.38	20.49	23.76	24.29	24.65	25.19	26.30
	6H	18.31	18.74	19.22	19.66	20.78	24.43	24.86	25.33	25.77	26.89
	8H	18.39	18.77	19.30	19.68	20.85	24.67	25.05	25.58	25.96	27.13