

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: P936993

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

**Test Information**

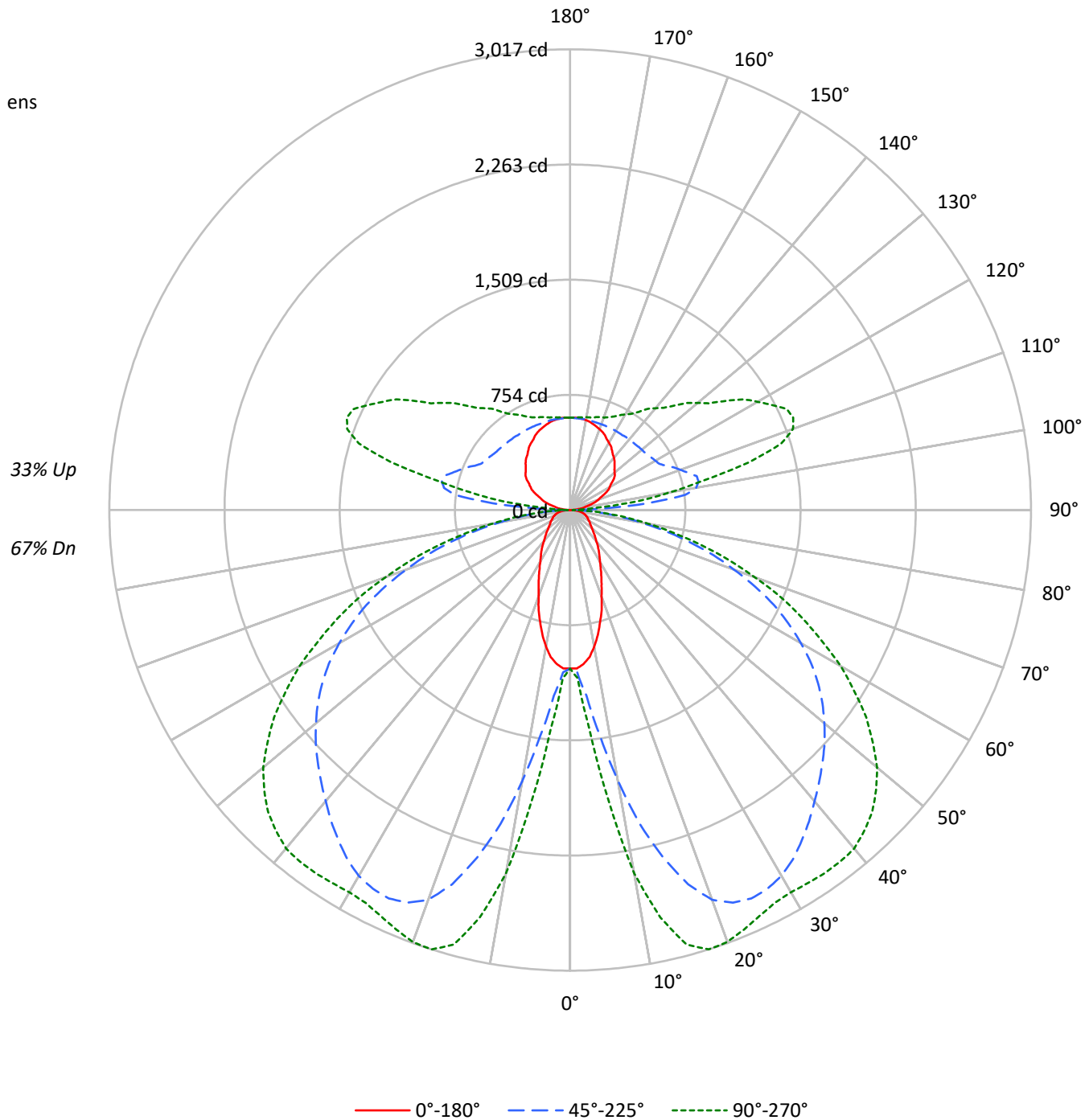
Test Method: LM-79-2019  
Report Number: P936993  
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-8-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11957.2 lumens  
Efficiency: N/A  
Efficacy: 106.8 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-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	
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°	4815	4815	4815
5°	4704	5566	6473
10°	4267	8113	10731
15°	3626	10599	12957
20°	2952	12283	13205
25°	2463	12853	12937
30°	2077	12934	12913
35°	1837	12720	13246
40°	1600	12441	13592
45°	1449	12236	13645
50°	1329	12053	13419
55°	1273	11783	12824
60°	1303	11265	11885
65°	1356	10479	10595
70°	1444	9138	8950
75°	1601	7451	6984
80°	1749	5167	4706
85°	1551	2742	2409

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13645 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.3	1.1
10°-20°	595.0	5.0
20°-30°	1040.8	8.7
30°-40°	1339.8	11.2
40°-50°	1496.5	12.5
50°-60°	1433.3	12.0
60°-70°	1135.9	9.5
70°-80°	667.9	5.6
80°-90°	187.9	1.6
90°-100°	295.2	2.5
100°-110°	776.1	6.5
110°-120°	804.7	6.7
120°-130°	645.5	5.4
130°-140°	506.5	4.2
140°-150°	388.8	3.3
150°-160°	280.0	2.3
160°-170°	171.3	1.4
170°-180°	57.9	0.5
0°-30°	1770.0	14.8
0°-40°	3109.8	26.0
0°-60°	6039.6	50.5
0°-90°	8031.3	67.2
90°-120°	1876.0	15.7
90°-150°	3416.8	28.6
90°-180°	3926.0	32.8
0°-180°	11957.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1011	1085	1222	1382	1432	93
15°	758	1398	2356	2857	2947	211
25°	484	1585	2807	2930	2933	223
35°	327	1515	2643	2793	2903	204
45°	224	1208	2336	2676	2797	173
55°	160	768	1982	2303	2366	146
65°	127	407	1472	1655	1679	126
75°	94	250	808	888	891	98
85°	33	77	200	220	224	35
90°	4	11	31	16	16	6
95°	39	153	508	262	178	43
105°	140	212	858	1303	1215	148
115°	248	302	687	1371	1565	245
125°	346	387	625	1056	1246	307
135°	412	453	606	853	967	319
145°	478	508	598	728	784	299
155°	540	555	598	656	676	248
165°	582	590	598	622	629	164
175°	606	606	602	610	610	57
180°	606	606	606	606	606	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9
2.5°	1037.9	1037.9	1044.6	1047.9	1054.5	1057.9	1064.6	1071.3	1091.3	1094.7	1101.3
5°	1011.1	1024.6	1067.9	1084.6	1131.3	1194.7	1221.5	1264.8	1354.9	1381.6	1398.2
7.5°	971.1	1001.2	1108.0	1134.7	1251.4	1418.4	1488.4	1581.8	1725.3	1795.4	1852.2
10°	907.7	971.1	1161.3	1224.7	1415.0	1668.6	1798.8	1928.9	2145.8	2242.7	2279.3
12.5°	837.6	941.1	1218.1	1304.9	1578.5	1948.9	2105.8	2249.3	2496.3	2626.4	2646.4
15°	757.5	897.8	1271.4	1398.2	1752.0	2182.5	2356.0	2532.9	2763.3	2856.6	2880.0
17.5°	687.4	864.3	1321.5	1455.0	1885.5	2392.8	2569.6	2716.5	2903.4	2966.8	2983.4
20°	600.7	811.0	1354.9	1528.4	2025.7	2546.3	2716.5	2829.9	2956.8	2996.8	3003.5
22.5°	537.3	754.2	1375.0	1555.1	2119.1	2639.7	2783.3	2873.3	2960.1	2973.5	2976.8
25°	483.9	690.8	1371.6	1585.2	2199.3	2696.5	2806.6	2873.3	2923.4	2930.1	2930.1
27.5°	433.8	620.7	1358.2	1591.9	2259.3	2709.8	2796.6	2843.3	2866.7	2880.0	2880.0
30°	390.5	553.9	1324.9	1578.5	2286.0	2696.5	2766.5	2789.9	2813.3	2833.3	2843.3
32.5°	357.1	490.5	1274.8	1551.8	2289.3	2663.1	2713.2	2726.5	2759.9	2806.6	2823.3
35°	327.1	427.1	1218.1	1515.1	2269.3	2609.7	2643.1	2656.4	2723.1	2793.2	2816.6
37.5°	297.0	380.4	1144.6	1451.7	2239.3	2546.3	2569.6	2593.0	2696.5	2779.9	2806.6
40°	267.0	340.4	1057.9	1381.6	2192.6	2469.5	2489.6	2526.2	2663.1	2759.9	2786.5
42.5°	243.6	307.0	964.5	1308.2	2132.5	2382.8	2412.8	2466.2	2623.1	2726.5	2756.6
45°	223.6	273.6	864.3	1208.0	2055.7	2292.6	2336.0	2409.5	2576.3	2676.5	2703.1
47.5°	203.6	250.2	760.9	1104.6	1972.3	2202.5	2259.3	2342.7	2512.9	2609.7	2633.1
50°	186.8	227.0	657.5	994.5	1882.2	2105.8	2172.6	2259.3	2432.9	2523.0	2553.0
52.5°	173.5	206.9	560.6	884.3	1778.7	2005.6	2082.4	2172.6	2336.0	2422.8	2442.8
55°	160.2	190.2	477.2	767.6	1672.0	1898.8	1982.4	2069.1	2229.2	2302.7	2316.0
57.5°	153.5	176.9	407.1	657.5	1558.5	1778.7	1872.2	1952.3	2102.4	2159.1	2172.6
60°	143.5	166.8	353.8	564.0	1435.0	1665.3	1745.3	1825.5	1952.3	1999.0	2009.0
62.5°	133.5	160.2	313.7	473.9	1308.2	1531.8	1611.9	1685.3	1792.1	1825.5	1838.8
65°	126.8	153.5	283.7	407.1	1178.1	1391.6	1471.7	1535.1	1621.9	1655.3	1661.9
67.5°	120.1	146.8	260.3	350.4	1047.9	1251.4	1311.5	1371.6	1438.4	1471.7	1475.1
70°	110.1	140.2	240.3	310.4	914.4	1091.3	1141.3	1204.7	1258.1	1274.8	1284.9
72.5°	103.4	130.2	227.0	280.3	777.6	937.8	984.5	1021.2	1067.9	1084.6	1084.6
75°	93.5	116.8	213.6	250.2	637.4	767.6	807.6	844.3	881.0	887.7	877.7
77.5°	83.4	103.4	183.6	210.2	497.2	607.4	640.7	660.8	690.8	697.5	700.8
80°	70.1	90.1	143.5	163.5	360.4	447.2	470.5	487.3	513.9	513.9	520.6
82.5°	53.4	70.1	103.4	116.8	243.6	307.0	327.1	337.0	353.8	353.8	353.8
85°	33.3	43.4	66.8	76.7	146.8	186.8	200.3	203.6	216.9	220.3	220.3
87.5°	16.7	23.4	43.4	46.7	76.7	96.8	96.8	103.4	103.4	100.1	96.8
90°	4.0	7.3	10.6	11.3	17.8	26.5	30.9	27.4	20.6	15.5	15.5
92.5°	16.3	43.9	71.6	78.5	110.3	152.7	173.9	152.4	109.4	77.2	74.1
95°	39.0	89.6	140.2	152.8	271.3	429.4	508.5	453.8	344.3	262.2	252.9
97.5°	67.4	112.0	156.7	167.8	365.5	629.1	760.9	726.3	657.1	605.2	587.5
100°	89.4	129.9	170.3	180.4	399.8	692.3	838.5	841.1	846.1	849.8	828.7
102.5°	108.2	145.9	183.6	193.1	415.5	712.2	860.5	904.6	992.7	1058.8	1040.7
105°	139.8	171.8	203.8	211.8	427.2	714.5	858.0	956.8	1154.5	1302.7	1292.9
107.5°	172.4	202.1	231.9	239.4	429.3	682.6	809.2	947.1	1222.7	1429.5	1431.9
110°	194.2	221.2	248.2	254.9	426.1	654.4	768.6	922.7	1230.8	1461.9	1472.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	215.8	241.5	267.1	273.5	426.2	629.9	731.6	889.3	1204.7	1441.2	1456.8
115°	248.4	272.0	295.7	301.6	430.2	601.7	687.3	839.3	1143.1	1370.9	1392.4
117.5°	280.4	301.9	323.4	328.8	438.2	583.9	656.8	793.9	1068.1	1273.8	1297.7
120°	299.2	319.4	339.7	344.7	444.7	578.0	644.6	769.9	1020.4	1208.3	1231.5
122.5°	317.4	337.8	358.2	363.3	454.0	574.8	635.3	748.1	973.8	1143.0	1165.8
125°	345.5	364.0	382.7	387.3	466.6	572.3	625.1	721.0	912.6	1056.4	1077.5
127.5°	368.3	387.0	405.7	410.5	479.2	570.8	616.5	698.9	863.4	986.9	1004.6
130°	380.4	400.6	420.9	426.0	488.4	571.7	613.3	686.6	833.1	942.9	959.4
132.5°	393.0	413.2	433.5	438.6	495.9	572.3	610.5	676.1	807.2	905.5	920.2
135°	411.8	430.2	448.5	453.2	503.9	571.7	605.6	660.5	770.4	852.7	865.4
137.5°	430.9	449.1	467.4	471.9	516.2	575.2	604.8	651.3	744.1	813.7	824.1
140°	446.7	463.5	480.3	484.5	523.7	575.8	602.0	642.1	722.2	782.4	792.1
142.5°	458.9	474.4	489.9	493.8	529.9	577.9	602.0	637.2	707.7	760.5	768.9
145°	477.6	491.1	504.7	508.1	538.1	578.0	597.9	626.7	684.4	727.6	733.9
147.5°	496.3	509.5	522.7	525.9	549.9	581.9	597.9	620.6	665.8	699.9	705.1
150°	508.5	520.4	532.3	535.3	556.2	584.0	597.9	617.0	655.4	684.1	688.3
152.5°	521.1	530.2	539.1	541.4	560.2	585.4	597.9	614.3	646.9	671.5	674.7
155°	539.7	546.4	553.1	554.8	569.2	588.3	597.9	610.9	636.9	656.4	658.5
157.5°	553.5	560.0	566.6	568.2	578.1	591.3	597.9	608.0	628.2	643.4	644.8
160°	562.9	568.0	573.1	574.3	582.2	592.7	597.9	606.6	623.8	636.9	637.7
162.5°	572.3	576.1	579.9	580.9	586.6	594.2	597.9	605.2	619.9	630.8	631.6
165°	582.4	585.9	589.2	590.1	592.7	596.1	597.9	603.1	613.6	621.5	622.4
167.5°	591.8	593.4	595.1	595.4	597.6	600.5	602.0	605.4	612.3	617.4	617.8
170°	597.9	599.5	601.2	601.6	601.7	601.9	602.0	605.4	612.3	617.4	617.4
172.5°	601.2	601.6	601.9	602.0	602.0	602.0	602.0	604.7	610.1	614.2	613.9
175°	605.6	605.6	605.6	605.6	604.4	602.7	602.0	603.6	607.1	609.6	609.6
177.5°	605.6	605.6	605.6	605.6	604.6	603.3	602.7	604.1	606.8	608.9	608.5
180°	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1037.9	1037.9
2.5°	1108.0	1101.3
5°	1425.0	1431.7
7.5°	1918.9	1915.6
10°	2386.1	2416.2
12.5°	2726.5	2733.2
15°	2933.4	2946.8
17.5°	3013.5	3016.9
20°	3016.9	3010.2
22.5°	2980.2	2973.5
25°	2936.8	2933.4
27.5°	2896.7	2900.0
30°	2880.0	2890.1
32.5°	2880.0	2896.7
35°	2886.7	2903.4
37.5°	2883.4	2903.4
40°	2870.0	2893.4
42.5°	2833.3	2850.0
45°	2776.6	2796.6
47.5°	2703.1	2716.5
50°	2609.7	2623.1
52.5°	2492.9	2496.3
55°	2352.7	2366.1
57.5°	2202.5	2205.9
60°	2035.7	2045.8
62.5°	1858.8	1858.8
65°	1672.0	1678.7
67.5°	1478.4	1495.1
70°	1281.5	1284.9
72.5°	1088.0	1088.0
75°	887.7	891.0
77.5°	697.5	697.5
80°	517.3	520.6
82.5°	357.1	363.7
85°	223.6	223.6
87.5°	103.4	93.5
90°	15.5	15.5
92.5°	61.8	49.6
95°	215.6	178.5
97.5°	516.7	445.9
100°	744.4	660.0
102.5°	968.4	896.2
105°	1254.1	1215.2
107.5°	1441.2	1450.6
110°	1512.5	1553.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1518.9	1581.1
115°	1478.6	1564.8
117.5°	1393.3	1488.9
120°	1324.4	1417.3
122.5°	1257.4	1349.0
125°	1161.8	1246.2
127.5°	1075.8	1147.0
130°	1025.1	1090.9
132.5°	979.2	1038.1
135°	916.2	967.0
137.5°	865.7	907.2
140°	830.9	869.8
142.5°	802.2	835.6
145°	759.2	784.5
147.5°	726.1	747.1
150°	705.3	722.2
152.5°	687.5	700.4
155°	667.0	675.5
157.5°	650.9	656.8
160°	641.2	644.6
162.5°	634.9	638.1
165°	625.7	629.2
167.5°	619.2	620.7
170°	617.4	617.4
172.5°	612.6	611.3
175°	609.6	609.6
177.5°	607.1	605.6
180°	605.6	605.6



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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	7.89	8.99	8.68	9.80	10.80	21.07	22.17	21.86	22.98	23.98
	3H	8.62	9.60	9.41	10.43	11.46	22.93	23.92	23.73	24.74	25.77
	4H	8.92	9.86	9.74	10.69	11.73	23.58	24.52	24.40	25.35	26.39
	6H	9.19	10.05	10.02	10.89	11.95	24.03	24.89	24.86	25.73	26.79
	8H	9.26	10.09	10.10	10.95	12.00	24.16	24.98	24.99	25.84	26.89
	12H	9.29	10.08	10.13	10.93	12.01	24.23	25.02	25.08	25.87	26.95
4H	2H	15.14	16.07	15.96	16.90	17.94	21.37	22.31	22.19	23.14	24.18
	3H	16.73	17.51	17.56	18.38	19.43	23.44	24.23	24.27	25.09	26.15
	4H	16.83	17.55	17.68	18.41	19.49	24.22	24.93	25.06	25.80	26.88
	6H	16.86	17.48	17.72	18.36	19.45	24.77	25.39	25.63	26.28	27.37
	8H	16.84	17.42	17.70	18.30	19.40	24.94	25.52	25.81	26.40	27.50
	12H	16.81	17.33	17.69	18.23	19.34	25.05	25.57	25.93	26.47	27.58
8H	4H	18.30	18.88	19.16	19.76	20.86	24.30	24.88	25.16	25.76	26.86
	6H	18.55	19.03	19.44	19.96	21.06	24.94	25.42	25.83	26.35	27.45
	8H	18.57	19.00	19.47	19.92	21.03	25.16	25.59	26.07	26.51	27.63
	12H	18.55	18.93	19.46	19.84	21.01	25.32	25.70	26.23	26.61	27.78
12H	4H	18.45	18.98	19.34	19.88	20.98	24.26	24.79	25.15	25.69	26.80
	6H	18.81	19.24	19.71	20.16	21.27	24.93	25.36	25.83	26.27	27.39
	8H	18.89	19.27	19.80	20.18	21.35	25.17	25.55	26.08	26.46	27.62