

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: P936920

Luminaire Tested: SQ4-FB-050U-125D-840-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936920
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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

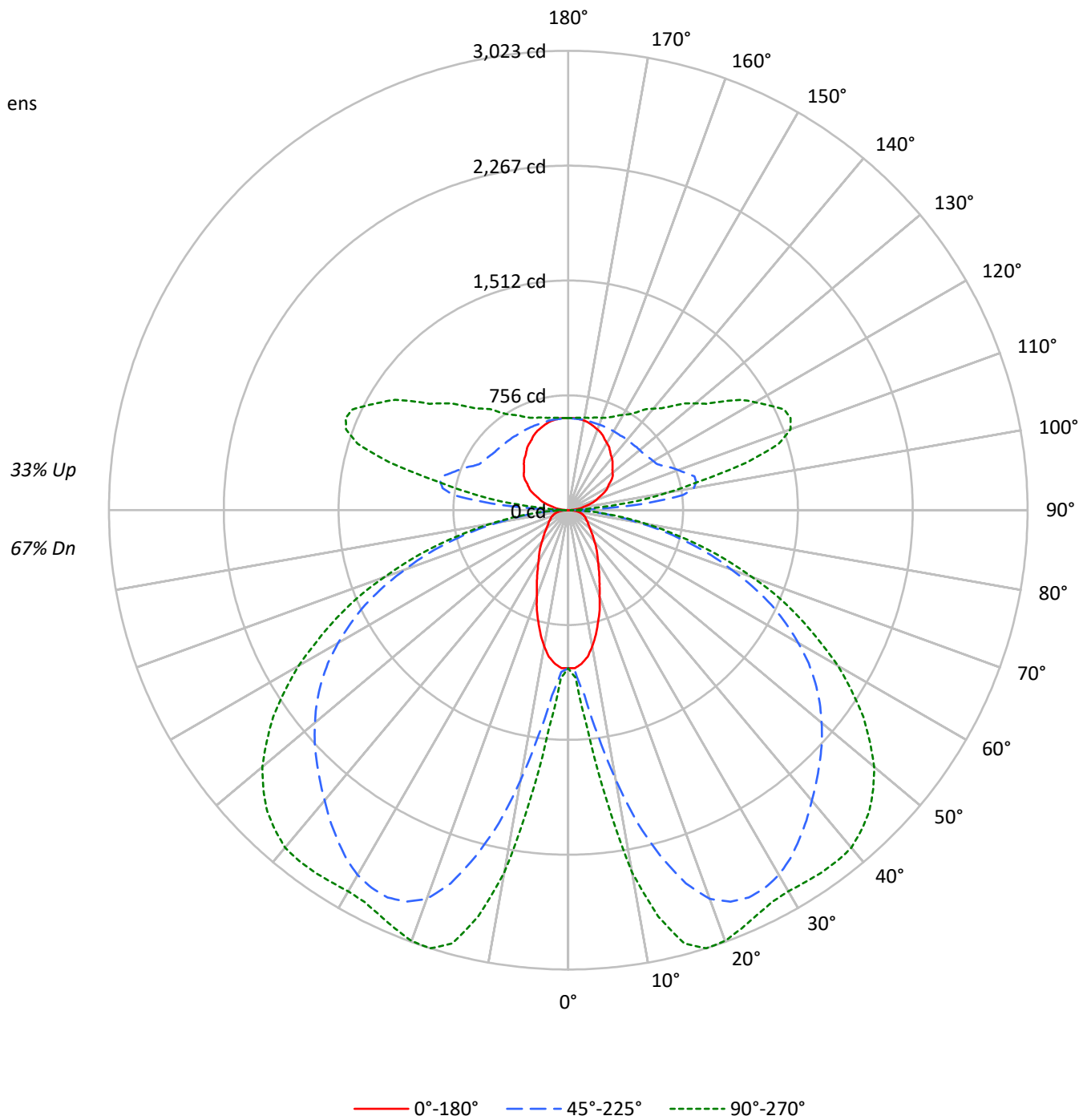
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11981.5 lumens
Efficiency: N/A
Efficacy: 107.0 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_{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





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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	0
RCR																					
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4825	4825	4825
5°	4714	5577	6486
10°	4276	8129	10752
15°	3634	10621	12983
20°	2958	12308	13232
25°	2468	12879	12963
30°	2081	12961	12939
35°	1840	12745	13273
40°	1604	12466	13619
45°	1452	12261	13672
50°	1331	12077	13446
55°	1276	11807	12850
60°	1306	11288	11909
65°	1359	10500	10616
70°	1448	9157	8969
75°	1605	7467	6999
80°	1751	5178	4716
85°	1556	2748	2414

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13672 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.5	1.1
10°-20°	596.2	5.0
20°-30°	1042.9	8.7
30°-40°	1342.5	11.2
40°-50°	1499.5	12.5
50°-60°	1436.2	12.0
60°-70°	1138.2	9.5
70°-80°	669.3	5.6
80°-90°	188.3	1.6
90°-100°	295.8	2.5
100°-110°	777.7	6.5
110°-120°	806.4	6.7
120°-130°	646.8	5.4
130°-140°	507.5	4.2
140°-150°	389.5	3.3
150°-160°	280.5	2.3
160°-170°	171.6	1.4
170°-180°	58.0	0.5
0°-30°	1773.6	14.8
0°-40°	3116.1	26.0
0°-60°	6051.9	50.5
0°-90°	8047.6	67.2
90°-120°	1879.9	15.7
90°-150°	3423.7	28.6
90°-180°	3934.0	32.8
0°-180°	11981.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1040	1040	1040	1040	1040	
5°	1013	1087	1224	1384	1435	94
15°	759	1401	2361	2862	2953	211
25°	485	1588	2812	2936	2939	223
35°	328	1518	2648	2799	2909	205
45°	224	1210	2341	2682	2802	173
55°	161	769	1986	2307	2371	146
65°	127	408	1475	1659	1682	126
75°	94	251	809	890	893	98
85°	33	77	201	221	224	35
90°	4	11	31	16	16	6
95°	39	153	510	263	179	43
105°	140	212	860	1305	1218	149
115°	249	302	689	1374	1568	246
125°	346	388	626	1058	1249	307
135°	413	454	607	854	969	319
145°	479	509	599	729	786	300
155°	541	556	599	658	677	249
165°	584	591	599	623	630	165
175°	607	607	603	611	611	58
180°	607	607	607	607	607	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1040.0	1040.0	1040.0	1040.0	1040.0	1040.0	1040.0	1040.0	1040.0	1040.0	1040.0
2.5°	1040.0	1040.0	1046.7	1050.0	1056.7	1060.0	1066.7	1073.5	1093.5	1096.9	1103.5
5°	1013.2	1026.6	1070.1	1086.8	1133.6	1197.2	1223.9	1267.4	1357.6	1384.4	1401.1
7.5°	973.1	1003.2	1110.2	1137.0	1254.0	1421.2	1491.4	1585.0	1728.8	1799.0	1856.0
10°	909.6	973.1	1163.7	1227.2	1417.9	1672.0	1802.4	1932.8	2150.2	2247.2	2284.0
12.5°	839.3	943.0	1220.6	1307.5	1581.7	1952.9	2110.1	2253.8	2501.3	2631.7	2651.8
15°	759.1	899.6	1274.0	1401.1	1755.6	2186.9	2360.8	2538.1	2768.9	2862.4	2885.8
17.5°	688.8	866.1	1324.2	1458.0	1889.4	2397.7	2574.8	2722.0	2909.3	2972.8	2989.5
20°	601.9	812.6	1357.6	1531.5	2029.8	2551.5	2722.0	2835.7	2962.8	3002.9	3009.5
22.5°	538.4	755.7	1377.8	1558.3	2123.4	2645.1	2788.9	2879.1	2966.1	2979.5	2982.9
25°	484.9	692.2	1374.4	1588.4	2203.7	2702.0	2812.3	2879.1	2929.3	2936.0	2936.0
27.5°	434.7	621.9	1361.0	1595.1	2263.9	2715.3	2802.3	2849.1	2872.5	2885.8	2885.8
30°	391.2	555.1	1327.6	1581.7	2290.7	2702.0	2772.1	2795.5	2819.0	2839.0	2849.1
32.5°	357.9	491.5	1277.4	1554.9	2293.9	2668.5	2718.7	2732.0	2765.5	2812.3	2829.0
35°	327.7	428.0	1220.6	1518.2	2273.9	2615.0	2648.4	2661.8	2728.7	2798.9	2822.3
37.5°	297.6	381.2	1147.0	1454.6	2243.8	2551.5	2574.8	2598.2	2702.0	2785.6	2812.3
40°	267.6	341.1	1060.0	1384.4	2197.0	2474.5	2494.6	2531.4	2668.5	2765.5	2792.2
42.5°	244.1	307.7	966.5	1310.9	2136.8	2387.6	2417.7	2471.2	2628.4	2732.0	2762.2
45°	224.1	274.2	866.1	1210.5	2059.9	2297.3	2340.8	2414.4	2581.5	2681.9	2708.6
47.5°	204.0	250.8	762.4	1106.9	1976.3	2207.0	2263.9	2347.5	2518.0	2615.0	2638.5
50°	187.2	227.4	658.8	996.5	1886.0	2110.1	2177.0	2263.9	2437.8	2528.1	2558.1
52.5°	173.9	207.3	561.8	886.1	1782.4	2009.7	2086.7	2177.0	2340.8	2427.7	2447.8
55°	160.6	190.6	478.2	769.2	1675.4	1902.7	1986.4	2073.3	2233.8	2307.4	2320.7
57.5°	153.8	177.2	407.9	658.8	1561.6	1782.4	1876.0	1956.2	2106.7	2163.5	2177.0
60°	143.8	167.2	354.5	565.1	1437.9	1668.6	1748.9	1829.2	1956.2	2003.1	2013.0
62.5°	133.8	160.6	314.4	474.8	1310.9	1534.9	1615.2	1688.7	1795.7	1829.2	1842.5
65°	127.1	153.8	284.2	407.9	1180.5	1394.5	1474.7	1538.2	1625.2	1658.7	1665.3
67.5°	120.3	147.1	260.8	351.1	1050.0	1254.0	1314.1	1374.4	1441.3	1474.7	1478.0
70°	110.4	140.5	240.8	311.0	916.3	1093.5	1143.6	1207.1	1260.7	1277.4	1287.5
72.5°	103.6	130.4	227.4	280.9	779.1	939.7	986.5	1023.3	1070.1	1086.8	1086.8
75°	93.7	117.1	214.0	250.8	638.7	769.2	809.3	846.0	882.8	889.5	879.5
77.5°	83.6	103.6	184.0	210.6	498.2	608.6	642.0	662.2	692.2	698.9	702.3
80°	70.2	90.3	143.8	163.8	361.1	448.1	471.5	488.3	514.9	514.9	521.7
82.5°	53.5	70.2	103.6	117.1	244.1	307.7	327.7	337.7	354.5	354.5	354.5
85°	33.4	43.5	66.9	76.9	147.1	187.2	200.7	204.0	217.4	220.7	220.7
87.5°	16.7	23.4	43.5	46.8	76.9	97.0	97.0	103.6	103.6	100.3	97.0
90°	4.1	7.3	10.6	11.4	17.9	26.6	30.9	27.5	20.6	15.5	15.5
92.5°	16.3	44.0	71.7	78.6	110.6	153.0	174.3	152.7	109.7	77.4	74.3
95°	39.1	89.8	140.5	153.1	271.9	430.3	509.5	454.7	345.0	262.7	253.4
97.5°	67.6	112.2	157.0	168.2	366.3	630.3	762.4	727.8	658.4	606.4	588.7
100°	89.6	130.1	170.6	180.8	400.6	693.7	840.2	842.8	847.8	851.6	830.4
102.5°	108.4	146.2	184.0	193.5	416.3	713.6	862.2	906.4	994.7	1060.9	1042.8
105°	140.1	172.1	204.2	212.2	428.1	715.9	859.8	958.8	1156.8	1305.3	1295.6
107.5°	172.7	202.5	232.4	239.9	430.2	684.0	810.9	949.0	1225.2	1432.4	1434.8
110°	194.6	221.6	248.7	255.4	427.0	655.7	770.1	924.6	1233.3	1464.9	1475.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	216.3	242.0	267.6	274.1	427.1	631.1	733.1	891.1	1207.1	1444.2	1459.8
115°	248.9	272.6	296.3	302.2	431.1	602.9	688.7	841.0	1145.4	1373.7	1395.3
117.5°	281.0	302.5	324.1	329.5	439.1	585.1	658.1	795.5	1070.3	1276.4	1300.3
120°	299.8	320.0	340.4	345.4	445.6	579.2	646.0	771.4	1022.5	1210.8	1234.0
122.5°	318.0	338.5	358.9	364.1	454.9	576.0	636.6	749.6	975.7	1145.3	1168.2
125°	346.2	364.8	383.4	388.1	467.5	573.4	626.4	722.4	914.5	1058.5	1079.7
127.5°	369.0	387.8	406.6	411.3	480.2	572.0	617.8	700.3	865.2	988.9	1006.7
130°	381.2	401.4	421.8	426.8	489.4	572.8	614.5	687.9	834.8	944.8	961.3
132.5°	393.8	414.1	434.4	439.5	496.9	573.4	611.8	677.5	808.9	907.4	922.1
135°	412.6	431.1	449.4	454.1	505.0	572.8	606.8	661.9	771.9	854.4	867.2
137.5°	431.8	450.0	468.3	472.9	517.2	576.4	606.0	652.6	745.6	815.4	825.8
140°	447.6	464.5	481.3	485.5	524.7	577.0	603.2	643.4	723.7	784.0	793.7
142.5°	459.8	475.3	490.9	494.8	531.0	579.1	603.2	638.4	709.1	762.0	770.4
145°	478.6	492.1	505.8	509.1	539.2	579.2	599.1	628.0	685.8	729.0	735.4
147.5°	497.3	510.5	523.7	527.0	551.0	583.1	599.1	621.8	667.2	701.3	706.5
150°	509.5	521.5	533.4	536.4	557.3	585.2	599.1	618.3	656.7	685.5	689.7
152.5°	522.2	531.2	540.2	542.5	561.4	586.6	599.1	615.5	648.2	672.8	676.1
155°	540.8	547.5	554.3	555.9	570.4	589.5	599.1	612.2	638.1	657.7	659.9
157.5°	554.7	561.2	567.7	569.4	579.3	592.5	599.1	609.2	629.5	644.7	646.2
160°	564.0	569.2	574.2	575.5	583.4	593.9	599.1	607.8	625.1	638.1	639.0
162.5°	573.4	577.3	581.0	582.0	587.8	595.4	599.1	606.4	621.2	632.1	632.9
165°	583.6	587.1	590.4	591.3	593.9	597.3	599.1	604.4	614.8	622.7	623.6
167.5°	593.0	594.6	596.3	596.7	598.8	601.7	603.2	606.6	613.5	618.7	619.1
170°	599.1	600.7	602.4	602.8	602.9	603.1	603.2	606.6	613.5	618.7	618.7
172.5°	602.4	602.8	603.1	603.2	603.2	603.2	603.2	605.9	611.4	615.4	615.1
175°	606.8	606.8	606.8	606.8	605.6	604.0	603.2	604.9	608.3	610.9	610.9
177.5°	606.8	606.8	606.8	606.8	605.8	604.6	604.0	605.3	608.0	610.1	609.7
180°	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1040.0	1040.0
2.5°	1110.2	1103.5
5°	1427.9	1434.6
7.5°	1922.7	1919.5
10°	2391.0	2421.1
12.5°	2732.0	2738.7
15°	2939.4	2952.7
17.5°	3019.6	3023.0
20°	3023.0	3016.3
22.5°	2986.2	2979.5
25°	2942.8	2939.4
27.5°	2902.5	2905.9
30°	2885.8	2895.9
32.5°	2885.8	2902.5
35°	2892.6	2909.3
37.5°	2889.2	2909.3
40°	2875.9	2899.3
42.5°	2839.0	2855.8
45°	2782.2	2802.3
47.5°	2708.6	2722.0
50°	2615.0	2628.4
52.5°	2498.0	2501.3
55°	2357.5	2370.9
57.5°	2207.0	2210.4
60°	2039.8	2049.9
62.5°	1862.6	1862.6
65°	1675.4	1682.1
67.5°	1481.4	1498.1
70°	1284.1	1287.5
72.5°	1090.2	1090.2
75°	889.5	892.9
77.5°	698.9	698.9
80°	518.3	521.7
82.5°	357.9	364.5
85°	224.1	224.1
87.5°	103.6	93.7
90°	15.5	15.5
92.5°	61.9	49.7
95°	216.1	178.8
97.5°	517.7	446.8
100°	745.9	661.4
102.5°	970.4	898.0
105°	1256.6	1217.7
107.5°	1444.2	1453.5
110°	1515.6	1556.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1522.0	1584.3
115°	1481.6	1568.0
117.5°	1396.1	1491.9
120°	1327.1	1420.2
122.5°	1260.0	1351.8
125°	1164.2	1248.7
127.5°	1078.0	1149.3
130°	1027.2	1093.1
132.5°	981.2	1040.2
135°	918.0	968.9
137.5°	867.5	909.1
140°	832.6	871.5
142.5°	803.8	837.3
145°	760.8	786.1
147.5°	727.6	748.6
150°	706.7	723.7
152.5°	688.9	701.8
155°	668.4	676.9
157.5°	652.2	658.1
160°	642.5	646.0
162.5°	636.2	639.4
165°	627.0	630.4
167.5°	620.5	621.9
170°	618.7	618.7
172.5°	613.8	612.6
175°	610.9	610.9
177.5°	608.3	606.8
180°	606.8	606.8



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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	7.90	9.00	8.68	9.81	10.81	21.08	22.18	21.86	22.99	23.99
	3H	8.62	9.61	9.42	10.44	11.46	22.94	23.92	23.73	24.75	25.78
	4H	8.93	9.87	9.75	10.70	11.74	23.59	24.53	24.41	25.36	26.40
	6H	9.19	10.06	10.02	10.90	11.95	24.03	24.90	24.86	25.74	26.79
	8H	9.27	10.09	10.11	10.95	12.01	24.16	24.99	25.00	25.85	26.90
	12H	9.29	10.08	10.14	10.94	12.02	24.24	25.03	25.08	25.88	26.96
4H	2H	15.14	16.08	15.96	16.91	17.95	21.38	22.32	22.20	23.15	24.19
	3H	16.73	17.52	17.57	18.38	19.44	23.45	24.23	24.28	25.10	26.15
	4H	16.84	17.55	17.68	18.42	19.50	24.23	24.94	25.07	25.80	26.89
	6H	16.86	17.48	17.72	18.37	19.46	24.78	25.40	25.64	26.29	27.37
	8H	16.85	17.43	17.71	18.31	19.41	24.95	25.53	25.81	26.41	27.51
	12H	16.81	17.34	17.70	18.24	19.35	25.05	25.58	25.94	26.48	27.59
8H	4H	18.30	18.88	19.17	19.77	20.87	24.31	24.89	25.17	25.77	26.87
	6H	18.56	19.04	19.45	19.96	21.06	24.95	25.43	25.84	26.35	27.45
	8H	18.58	19.01	19.48	19.92	21.04	25.17	25.60	26.07	26.52	27.63
	12H	18.56	18.94	19.47	19.85	21.01	25.33	25.70	26.23	26.61	27.78
12H	4H	18.46	18.98	19.34	19.89	20.99	24.27	24.80	25.16	25.70	26.80
	6H	18.82	19.25	19.72	20.16	21.28	24.93	25.36	25.84	26.28	27.40
	8H	18.90	19.28	19.81	20.19	21.36	25.17	25.55	26.08	26.46	27.63