

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: P936748

Luminaire Tested: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

**Test Information**

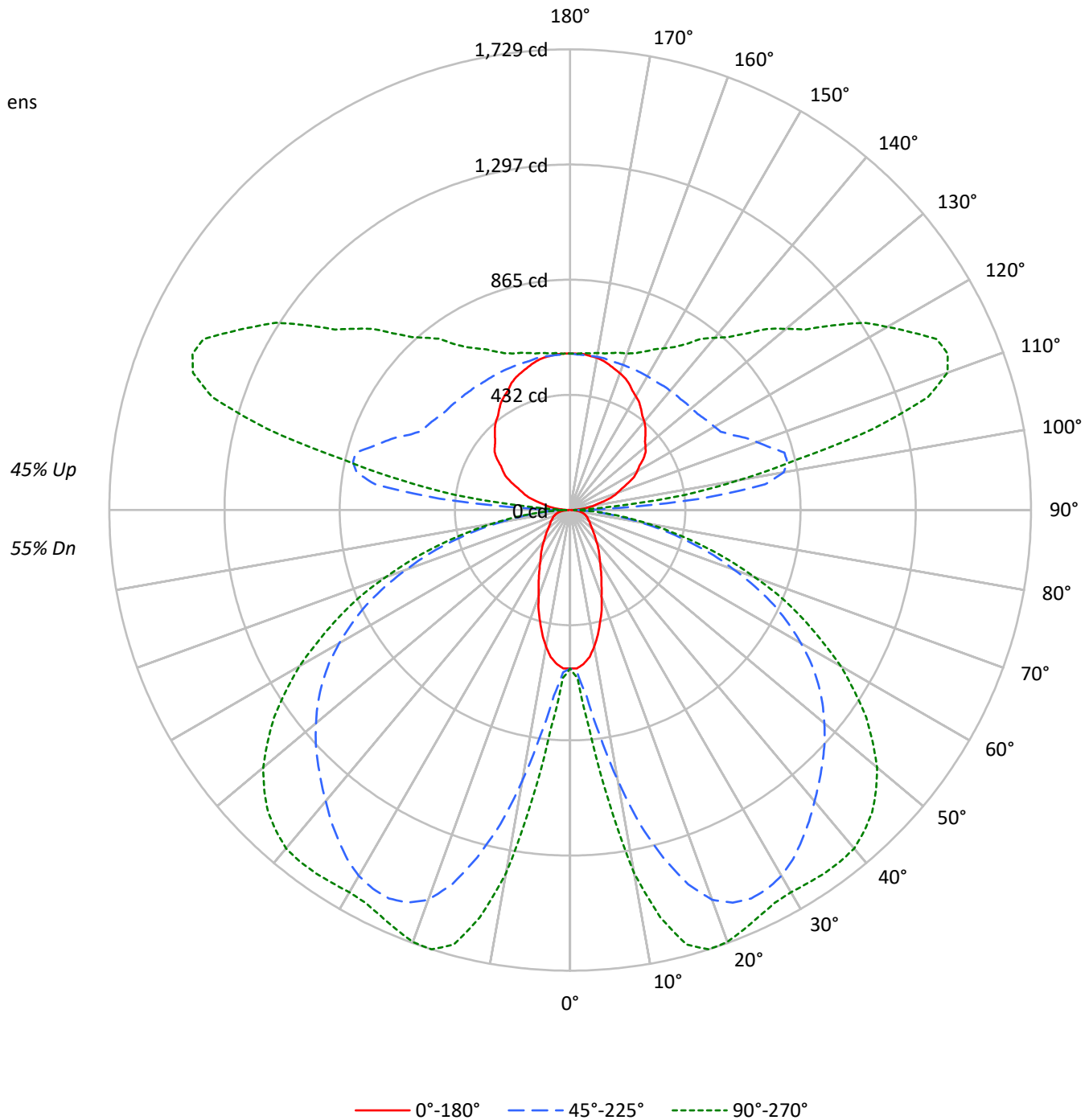
Test Method: LM-79-2019  
Report Number: P936748  
REPORT IS A COMBINATION OF REPORTS P933486 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8410.7 lumens  
Efficiency: N/A  
Efficacy: 115.5 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: General Diffuse  
  
Input Watts (W): 72.8  
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

TEST NUMBER: P936748  
CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P936748

CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

**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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11

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

	0°	45°	90°
0°	2760	2760	2760
5°	2696	3189	3709
10°	2445	4649	6150
15°	2078	6074	7425
20°	1692	7039	7568
25°	1411	7366	7414
30°	1190	7413	7400
35°	1052	7289	7591
40°	917	7129	7789
45°	830	7013	7820
50°	762	6907	7690
55°	730	6753	7349
60°	747	6456	6811
65°	777	6005	6071
70°	828	5237	5129
75°	916	4270	4002
80°	1003	2961	2697
85°	890	1570	1380

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7820 cd/sqm



TEST NUMBER: P936748

CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.9	0.9
10°-20°	341.0	4.1
20°-30°	596.4	7.1
30°-40°	767.8	9.1
40°-50°	857.6	10.2
50°-60°	821.4	9.8
60°-70°	650.9	7.7
70°-80°	382.8	4.6
80°-90°	108.6	1.3
90°-100°	286.3	3.4
100°-110°	752.6	8.9
110°-120°	780.4	9.3
120°-130°	626.0	7.4
130°-140°	491.2	5.8
140°-150°	377.0	4.5
150°-160°	271.5	3.2
160°-170°	166.1	2.0
170°-180°	56.1	0.7
0°-30°	1014.4	12.1
0°-40°	1782.2	21.2
0°-60°	3461.2	41.2
0°-90°	4603.4	54.7
90°-120°	1819.3	21.6
90°-150°	3313.5	39.4
90°-180°	3807.0	45.3
0°-180°	8410.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	580	622	700	792	820	53
15°	434	801	1350	1637	1689	121
25°	277	908	1608	1679	1681	128
35°	187	868	1515	1601	1664	117
45°	128	692	1339	1534	1603	99
55°	92	440	1136	1320	1356	84
65°	73	233	843	948	962	72
75°	54	143	463	509	511	56
85°	19	44	115	126	128	20
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	



TEST NUMBER: P936748

CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8
2.5°	594.8	594.8	598.6	600.5	604.3	606.2	610.1	613.9	625.4	627.3	631.1
5°	579.5	587.1	612.0	621.5	648.3	684.6	699.9	724.8	776.4	791.7	801.3
7.5°	556.5	573.7	634.9	650.2	717.1	812.8	852.9	906.5	988.7	1028.9	1061.4
10°	520.2	556.5	665.5	701.8	810.9	956.2	1030.8	1105.5	1229.8	1285.2	1306.3
12.5°	480.0	539.3	698.0	747.7	904.6	1116.9	1206.8	1289.0	1430.6	1505.1	1516.6
15°	434.1	514.4	728.6	801.3	1004.0	1250.8	1350.2	1451.6	1583.6	1637.1	1650.5
17.5°	394.0	495.3	757.3	833.8	1080.5	1371.3	1472.6	1556.8	1663.9	1700.2	1709.8
20°	344.2	464.7	776.4	875.9	1160.9	1459.2	1556.8	1621.8	1694.5	1717.4	1721.2
22.5°	307.9	432.2	787.9	891.2	1214.5	1512.8	1595.0	1646.7	1696.4	1704.0	1705.9
25°	277.3	395.9	786.0	908.4	1260.4	1545.3	1608.4	1646.7	1675.3	1679.2	1679.2
27.5°	248.6	355.7	778.3	912.2	1294.8	1553.0	1602.7	1629.4	1642.8	1650.5	1650.5
30°	223.7	317.5	759.2	904.6	1310.1	1545.3	1585.5	1598.9	1612.2	1623.7	1629.4
32.5°	204.6	281.1	730.5	889.3	1312.0	1526.2	1554.9	1562.5	1581.6	1608.4	1618.0
35°	187.4	244.8	698.0	868.2	1300.5	1495.6	1514.7	1522.4	1560.6	1600.8	1614.1
37.5°	170.2	218.0	655.9	831.9	1283.3	1459.2	1472.6	1486.0	1545.3	1593.1	1608.4
40°	153.0	195.1	606.2	791.7	1256.5	1415.3	1426.7	1447.8	1526.2	1581.6	1596.9
42.5°	139.6	175.9	552.7	749.7	1222.1	1365.5	1382.8	1413.3	1503.2	1562.5	1579.7
45°	128.1	156.8	495.3	692.3	1178.1	1313.9	1338.8	1380.8	1476.5	1533.8	1549.1
47.5°	116.7	143.4	436.0	633.0	1130.3	1262.3	1294.8	1342.6	1440.1	1495.6	1509.0
50°	107.1	130.0	376.7	569.9	1078.6	1206.8	1245.1	1294.8	1394.2	1445.9	1463.1
52.5°	99.4	118.6	321.3	506.8	1019.3	1149.4	1193.4	1245.1	1338.8	1388.5	1400.0
55°	91.8	109.0	273.5	439.8	958.1	1088.2	1136.1	1185.8	1277.6	1319.6	1327.3
57.5°	88.0	101.4	233.3	376.7	893.1	1019.3	1072.8	1118.8	1204.9	1237.4	1245.1
60°	82.2	95.6	202.7	323.2	822.3	954.3	1000.2	1046.1	1118.8	1145.6	1151.4
62.5°	76.5	91.8	179.8	271.6	749.7	877.8	923.7	965.8	1027.0	1046.1	1053.7
65°	72.7	88.0	162.6	233.3	675.1	797.5	843.4	879.7	929.4	948.5	952.4
67.5°	68.8	84.1	149.2	200.8	600.5	717.1	751.6	786.0	824.2	843.4	845.3
70°	63.1	80.3	137.7	177.9	524.0	625.4	654.0	690.4	721.0	730.5	736.3
72.5°	59.3	74.6	130.0	160.6	445.6	537.4	564.2	585.2	612.0	621.5	621.5
75°	53.5	66.9	122.4	143.4	365.3	439.8	462.8	483.8	504.9	508.7	503.0
77.5°	47.8	59.3	105.2	120.5	284.9	348.1	367.2	378.7	395.9	399.7	401.6
80°	40.2	51.6	82.2	93.7	206.5	256.3	269.6	279.2	294.5	294.5	298.3
82.5°	30.6	40.2	59.3	66.9	139.6	175.9	187.4	193.2	202.7	202.7	202.7
85°	19.1	24.9	38.2	44.0	84.1	107.1	114.7	116.7	124.3	126.2	126.2
87.5°	9.6	13.4	24.9	26.8	44.0	55.5	55.5	59.3	59.3	57.4	55.5
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



TEST NUMBER: P936748

CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

**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



TEST NUMBER: P936748

CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	594.8	594.8
2.5°	634.9	631.1
5°	816.6	820.4
7.5°	1099.7	1097.8
10°	1367.5	1384.7
12.5°	1562.5	1566.3
15°	1681.1	1688.7
17.5°	1727.0	1728.9
20°	1728.9	1725.1
22.5°	1707.9	1704.0
25°	1683.0	1681.1
27.5°	1660.0	1662.0
30°	1650.5	1656.2
32.5°	1650.5	1660.0
35°	1654.3	1663.9
37.5°	1652.4	1663.9
40°	1644.7	1658.1
42.5°	1623.7	1633.3
45°	1591.2	1602.7
47.5°	1549.1	1556.8
50°	1495.6	1503.2
52.5°	1428.6	1430.6
55°	1348.3	1356.0
57.5°	1262.3	1264.2
60°	1166.7	1172.4
62.5°	1065.2	1065.2
65°	958.1	961.9
67.5°	847.2	856.7
70°	734.4	736.3
72.5°	623.4	623.4
75°	508.7	510.6
77.5°	399.7	399.7
80°	296.4	298.3
82.5°	204.6	208.5
85°	128.1	128.1
87.5°	59.3	53.5
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





TEST NUMBER: P936748

CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

**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



TEST NUMBER: P936748

CATALOG NUMBER: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-6500K

**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	4.95	5.90	5.86	6.83	8.03	18.13	19.08	19.04	20.01	21.21
	3H	5.66	6.52	6.58	7.46	8.68	19.98	20.83	20.90	21.77	22.99
	4H	5.97	6.77	6.90	7.72	8.95	20.63	21.43	21.56	22.38	23.61
	6H	6.22	6.97	7.17	7.92	9.16	21.06	21.81	22.01	22.76	24.01
	8H	6.29	7.00	7.24	7.97	9.22	21.19	21.90	22.14	22.87	24.11
	12H	6.31	6.99	7.27	7.95	9.22	21.26	21.93	22.21	22.90	24.17
4H	2H	12.18	12.99	13.12	13.93	15.16	18.42	19.22	19.36	20.17	21.40
	3H	13.75	14.43	14.70	15.41	16.65	20.47	21.15	21.42	22.12	23.37
	4H	13.85	14.47	14.81	15.44	16.71	21.24	21.86	22.20	22.83	24.10
	6H	13.87	14.40	14.84	15.40	16.67	21.79	22.32	22.76	23.32	24.58
	8H	13.85	14.35	14.82	15.34	16.62	21.95	22.45	22.92	23.44	24.72
	12H	13.81	14.26	14.80	15.27	16.56	22.05	22.50	23.04	23.50	24.79
8H	4H	15.31	15.81	16.28	16.79	18.08	21.31	21.81	22.28	22.80	24.08
	6H	15.55	15.97	16.55	17.00	18.28	21.94	22.36	22.94	23.39	24.67
	8H	15.57	15.94	16.58	16.95	18.26	22.16	22.53	23.17	23.55	24.85
	12H	15.54	15.87	16.56	16.88	18.22	22.31	22.64	23.33	23.65	24.99
12H	4H	15.45	15.91	16.45	16.91	18.20	21.27	21.72	22.26	22.72	24.01
	6H	15.81	16.18	16.82	17.20	18.50	21.93	22.29	22.94	23.31	24.61
	8H	15.88	16.21	16.90	17.22	18.57	22.16	22.48	23.17	23.50	24.84