

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: P938242

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938242
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

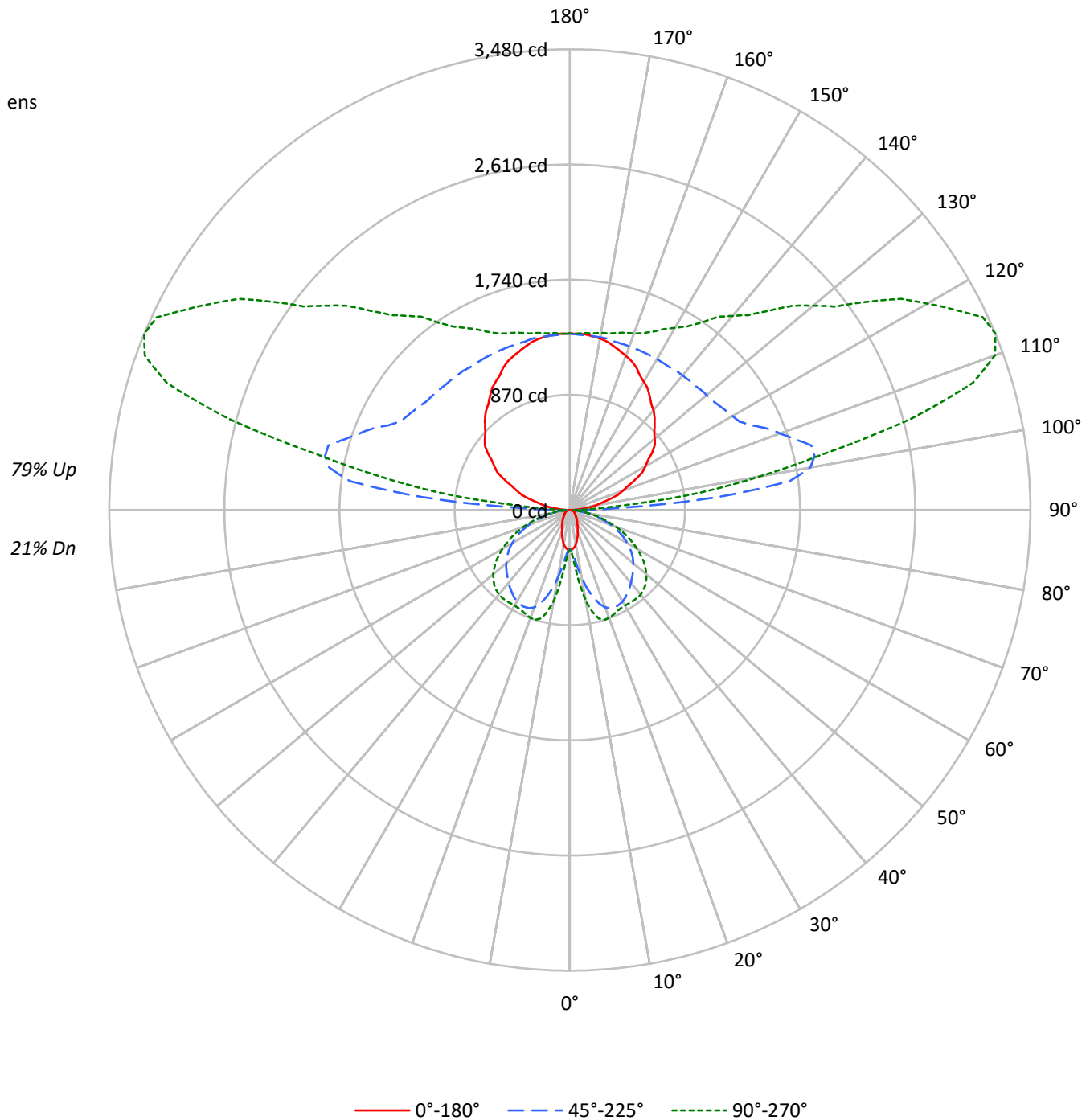
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10959.9 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 83.4
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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CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-6500K

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1850	1850	1850
5°	1807	2138	2487
10°	1638	3116	4123
15°	1392	4070	4979
20°	1133	4715	5075
25°	945	4933	4972
30°	796	4963	4962
35°	704	4879	5090
40°	613	4771	5223
45°	554	4691	5243
50°	508	4619	5157
55°	487	4514	4928
60°	498	4314	4567
65°	516	4011	4070
70°	548	3495	3439
75°	608	2846	2684
80°	657	1972	1808
85°	578	1046	925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5243 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	0.4
10°-20°	171.5	1.6
20°-30°	300.0	2.7
30°-40°	386.1	3.5
40°-50°	431.3	3.9
50°-60°	413.1	3.8
60°-70°	327.4	3.0
70°-80°	192.5	1.8
80°-90°	58.6	0.5
90°-100°	649.8	5.9
100°-110°	1708.2	15.6
110°-120°	1771.2	16.2
120°-130°	1420.7	13.0
130°-140°	1114.8	10.2
140°-150°	855.6	7.8
150°-160°	616.2	5.6
160°-170°	377.0	3.4
170°-180°	127.4	1.2
0°-30°	510.1	4.7
0°-40°	896.3	8.2
0°-60°	1740.6	15.9
0°-90°	2319.1	21.2
90°-120°	4129.1	37.7
90°-150°	7520.2	68.6
90°-180°	8641.0	78.8
0°-180°	10959.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	299	299	299	299	299	
5°	291	313	352	398	413	27
15°	218	403	679	823	849	61
25°	140	457	809	844	846	64
35°	94	437	762	805	837	59
45°	64	348	673	771	806	50
55°	46	221	571	664	682	42
65°	36	117	424	477	484	36
75°	27	72	233	256	257	28
85°	10	22	58	64	64	10
90°	9	25	68	34	34	8
95°	86	336	1119	577	393	95
105°	308	466	1888	2867	2675	326
115°	547	664	1513	3017	3444	540
125°	760	852	1376	2325	2743	675
135°	906	998	1333	1877	2128	701
145°	1051	1118	1316	1601	1726	659
155°	1188	1221	1316	1445	1487	546
165°	1282	1299	1316	1368	1385	362
175°	1333	1333	1325	1342	1342	127
180°	1333	1333	1333	1333	1333	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	299.1	299.1	299.1	299.1	299.1	299.1	299.1	299.1	299.1	299.1	299.1
2.5°	299.1	299.1	301.0	302.0	304.0	304.9	306.8	308.8	314.5	315.4	317.4
5°	291.4	295.3	307.8	312.6	326.1	344.3	352.0	364.5	390.5	398.2	403.0
7.5°	279.9	288.6	319.3	327.0	360.7	408.8	428.9	455.9	497.2	517.5	533.8
10°	261.6	279.9	334.7	353.0	407.8	480.9	518.4	555.9	618.5	646.3	656.9
12.5°	241.4	271.3	351.0	376.1	455.0	561.7	606.9	648.3	719.4	756.9	762.7
15°	218.3	258.7	366.4	403.0	505.0	629.0	679.0	730.1	796.4	823.3	830.1
17.5°	198.1	249.1	380.9	419.4	543.4	689.6	740.6	782.9	836.8	855.0	859.8
20°	173.2	233.7	390.5	440.5	583.9	733.9	782.9	815.6	852.2	863.7	865.6
22.5°	154.8	217.3	396.2	448.2	610.7	760.7	802.2	828.1	853.1	856.9	857.9
25°	139.5	199.1	395.3	456.9	633.9	777.1	808.8	828.1	842.5	844.4	844.4
27.5°	125.1	178.9	391.5	458.8	651.2	781.0	806.0	819.5	826.2	830.1	830.1
30°	112.5	159.7	381.8	455.0	658.8	777.1	797.4	804.1	810.8	816.6	819.5
32.5°	102.9	141.4	367.4	447.2	659.8	767.5	782.0	785.8	795.4	808.8	813.7
35°	94.3	123.2	351.0	436.7	654.0	752.1	761.7	765.6	784.8	805.0	811.7
37.5°	85.6	109.7	329.9	418.4	645.3	733.9	740.6	747.4	777.1	801.2	808.8
40°	77.0	98.1	304.9	398.2	631.9	711.7	717.5	728.0	767.5	795.4	803.1
42.5°	70.2	88.4	278.0	377.0	614.5	686.7	695.3	710.7	756.0	785.8	794.4
45°	64.4	78.9	249.1	348.1	592.5	660.7	673.3	694.4	742.5	771.4	779.0
47.5°	58.7	72.1	219.3	318.3	568.5	634.8	651.2	675.2	724.2	752.1	758.8
50°	53.8	65.4	189.5	286.6	542.4	606.9	626.1	651.2	701.2	727.1	735.8
52.5°	50.0	59.7	161.6	254.9	512.6	578.0	600.2	626.1	673.3	698.3	704.0
55°	46.2	54.8	137.5	221.2	481.8	547.2	571.3	596.3	642.5	663.6	667.5
57.5°	44.3	51.0	117.3	189.5	449.1	512.6	539.6	562.6	605.9	622.3	626.1
60°	41.4	48.1	101.9	162.6	413.6	479.9	503.1	526.1	562.6	576.1	579.0
62.5°	38.4	46.2	90.5	136.5	377.0	441.5	464.5	485.7	516.4	526.1	529.9
65°	36.5	44.3	81.8	117.3	339.5	401.0	424.2	442.4	467.4	477.0	479.0
67.5°	34.6	42.4	75.1	101.0	302.0	360.7	378.0	395.3	414.5	424.2	425.1
70°	31.7	40.4	69.2	89.4	263.5	314.5	328.9	347.2	362.6	367.4	370.3
72.5°	29.8	37.5	65.4	80.8	224.1	270.2	283.7	294.3	307.8	312.6	312.6
75°	27.0	33.7	61.6	72.1	183.7	221.2	232.7	243.4	253.9	255.9	252.9
77.5°	24.0	29.8	52.9	60.6	143.3	175.1	184.6	190.5	199.1	201.0	201.9
80°	20.2	26.0	41.4	47.1	103.8	128.9	135.6	140.5	148.1	148.1	150.0
82.5°	15.4	20.2	29.8	33.7	70.2	88.4	94.3	97.1	101.9	101.9	101.9
85°	9.7	12.5	19.2	22.1	42.4	53.8	57.8	58.7	62.5	63.5	63.5
87.5°	4.8	6.7	12.5	13.5	22.1	27.9	27.9	29.8	29.8	28.9	27.9
90°	9.0	16.2	23.2	25.1	39.4	58.4	68.0	60.4	45.3	34.0	34.0
92.5°	35.8	96.6	157.5	172.7	242.8	336.2	382.9	335.5	241.0	170.0	163.2
95°	85.9	197.2	308.6	336.4	597.3	945.2	1119.1	998.6	757.7	577.0	556.5
97.5°	148.5	246.7	344.9	369.5	804.5	1384.7	1674.7	1598.6	1446.2	1332.1	1293.1
100°	196.8	285.9	374.9	397.2	880.0	1523.7	1845.5	1851.1	1862.3	1870.6	1824.2
102.5°	238.0	321.1	404.2	424.9	914.6	1567.4	1893.8	1990.8	2184.8	2330.3	2290.6
105°	307.7	378.1	448.5	466.0	940.2	1572.4	1888.5	2105.9	2540.9	2867.1	2845.7
107.5°	379.3	444.9	510.5	526.9	944.9	1502.4	1781.1	2084.5	2691.2	3146.3	3151.4
110°	427.6	486.9	546.1	560.9	937.8	1440.3	1691.6	2030.8	2709.1	3217.8	3240.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	475.0	531.5	587.9	602.0	938.1	1386.2	1610.2	1957.3	2651.5	3172.2	3206.4
115°	546.6	598.7	650.8	663.8	946.7	1324.0	1512.7	1847.1	2515.8	3017.4	3064.8
117.5°	617.2	664.6	711.9	723.7	964.4	1285.2	1445.7	1747.4	2350.9	2803.6	2856.1
120°	658.4	703.0	747.6	758.6	978.7	1272.1	1418.8	1694.6	2246.0	2659.6	2710.6
122.5°	698.7	743.6	788.6	799.8	999.2	1265.2	1398.2	1646.6	2143.1	2515.6	2565.9
125°	760.4	801.3	842.3	852.5	1027.0	1259.6	1375.9	1586.8	2008.6	2325.0	2371.4
127.5°	810.5	851.8	893.2	903.5	1054.7	1256.2	1357.0	1538.1	1900.3	2172.0	2211.2
130°	837.3	881.9	926.5	937.5	1075.0	1258.3	1350.0	1511.2	1833.6	2075.4	2111.6
132.5°	865.1	909.6	954.2	965.3	1091.4	1259.6	1343.6	1487.9	1776.6	1993.1	2025.5
135°	906.2	946.7	987.4	997.5	1109.3	1258.3	1332.9	1453.8	1695.5	1876.8	1904.7
137.5°	948.3	988.4	1028.6	1038.6	1136.1	1266.1	1331.1	1433.3	1637.7	1790.9	1813.8
140°	983.2	1020.2	1057.1	1066.3	1152.5	1267.4	1324.9	1413.2	1589.7	1722.1	1743.4
142.5°	1009.9	1044.2	1078.4	1086.9	1166.3	1272.0	1324.9	1402.4	1557.4	1673.7	1692.1
145°	1051.1	1081.0	1110.8	1118.3	1184.1	1272.0	1315.9	1379.3	1506.2	1601.3	1615.2
147.5°	1092.3	1121.3	1150.3	1157.6	1210.3	1280.7	1315.9	1365.8	1465.6	1540.4	1552.0
150°	1119.1	1145.3	1171.5	1178.1	1224.0	1285.3	1315.9	1358.1	1442.3	1505.5	1514.9
152.5°	1146.9	1166.7	1186.6	1191.6	1233.0	1288.3	1315.9	1351.9	1423.9	1477.8	1484.9
155°	1188.0	1202.7	1217.4	1221.1	1252.7	1294.9	1315.9	1344.5	1401.8	1444.7	1449.4
157.5°	1218.4	1232.7	1247.1	1250.6	1272.4	1301.4	1315.9	1338.2	1382.8	1416.1	1419.4
160°	1239.0	1250.1	1261.2	1264.0	1281.3	1304.3	1315.9	1335.0	1373.2	1401.8	1403.7
162.5°	1259.6	1267.9	1276.2	1278.3	1290.9	1307.6	1315.9	1332.0	1364.2	1388.4	1390.2
165°	1282.0	1289.5	1297.0	1298.9	1304.5	1312.1	1315.9	1327.5	1350.5	1367.8	1369.7
167.5°	1302.5	1306.1	1309.7	1310.6	1315.3	1321.7	1324.9	1332.5	1347.6	1358.8	1359.6
170°	1315.9	1319.5	1323.1	1323.9	1324.2	1324.7	1324.9	1332.5	1347.6	1358.8	1358.8
172.5°	1323.1	1323.8	1324.7	1324.9	1324.9	1324.9	1324.9	1330.8	1342.8	1351.7	1351.0
175°	1332.9	1332.9	1332.9	1332.9	1330.3	1326.7	1324.9	1328.6	1336.2	1341.8	1341.8
177.5°	1332.9	1332.9	1332.9	1332.9	1330.8	1328.1	1326.6	1329.6	1335.6	1340.1	1339.3
180°	1332.9	1332.9	1332.9	1332.9	1332.9	1332.9	1332.9	1332.9	1332.9	1332.9	1332.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	299.1	299.1
2.5°	319.3	317.4
5°	410.7	412.6
7.5°	553.1	552.1
10°	687.7	696.3
12.5°	785.8	787.7
15°	845.5	849.3
17.5°	868.5	869.5
20°	869.5	867.6
22.5°	858.9	856.9
25°	846.4	845.5
27.5°	834.9	835.8
30°	830.1	832.9
32.5°	830.1	834.9
35°	832.0	836.8
37.5°	831.0	836.8
40°	827.1	833.9
42.5°	816.6	821.4
45°	800.2	806.0
47.5°	779.0	782.9
50°	752.1	756.0
52.5°	718.5	719.4
55°	678.0	682.0
57.5°	634.8	635.8
60°	586.7	589.6
62.5°	535.8	535.8
65°	481.8	483.7
67.5°	426.1	430.9
70°	369.4	370.3
72.5°	313.5	313.5
75°	255.9	256.8
77.5°	201.0	201.0
80°	149.1	150.0
82.5°	102.9	104.8
85°	64.4	64.4
87.5°	29.8	27.0
90°	34.0	34.0
92.5°	136.2	109.1
95°	474.6	392.7
97.5°	1137.2	981.3
100°	1638.5	1452.8
102.5°	2131.5	1972.5
105°	2760.2	2674.8
107.5°	3172.1	3192.7
110°	3329.1	3418.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3343.1	3479.9
115°	3254.4	3444.1
117.5°	3066.5	3276.9
120°	2915.0	3119.4
122.5°	2767.5	2969.1
125°	2557.1	2742.7
127.5°	2367.8	2524.5
130°	2256.3	2401.0
132.5°	2155.1	2284.7
135°	2016.5	2128.2
137.5°	1905.3	1996.7
140°	1828.9	1914.4
142.5°	1765.7	1839.2
145°	1670.9	1726.5
147.5°	1598.1	1644.3
150°	1552.3	1589.7
152.5°	1513.1	1541.4
155°	1468.0	1486.8
157.5°	1432.6	1445.7
160°	1411.2	1418.8
162.5°	1397.3	1404.5
165°	1377.2	1384.8
167.5°	1362.9	1366.0
170°	1358.8	1358.8
172.5°	1348.2	1345.5
175°	1341.8	1341.8
177.5°	1336.1	1332.9
180°	1332.9	1332.9



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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	0.00	0.23	0.73	1.38	3.01	12.73	13.39	13.89	14.55	16.18
	3H	0.25	0.85	1.43	2.01	3.65	14.55	15.14	15.72	16.30	17.95
	4H	0.54	1.11	1.73	2.27	3.92	15.18	15.75	16.36	16.91	18.56
	6H	0.78	1.30	1.97	2.47	4.13	15.60	16.12	16.78	17.28	18.94
	8H	0.84	1.34	2.04	2.52	4.17	15.71	16.20	16.90	17.38	19.03
	12H	0.86	1.33	2.05	2.50	4.17	15.77	16.24	16.96	17.41	19.08
4H	2H	6.75	7.31	7.94	8.47	10.12	12.98	13.54	14.17	14.71	16.35
	3H	8.30	8.77	9.49	9.96	11.62	15.00	15.47	16.19	16.66	18.32
	4H	8.38	8.82	9.58	9.99	11.67	15.75	16.19	16.95	17.37	19.04
	6H	8.38	8.75	9.58	9.95	11.62	16.28	16.65	17.48	17.85	19.52
	8H	8.35	8.70	9.55	9.89	11.57	16.43	16.78	17.63	17.97	19.65
	12H	8.30	8.62	9.51	9.81	11.50	16.51	16.83	17.73	18.03	19.72
8H	4H	9.81	10.15	11.00	11.34	13.03	15.80	16.15	17.00	17.34	19.02
	6H	10.04	10.33	11.26	11.56	13.24	16.41	16.70	17.63	17.93	19.61
	8H	10.05	10.30	11.28	11.51	13.21	16.63	16.88	17.85	18.09	19.79
	12H	10.01	10.23	11.24	11.44	13.17	16.76	16.98	17.99	18.19	19.92
12H	4H	9.94	10.25	11.15	11.45	13.14	15.74	16.06	16.96	17.26	18.95
	6H	10.29	10.54	11.51	11.75	13.45	16.39	16.64	17.62	17.85	19.55
	8H	10.35	10.57	11.58	11.78	13.51	16.61	16.83	17.84	18.04	19.77