

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: P938275

Luminaire Tested: SQ4-FB-150U-050D-940-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938275
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-940-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

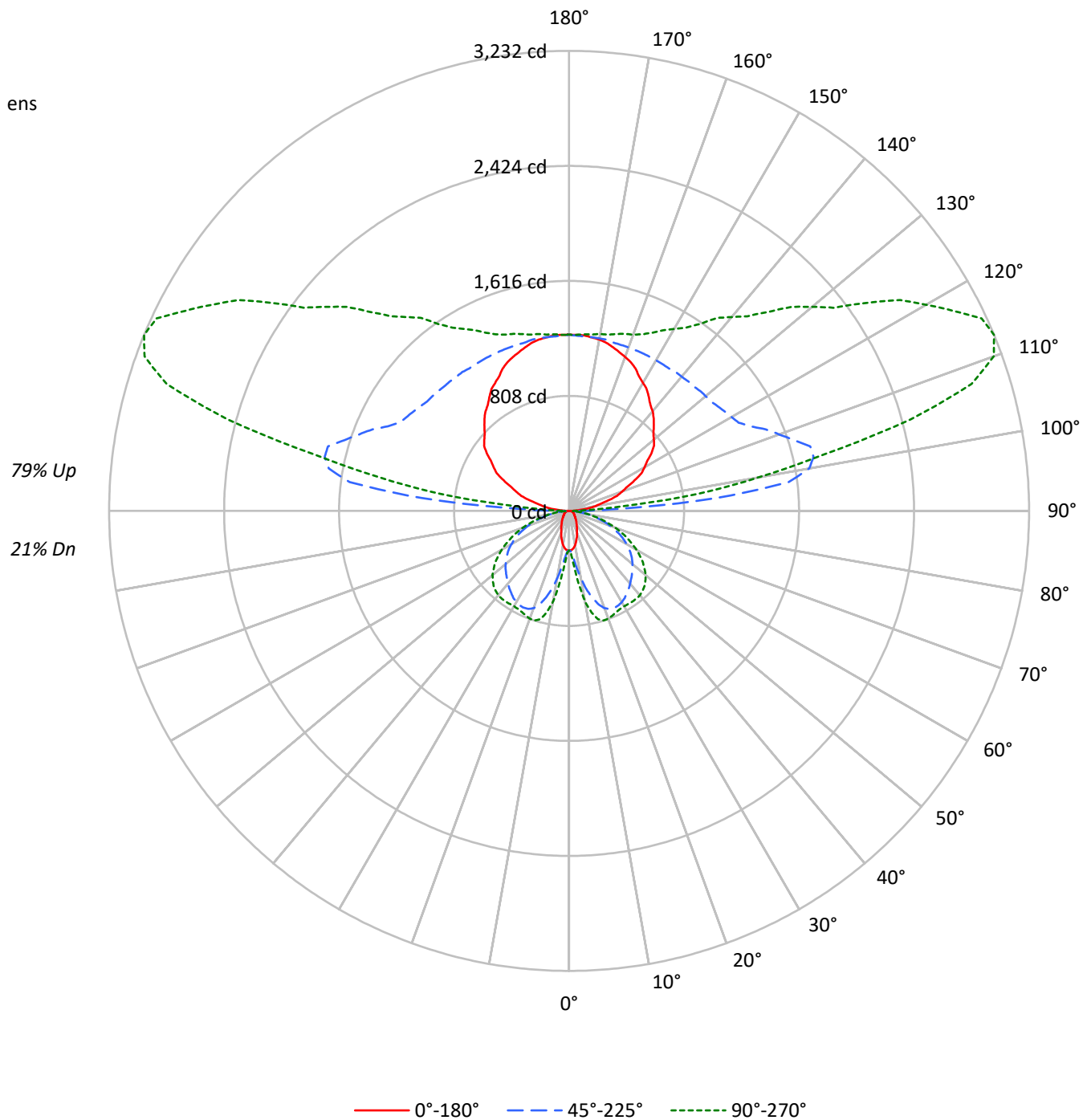
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10178.3 lumens
Efficiency: N/A
Efficacy: 122.0 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 (Ain): 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	50	30	10	0
RCR																					
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1719	1719	1719
5°	1679	1986	2310
10°	1522	2894	3829
15°	1292	3780	4624
20°	1052	4379	4713
25°	878	4581	4617
30°	739	4609	4608
35°	654	4531	4727
40°	569	4431	4850
45°	515	4356	4869
50°	472	4290	4789
55°	452	4192	4577
60°	463	4007	4241
65°	479	3724	3780
70°	510	3246	3194
75°	563	2643	2493
80°	609	1831	1679
85°	537	970	860

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4869 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	0.4
10°-20°	159.3	1.6
20°-30°	278.6	2.7
30°-40°	358.6	3.5
40°-50°	400.5	3.9
50°-60°	383.6	3.8
60°-70°	304.0	3.0
70°-80°	178.8	1.8
80°-90°	54.4	0.5
90°-100°	603.4	5.9
100°-110°	1586.4	15.6
110°-120°	1644.9	16.2
120°-130°	1319.4	13.0
130°-140°	1035.3	10.2
140°-150°	794.6	7.8
150°-160°	572.2	5.6
160°-170°	350.1	3.4
170°-180°	118.3	1.2
0°-30°	473.8	4.7
0°-40°	832.4	8.2
0°-60°	1616.5	15.9
0°-90°	2153.7	21.2
90°-120°	3834.7	37.7
90°-150°	6983.9	68.6
90°-180°	8025.0	78.8
0°-180°	10178.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	278	278	278	278	278	
5°	271	290	327	370	383	25
15°	203	374	631	765	789	56
25°	130	424	751	784	785	60
35°	88	406	707	748	777	55
45°	60	323	625	716	748	46
55°	43	205	531	616	633	39
65°	34	109	394	443	449	34
75°	25	67	216	238	238	26
85°	9	20	54	59	60	9
90°	8	23	63	32	32	7
95°	80	312	1039	536	365	89
105°	286	433	1754	2663	2484	303
115°	508	616	1405	2802	3198	501
125°	706	792	1278	2159	2547	627
135°	842	926	1238	1743	1976	651
145°	976	1038	1222	1487	1603	612
155°	1103	1134	1222	1342	1381	507
165°	1190	1206	1222	1270	1286	336
175°	1238	1238	1230	1246	1246	118
180°	1238	1238	1238	1238	1238	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	277.8	277.8	277.8	277.8	277.8	277.8	277.8	277.8	277.8	277.8	277.8
2.5°	277.8	277.8	279.5	280.4	282.3	283.2	285.0	286.7	292.1	293.0	294.7
5°	270.7	274.2	285.8	290.3	302.8	319.8	326.9	338.5	362.7	369.8	374.3
7.5°	259.9	268.0	296.5	303.7	335.0	379.6	398.4	423.4	461.8	480.6	495.8
10°	243.0	259.9	310.8	327.8	378.7	446.6	481.5	516.3	574.4	600.2	610.1
12.5°	224.2	251.9	326.0	349.3	422.5	521.6	563.6	602.1	668.1	702.9	708.3
15°	202.7	240.3	340.3	374.3	469.0	584.1	630.6	678.0	739.6	764.6	770.9
17.5°	184.0	231.3	353.7	389.5	504.7	640.4	687.8	727.1	777.1	794.0	798.5
20°	160.8	217.0	362.7	409.1	542.2	681.5	727.1	757.5	791.4	802.1	803.9
22.5°	143.8	201.8	368.0	416.2	567.2	706.5	744.9	769.0	792.3	795.8	796.7
25°	129.6	184.9	367.1	424.3	588.7	721.7	751.2	769.0	782.4	784.2	784.2
27.5°	116.2	166.1	363.5	426.1	604.7	725.3	748.5	761.0	767.2	770.9	770.9
30°	104.5	148.3	354.6	422.5	611.8	721.7	740.5	746.7	752.9	758.4	761.0
32.5°	95.5	131.3	341.2	415.3	612.7	712.8	726.2	729.8	738.6	751.2	755.7
35°	87.6	114.4	326.0	405.5	607.4	698.5	707.4	711.0	728.9	747.6	753.8
37.5°	79.5	101.9	306.4	388.6	599.3	681.5	687.8	694.1	721.7	744.1	751.2
40°	71.5	91.1	283.2	369.8	586.9	660.9	666.4	676.1	712.8	738.6	745.8
42.5°	65.2	82.1	258.1	350.1	570.7	637.8	645.8	660.1	702.1	729.8	737.8
45°	59.9	73.3	231.3	323.3	550.2	613.6	625.2	644.9	689.5	716.3	723.5
47.5°	54.5	67.0	203.6	295.6	527.9	589.5	604.7	627.0	672.6	698.5	704.7
50°	50.0	60.7	176.0	266.1	503.8	563.6	581.5	604.7	651.2	675.2	683.3
52.5°	46.4	55.4	150.1	236.7	476.1	536.8	557.4	581.5	625.2	648.5	653.8
55°	42.9	50.9	127.7	205.4	447.5	508.2	530.6	553.8	596.6	616.3	619.9
57.5°	41.1	47.3	109.0	176.0	417.1	476.1	501.1	522.5	562.7	577.9	581.5
60°	38.5	44.7	94.7	151.0	384.1	445.7	467.2	488.6	522.5	535.0	537.7
62.5°	35.7	42.9	84.0	126.8	350.1	410.0	431.4	451.1	479.6	488.6	492.1
65°	33.9	41.1	75.9	109.0	315.3	372.4	393.9	410.9	434.1	443.0	444.8
67.5°	32.1	39.3	69.7	93.8	280.4	335.0	351.0	367.1	384.9	393.9	394.8
70°	29.5	37.5	64.3	83.0	244.7	292.1	305.5	322.4	336.7	341.2	343.9
72.5°	27.7	34.8	60.7	75.0	208.1	250.9	263.5	273.3	285.8	290.3	290.3
75°	25.0	31.3	57.2	67.0	170.6	205.4	216.1	226.0	235.8	237.6	234.9
77.5°	22.3	27.7	49.1	56.3	133.1	162.6	171.5	176.9	184.9	186.7	187.5
80°	18.7	24.2	38.5	43.8	96.4	119.7	125.9	130.4	137.6	137.6	139.3
82.5°	14.3	18.7	27.7	31.3	65.2	82.1	87.6	90.2	94.7	94.7	94.7
85°	9.0	11.6	17.8	20.5	39.3	50.0	53.6	54.5	58.1	59.0	59.0
87.5°	4.4	6.2	11.6	12.5	20.5	25.9	25.9	27.7	27.7	26.8	25.9
90°	8.3	15.0	21.6	23.3	36.6	54.3	63.1	56.1	42.1	31.6	31.6
92.5°	33.2	89.7	146.3	160.4	225.5	312.2	355.6	311.6	223.8	157.9	151.6
95°	79.7	183.1	286.6	312.4	554.7	877.8	1039.3	927.4	703.7	535.8	516.8
97.5°	137.9	229.1	320.3	343.1	747.2	1285.9	1555.2	1484.6	1343.1	1237.1	1200.8
100°	182.8	265.5	348.2	368.9	817.2	1415.0	1713.9	1719.1	1729.5	1737.2	1694.1
102.5°	221.0	298.2	375.4	394.6	849.4	1455.6	1758.8	1848.8	2029.0	2164.1	2127.2
105°	285.8	351.1	416.5	432.8	873.2	1460.2	1753.8	1955.7	2359.7	2662.7	2642.8
107.5°	352.3	413.2	474.1	489.3	877.5	1395.2	1654.1	1935.8	2499.3	2921.9	2926.7
110°	397.1	452.2	507.1	520.9	871.0	1337.6	1571.0	1885.9	2515.9	2988.3	3009.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	441.2	493.6	545.9	559.1	871.2	1287.3	1495.4	1817.7	2462.4	2945.9	2977.7
115°	507.6	556.0	604.4	616.4	879.2	1229.6	1404.8	1715.3	2336.4	2802.2	2846.2
117.5°	573.2	617.2	661.1	672.1	895.6	1193.6	1342.6	1622.8	2183.2	2603.6	2652.5
120°	611.5	652.9	694.2	704.5	908.9	1181.4	1317.6	1573.7	2085.8	2469.9	2517.3
122.5°	648.9	690.6	732.3	742.7	928.0	1175.0	1298.5	1529.1	1990.3	2336.2	2382.9
125°	706.1	744.1	782.2	791.7	953.7	1169.8	1277.7	1473.6	1865.3	2159.2	2202.2
127.5°	752.7	791.0	829.5	839.1	979.5	1166.7	1260.2	1428.4	1764.8	2017.1	2053.5
130°	777.6	819.0	860.4	870.7	998.4	1168.6	1253.7	1403.4	1702.8	1927.4	1961.0
132.5°	803.4	844.8	886.1	896.4	1013.6	1169.8	1247.8	1381.8	1649.9	1850.9	1881.1
135°	841.6	879.2	916.9	926.4	1030.2	1168.6	1237.9	1350.1	1574.6	1743.0	1768.9
137.5°	880.6	917.9	955.2	964.5	1055.1	1175.8	1236.2	1331.1	1520.9	1663.2	1684.4
140°	913.0	947.4	981.7	990.3	1070.3	1177.0	1230.4	1312.4	1476.3	1599.3	1619.1
142.5°	937.9	969.7	1001.5	1009.4	1083.1	1181.3	1230.4	1302.4	1446.4	1554.4	1571.4
145°	976.2	1003.9	1031.6	1038.5	1099.7	1181.3	1222.1	1280.9	1398.8	1487.1	1500.0
147.5°	1014.4	1041.4	1068.3	1075.0	1124.0	1189.4	1222.1	1268.4	1361.0	1430.6	1441.3
150°	1039.3	1063.6	1088.0	1094.1	1136.7	1193.6	1222.1	1261.2	1339.5	1398.2	1406.9
152.5°	1065.1	1083.5	1102.0	1106.6	1145.1	1196.4	1222.1	1255.5	1322.3	1372.4	1379.0
155°	1103.3	1116.9	1130.6	1134.0	1163.4	1202.5	1222.1	1248.6	1301.8	1341.7	1346.0
157.5°	1131.5	1144.8	1158.1	1161.4	1181.7	1208.6	1222.1	1242.8	1284.1	1315.1	1318.1
160°	1150.7	1161.0	1171.3	1173.8	1189.9	1211.3	1222.1	1239.8	1275.3	1301.8	1303.6
162.5°	1169.8	1177.5	1185.2	1187.2	1198.8	1214.3	1222.1	1237.0	1266.9	1289.4	1291.1
165°	1190.5	1197.6	1204.5	1206.3	1211.5	1218.5	1222.1	1232.8	1254.2	1270.3	1272.1
167.5°	1209.6	1212.9	1216.3	1217.1	1221.5	1227.5	1230.4	1237.4	1251.5	1261.9	1262.6
170°	1222.1	1225.4	1228.7	1229.5	1229.8	1230.2	1230.4	1237.4	1251.5	1261.9	1261.9
172.5°	1228.7	1229.4	1230.2	1230.4	1230.4	1230.4	1230.4	1235.9	1247.0	1255.3	1254.7
175°	1237.9	1237.9	1237.9	1237.9	1235.4	1232.1	1230.4	1233.9	1240.9	1246.1	1246.1
177.5°	1237.9	1237.9	1237.9	1237.9	1235.9	1233.3	1232.0	1234.8	1240.4	1244.5	1243.8
180°	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9	1237.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	277.8	277.8
2.5°	296.5	294.7
5°	381.4	383.2
7.5°	513.6	512.7
10°	638.6	646.6
12.5°	729.8	731.5
15°	785.2	788.7
17.5°	806.6	807.5
20°	807.5	805.7
22.5°	797.6	795.8
25°	786.1	785.2
27.5°	775.3	776.2
30°	770.9	773.5
32.5°	770.9	775.3
35°	772.6	777.1
37.5°	771.8	777.1
40°	768.1	774.4
42.5°	758.4	762.8
45°	743.2	748.5
47.5°	723.5	727.1
50°	698.5	702.1
52.5°	667.2	668.1
55°	629.7	633.3
57.5°	589.5	590.4
60°	544.9	547.5
62.5°	497.5	497.5
65°	447.5	449.2
67.5°	395.7	400.1
70°	343.0	343.9
72.5°	291.2	291.2
75°	237.6	238.5
77.5°	186.7	186.7
80°	138.4	139.3
82.5°	95.5	97.3
85°	59.9	59.9
87.5°	27.7	25.0
90°	31.6	31.6
92.5°	126.5	101.3
95°	440.7	364.7
97.5°	1056.1	911.4
100°	1521.7	1349.2
102.5°	1979.5	1831.9
105°	2563.4	2484.0
107.5°	2945.9	2965.0
110°	3091.7	3174.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3104.7	3231.7
115°	3022.3	3198.5
117.5°	2847.8	3043.2
120°	2707.2	2896.9
122.5°	2570.1	2757.3
125°	2374.7	2547.1
127.5°	2199.0	2344.5
130°	2095.4	2229.8
132.5°	2001.4	2121.8
135°	1872.7	1976.4
137.5°	1769.4	1854.3
140°	1698.5	1777.9
142.5°	1639.8	1708.1
145°	1551.7	1603.4
147.5°	1484.1	1527.0
150°	1441.6	1476.3
152.5°	1405.2	1431.5
155°	1363.3	1380.8
157.5°	1330.4	1342.6
160°	1310.6	1317.6
162.5°	1297.6	1304.3
165°	1279.0	1286.0
167.5°	1265.7	1268.6
170°	1261.9	1261.9
172.5°	1252.1	1249.5
175°	1246.1	1246.1
177.5°	1240.8	1237.9
180°	1237.9	1237.9



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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	0.00	0.47	1.13	2.76	12.47	13.14	13.64	14.29	15.92
	3H	0.00	0.59	1.17	1.75	3.40	14.29	14.89	15.46	16.05	17.69
	4H	0.29	0.85	1.47	2.01	3.66	14.92	15.49	16.10	16.65	18.30
	6H	0.53	1.05	1.72	2.21	3.87	15.34	15.86	16.53	17.02	18.68
	8H	0.59	1.08	1.78	2.26	3.91	15.45	15.95	16.64	17.13	18.78
	12H	0.60	1.07	1.79	2.24	3.92	15.51	15.98	16.70	17.15	18.83
4H	2H	6.49	7.05	7.68	8.22	9.86	12.72	13.29	13.91	14.45	16.10
	3H	8.04	8.51	9.23	9.70	11.36	14.74	15.22	15.94	16.40	18.06
	4H	8.12	8.56	9.32	9.74	11.41	15.50	15.93	16.69	17.11	18.79
	6H	8.12	8.50	9.32	9.69	11.36	16.02	16.39	17.22	17.59	19.26
	8H	8.09	8.44	9.29	9.63	11.32	16.17	16.52	17.37	17.71	19.40
	12H	8.04	8.36	9.26	9.56	11.25	16.26	16.57	17.47	17.77	19.46
8H	4H	9.55	9.90	10.75	11.09	12.77	15.54	15.89	16.74	17.08	18.76
	6H	9.78	10.07	11.00	11.30	12.98	16.16	16.44	17.37	17.68	19.36
	8H	9.80	10.05	11.02	11.25	12.96	16.37	16.62	17.59	17.83	19.53
	12H	9.75	9.97	10.98	11.18	12.91	16.50	16.72	17.73	17.93	19.66
12H	4H	9.68	10.00	10.89	11.20	12.89	15.48	15.80	16.70	17.00	18.69
	6H	10.04	10.29	11.26	11.49	13.20	16.14	16.39	17.36	17.60	19.30
	8H	10.09	10.31	11.32	11.52	13.25	16.35	16.57	17.58	17.78	19.51