

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: P936621

Luminaire Tested: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936621
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

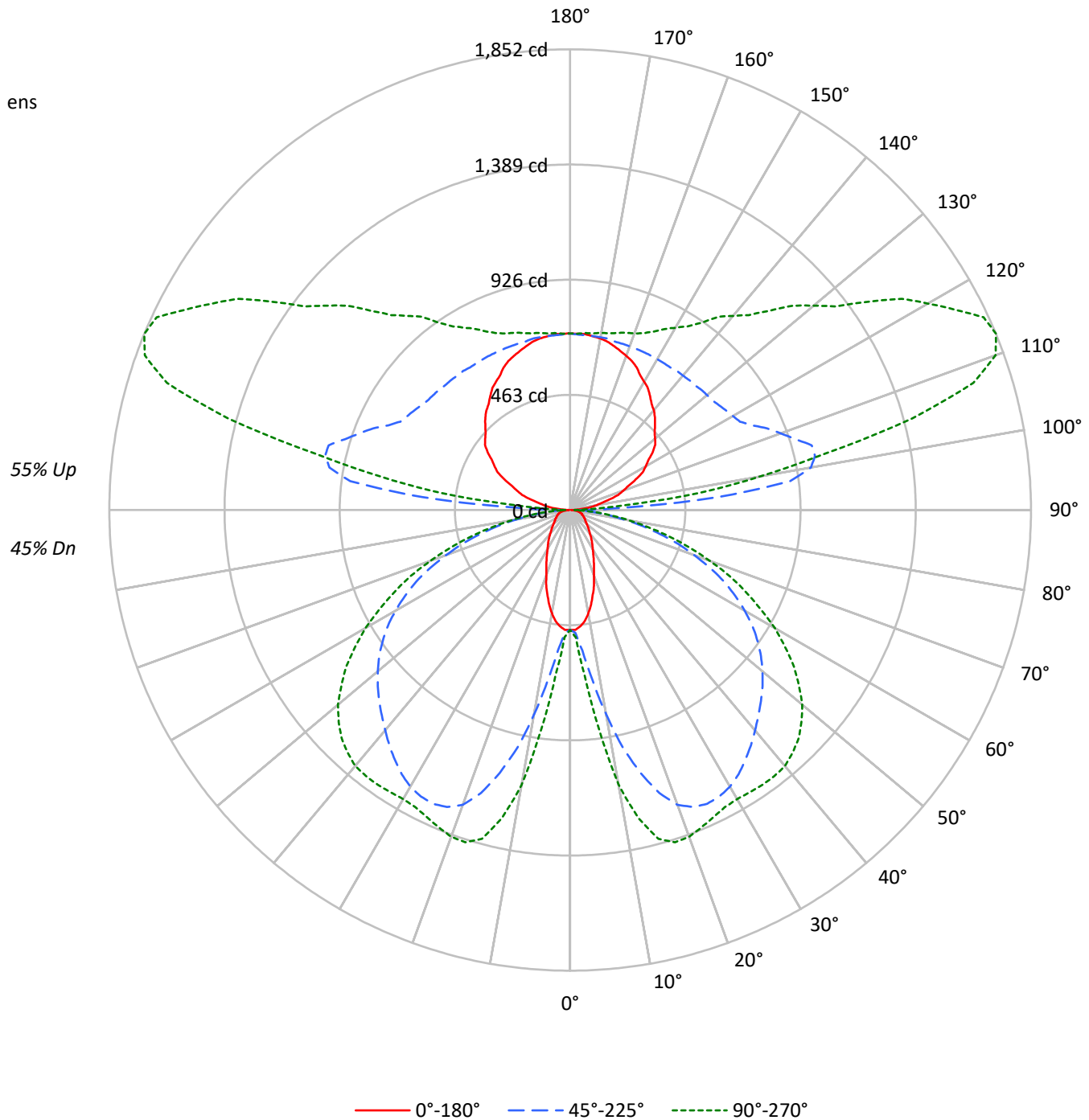
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8329.1 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 85.2
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

TEST NUMBER: P936621
CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P936621

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37	37	37	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1491	1491	1491
5°	1457	1723	2003
10°	1322	2512	3321
15°	1124	3283	4010
20°	915	3805	4087
25°	764	3983	4004
30°	644	4009	3996
35°	570	3944	4100
40°	497	3858	4207
45°	450	3796	4223
50°	414	3740	4153
55°	396	3658	3969
60°	406	3499	3678
65°	424	3257	3279
70°	452	2842	2770
75°	503	2319	2161
80°	554	1610	1457
85°	502	855	745

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4223 cd/sqm



TEST NUMBER: P936621

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	0.7
10°-20°	276.2	3.3
20°-30°	483.2	5.8
30°-40°	622.0	7.5
40°-50°	694.8	8.3
50°-60°	665.4	8.0
60°-70°	527.4	6.3
70°-80°	310.1	3.7
80°-90°	88.9	1.1
90°-100°	345.8	4.2
100°-110°	909.1	10.9
110°-120°	942.7	11.3
120°-130°	756.1	9.1
130°-140°	593.3	7.1
140°-150°	455.4	5.5
150°-160°	328.0	3.9
160°-170°	200.7	2.4
170°-180°	67.8	0.8
0°-30°	821.8	9.9
0°-40°	1443.8	17.3
0°-60°	2804.0	33.7
0°-90°	3730.3	44.8
90°-120°	2197.6	26.4
90°-150°	4002.4	48.1
90°-180°	4599.0	55.2
0°-180°	8329.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	470	504	567	641	665	43
15°	352	649	1094	1326	1368	98
25°	225	736	1303	1360	1362	103
35°	152	703	1227	1297	1348	95
45°	104	561	1084	1242	1298	80
55°	74	356	920	1069	1098	68
65°	59	189	683	768	779	58
75°	43	116	375	412	414	45
85°	16	36	93	102	104	16
90°	5	13	36	18	18	5
95°	46	179	596	307	209	51
105°	164	248	1005	1526	1424	174
115°	291	353	805	1606	1833	287
125°	405	454	732	1237	1460	359
135°	482	531	709	999	1133	373
145°	559	595	700	852	919	350
155°	632	650	700	769	791	291
165°	682	691	700	728	737	193
175°	709	709	705	714	714	67
180°	709	709	709	709	709	



TEST NUMBER: P936621

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	481.9	481.9	484.9	486.5	489.6	491.1	494.3	497.3	506.7	508.2	511.3
5°	469.5	475.6	495.8	503.5	525.2	554.6	567.0	587.2	629.0	641.4	649.2
7.5°	450.8	464.8	514.4	526.8	581.0	658.5	691.0	734.4	801.0	833.5	859.9
10°	421.4	450.8	539.2	568.6	656.9	774.7	835.1	895.5	996.2	1041.2	1058.2
12.5°	388.8	436.9	565.5	605.8	732.8	904.8	977.7	1044.3	1158.9	1219.4	1228.6
15°	351.7	416.8	590.3	649.2	813.4	1013.2	1093.9	1175.9	1282.9	1326.2	1337.1
17.5°	319.2	401.2	613.5	675.5	875.4	1110.9	1193.0	1261.2	1348.0	1377.4	1385.2
20°	278.9	376.5	629.0	709.6	940.5	1182.2	1261.2	1313.9	1372.8	1391.3	1394.4
22.5°	249.5	350.1	638.3	722.0	983.8	1225.5	1292.1	1334.0	1374.3	1380.5	1382.0
25°	224.7	320.7	636.8	736.0	1021.0	1251.9	1303.0	1334.0	1357.2	1360.4	1360.4
27.5°	201.4	288.2	630.6	739.0	1048.9	1258.1	1298.4	1320.0	1330.9	1337.1	1337.1
30°	181.3	257.2	615.1	732.8	1061.3	1251.9	1284.4	1295.3	1306.1	1315.4	1320.0
32.5°	165.8	227.8	591.8	720.4	1062.8	1236.4	1259.6	1265.8	1281.3	1303.0	1310.8
35°	151.8	198.4	565.5	703.4	1053.6	1211.6	1227.1	1233.3	1264.3	1296.8	1307.6
37.5°	137.9	176.6	531.5	674.0	1039.6	1182.2	1193.0	1203.8	1251.9	1290.6	1303.0
40°	124.0	158.0	491.1	641.4	1017.9	1146.5	1155.8	1172.9	1236.4	1281.3	1293.7
42.5°	113.1	142.5	447.8	607.4	990.1	1106.3	1120.2	1145.0	1217.8	1265.8	1279.7
45°	103.8	127.0	401.2	560.9	954.4	1064.4	1084.5	1118.7	1196.1	1242.5	1254.9
47.5°	94.5	116.2	353.3	512.8	915.7	1022.6	1048.9	1087.6	1166.6	1211.6	1222.5
50°	86.8	105.3	305.2	461.7	873.8	977.7	1008.6	1048.9	1129.5	1171.3	1185.3
52.5°	80.5	96.1	260.3	410.6	825.8	931.2	966.8	1008.6	1084.5	1124.8	1134.1
55°	74.4	88.3	221.5	356.4	776.2	881.6	920.3	960.6	1035.0	1069.1	1075.2
57.5°	71.3	82.1	189.0	305.2	723.6	825.8	869.2	906.4	976.1	1002.5	1008.6
60°	66.6	77.5	164.2	261.9	666.2	773.2	810.3	847.5	906.4	928.1	932.7
62.5°	62.0	74.4	145.6	220.0	607.4	711.2	748.4	782.4	832.0	847.5	853.7
65°	58.9	71.3	131.7	189.0	546.9	646.1	683.3	712.7	753.0	768.5	771.5
67.5°	55.7	68.1	120.8	162.7	486.5	581.0	608.9	636.8	667.7	683.3	684.8
70°	51.1	65.1	111.6	144.1	424.5	506.7	529.9	559.3	584.1	591.8	596.5
72.5°	48.0	60.4	105.3	130.1	361.0	435.4	457.1	474.1	495.8	503.5	503.5
75°	43.4	54.2	99.2	116.2	295.9	356.4	374.9	392.0	409.0	412.1	407.5
77.5°	38.7	48.0	85.2	97.6	230.8	282.0	297.5	306.8	320.7	323.8	325.3
80°	32.6	41.8	66.6	75.9	167.3	207.6	218.4	226.2	238.6	238.6	241.7
82.5°	24.8	32.6	48.0	54.2	113.1	142.5	151.8	156.5	164.2	164.2	164.2
85°	15.5	20.2	31.0	35.7	68.1	86.8	92.9	94.5	100.7	102.3	102.3
87.5°	7.8	10.9	20.2	21.7	35.7	45.0	45.0	48.0	48.0	46.5	45.0
90°	4.8	8.5	12.4	13.3	20.9	31.1	36.2	32.2	24.1	18.1	18.1
92.5°	19.0	51.4	83.8	91.9	129.1	178.9	203.7	178.6	128.2	90.5	86.9
95°	45.7	105.0	164.2	179.0	317.9	503.0	595.6	531.5	403.2	307.1	296.1
97.5°	79.0	131.3	183.6	196.7	428.2	736.9	891.3	850.8	769.7	708.9	688.2
100°	104.7	152.2	199.5	211.4	468.3	810.9	982.2	985.1	991.1	995.5	970.8
102.5°	126.7	170.9	215.1	226.1	486.7	834.2	1007.9	1059.5	1162.8	1240.2	1219.1
105°	163.8	201.2	238.6	248.0	500.3	836.8	1005.1	1120.8	1352.3	1525.9	1514.5
107.5°	201.9	236.8	271.7	280.4	503.0	799.6	947.9	1109.4	1432.4	1674.5	1677.3
110°	227.6	259.1	290.7	298.5	499.1	766.6	900.4	1080.8	1441.8	1712.6	1724.4



TEST NUMBER: P936621

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	252.8	282.8	312.9	320.4	499.3	737.7	857.0	1041.7	1411.2	1688.3	1706.5
115°	290.9	318.6	346.3	353.3	503.9	704.7	805.1	983.1	1339.0	1605.9	1631.2
117.5°	328.5	353.7	378.8	385.2	513.2	684.0	769.4	930.0	1251.2	1492.1	1520.1
120°	350.4	374.1	397.8	403.7	520.8	677.1	755.1	901.9	1195.3	1415.5	1442.7
122.5°	371.8	395.8	419.6	425.7	531.8	673.4	744.1	876.3	1140.6	1338.8	1365.6
125°	404.7	426.5	448.3	453.8	546.6	670.4	732.3	844.5	1069.0	1237.4	1262.1
127.5°	431.4	453.4	475.4	480.9	561.3	668.6	722.3	818.7	1011.4	1156.0	1176.9
130°	445.7	469.4	493.0	499.0	572.1	669.7	718.5	804.3	975.9	1104.6	1123.8
132.5°	460.4	484.1	507.8	513.7	580.9	670.4	715.1	791.9	945.6	1060.8	1078.0
135°	482.3	503.9	525.4	530.8	590.4	669.7	709.4	773.8	902.4	998.9	1013.8
137.5°	504.7	526.1	547.5	552.8	604.7	673.9	708.5	762.8	871.6	953.2	965.3
140°	523.2	542.9	562.6	567.5	613.4	674.5	705.1	752.1	846.1	916.5	927.9
142.5°	537.5	555.7	574.0	578.5	620.7	677.0	705.1	746.4	828.9	890.8	900.6
145°	559.4	575.3	591.1	595.1	630.2	677.0	700.4	734.1	801.6	852.2	859.6
147.5°	581.4	596.8	612.2	616.1	644.2	681.7	700.4	727.0	780.1	819.9	826.1
150°	595.6	609.5	623.5	627.0	651.5	684.1	700.4	722.8	767.6	801.3	806.3
152.5°	610.4	620.9	631.6	634.2	656.3	685.7	700.4	719.6	757.8	786.6	790.3
155°	632.2	640.1	648.0	649.9	666.7	689.2	700.4	715.6	746.1	768.9	771.4
157.5°	648.5	656.1	663.7	665.6	677.2	692.7	700.4	712.2	735.9	753.7	755.4
160°	659.4	665.4	671.3	672.7	682.0	694.2	700.4	710.6	730.8	746.1	747.1
162.5°	670.4	674.8	679.3	680.4	687.1	695.9	700.4	708.9	726.0	738.9	739.8
165°	682.3	686.3	690.3	691.3	694.3	698.4	700.4	706.6	718.8	728.0	729.0
167.5°	693.2	695.1	697.0	697.5	700.0	703.4	705.1	709.1	717.2	723.2	723.6
170°	700.4	702.2	704.2	704.6	704.8	705.0	705.1	709.1	717.2	723.2	723.2
172.5°	704.2	704.6	705.0	705.1	705.1	705.1	705.1	708.2	714.6	719.4	719.0
175°	709.4	709.4	709.4	709.4	707.9	706.0	705.1	707.1	711.2	714.2	714.2
177.5°	709.4	709.4	709.4	709.4	708.3	706.9	706.1	707.7	710.9	713.3	712.8
180°	709.4	709.4	709.4	709.4	709.4	709.4	709.4	709.4	709.4	709.4	709.4



TEST NUMBER: P936621

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	481.9	481.9
2.5°	514.4	511.3
5°	661.6	664.7
7.5°	890.9	889.4
10°	1107.8	1121.7
12.5°	1265.8	1268.9
15°	1361.9	1368.1
17.5°	1399.1	1400.6
20°	1400.6	1397.6
22.5°	1383.5	1380.5
25°	1363.4	1361.9
27.5°	1344.8	1346.4
30°	1337.1	1341.7
32.5°	1337.1	1344.8
35°	1340.2	1348.0
37.5°	1338.6	1348.0
40°	1332.4	1343.3
42.5°	1315.4	1323.2
45°	1289.1	1298.4
47.5°	1254.9	1261.2
50°	1211.6	1217.8
52.5°	1157.4	1158.9
55°	1092.3	1098.5
57.5°	1022.6	1024.1
60°	945.1	949.7
62.5°	863.0	863.0
65°	776.2	779.3
67.5°	686.4	694.1
70°	595.0	596.5
72.5°	505.1	505.1
75°	412.1	413.6
77.5°	323.8	323.8
80°	240.2	241.7
82.5°	165.8	168.9
85°	103.8	103.8
87.5°	48.0	43.4
90°	18.1	18.1
92.5°	72.5	58.1
95°	252.6	209.0
97.5°	605.2	522.3
100°	872.0	773.2
102.5°	1134.4	1049.8
105°	1469.1	1423.6
107.5°	1688.2	1699.2
110°	1771.8	1819.2



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CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1779.3	1852.1
115°	1732.1	1833.1
117.5°	1632.0	1744.0
120°	1551.5	1660.2
122.5°	1472.9	1580.2
125°	1360.9	1459.8
127.5°	1260.2	1343.6
130°	1200.9	1277.9
132.5°	1147.0	1216.0
135°	1073.2	1132.7
137.5°	1014.0	1062.7
140°	973.4	1018.9
142.5°	939.8	978.9
145°	889.3	918.9
147.5°	850.5	875.1
150°	826.1	846.1
152.5°	805.3	820.4
155°	781.4	791.3
157.5°	762.4	769.4
160°	751.1	755.1
162.5°	743.7	747.5
165°	733.0	737.0
167.5°	725.3	727.0
170°	723.2	723.2
172.5°	717.6	716.1
175°	714.2	714.2
177.5°	711.1	709.4
180°	709.4	709.4



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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	1.90	2.75	2.89	3.76	5.10	15.09	15.94	16.09	16.95	18.29
	3H	2.60	3.37	3.61	4.39	5.75	16.94	17.70	17.94	18.72	20.08
	4H	2.90	3.63	3.92	4.65	6.02	17.59	18.31	18.60	19.33	20.70
	6H	3.15	3.82	4.18	4.84	6.23	18.02	18.69	19.05	19.71	21.10
	8H	3.22	3.86	4.25	4.90	6.28	18.14	18.78	19.17	19.82	21.20
	12H	3.24	3.84	4.27	4.88	6.28	18.21	18.82	19.25	19.85	21.26
4H	2H	9.12	9.85	10.15	10.87	12.24	15.37	16.09	16.39	17.11	18.48
	3H	10.69	11.29	11.72	12.34	13.73	17.42	18.02	18.45	19.07	20.45
	4H	10.78	11.34	11.82	12.38	13.79	18.18	18.74	19.22	19.78	21.19
	6H	10.79	11.27	11.84	12.34	13.74	18.73	19.21	19.78	20.27	21.67
	8H	10.77	11.22	11.82	12.27	13.69	18.89	19.34	19.94	20.40	21.81
	12H	10.73	11.13	11.79	12.20	13.62	18.99	19.39	20.06	20.47	21.89
8H	4H	12.23	12.68	13.28	13.74	15.15	18.24	18.69	19.29	19.75	21.17
	6H	12.47	12.84	13.55	13.94	15.36	18.88	19.25	19.95	20.35	21.76
	8H	12.49	12.82	13.57	13.90	15.33	19.10	19.43	20.18	20.51	21.94
	12H	12.46	12.74	13.54	13.82	15.30	19.25	19.53	20.33	20.61	22.09
12H	4H	12.37	12.78	13.44	13.85	15.27	18.20	18.60	19.27	19.67	21.10
	6H	12.73	13.06	13.81	14.14	15.57	18.86	19.19	19.94	20.27	21.70
	8H	12.80	13.09	13.89	14.17	15.64	19.09	19.38	20.18	20.46	21.93