

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: P937444

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937444
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

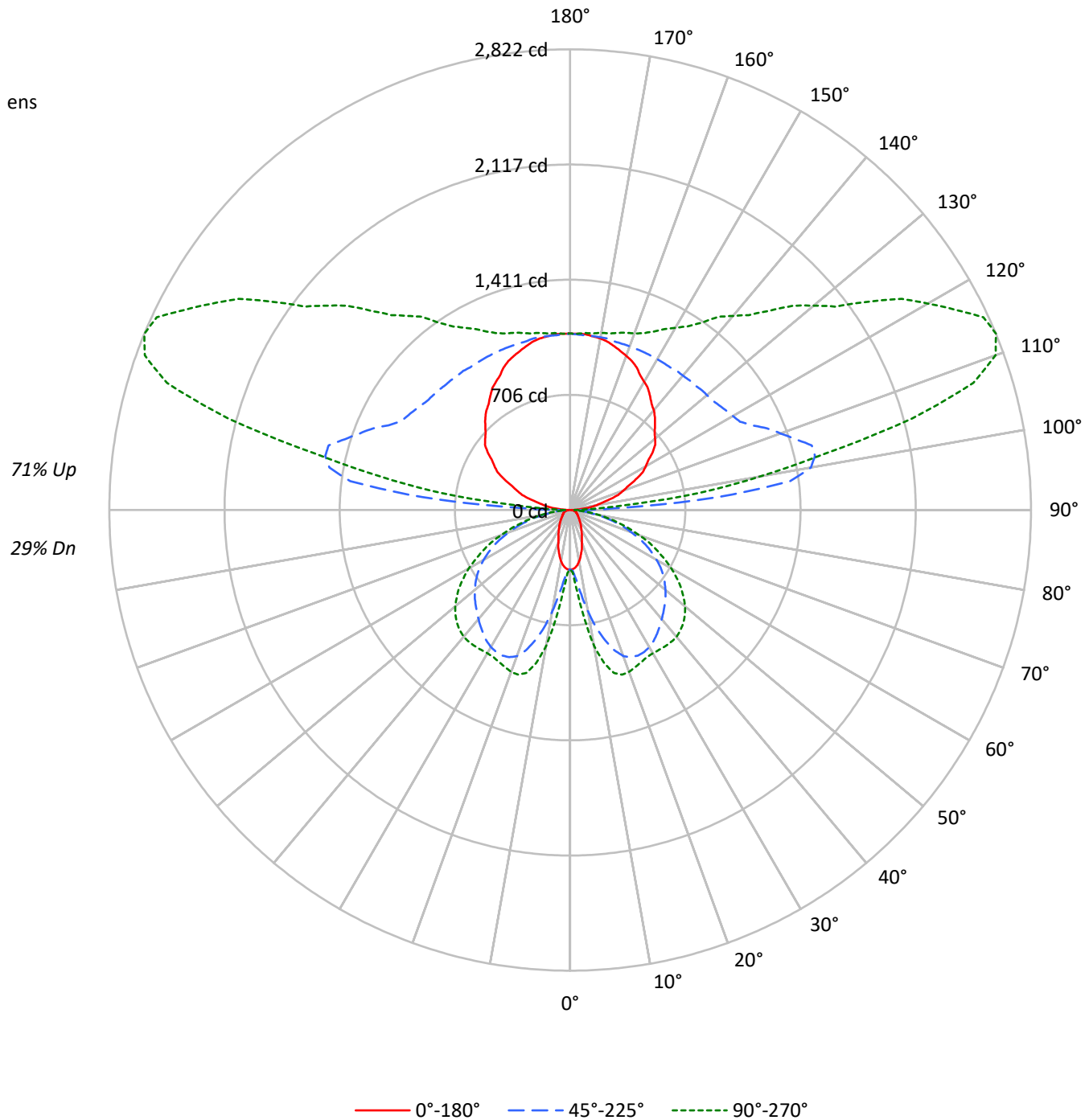
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9825.2 lumens
Efficiency: N/A
Efficacy: 119.2 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-Indirect

Input Watts (W): 82.4
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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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	50	30	10
RCR																							
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29					29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23					23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19					19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16					16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13					13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11					11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10					10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8					8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7					7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7					7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6					6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1687	1687	1687
5°	1649	1951	2269
10°	1495	2844	3761
15°	1271	3715	4541
20°	1035	4305	4628
25°	863	4505	4534
30°	728	4533	4526
35°	643	4458	4643
40°	561	4360	4764
45°	508	4289	4782
50°	466	4224	4703
55°	447	4129	4495
60°	457	3948	4165
65°	476	3673	3714
70°	506	3203	3137
75°	562	2612	2448
80°	614	1811	1649
85°	545	961	845

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4782 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	0.5
10°-20°	208.5	2.1
20°-30°	364.8	3.7
30°-40°	469.6	4.8
40°-50°	524.5	5.3
50°-60°	502.4	5.1
60°-70°	398.1	4.1
70°-80°	234.1	2.4
80°-90°	69.2	0.7
90°-100°	526.9	5.4
100°-110°	1385.2	14.1
110°-120°	1436.3	14.6
120°-130°	1152.1	11.7
130°-140°	904.0	9.2
140°-150°	693.8	7.1
150°-160°	499.7	5.1
160°-170°	305.7	3.1
170°-180°	103.3	1.1
0°-30°	620.4	6.3
0°-40°	1090.0	11.1
0°-60°	2116.8	21.5
0°-90°	2818.2	28.7
90°-120°	3348.4	34.1
90°-150°	6098.3	62.1
90°-180°	7007.0	71.3
0°-180°	9825.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	364	364	364	364	364	
5°	354	380	428	484	502	33
15°	266	490	826	1001	1033	74
25°	170	556	984	1027	1028	78
35°	115	531	926	979	1018	72
45°	78	423	819	938	980	61
55°	56	269	695	807	829	51
65°	44	143	516	580	588	44
75°	33	88	283	311	312	34
85°	12	27	70	77	78	12
90°	7	20	55	28	28	7
95°	70	273	908	468	318	77
105°	250	378	1531	2325	2169	265
115°	443	538	1227	2447	2793	438
125°	617	691	1116	1885	2224	547
135°	735	809	1081	1522	1726	569
145°	852	907	1067	1298	1400	534
155°	963	990	1067	1172	1206	443
165°	1040	1053	1067	1109	1123	293
175°	1081	1081	1074	1088	1088	103
180°	1081	1081	1081	1081	1081	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7
2.5°	363.7	363.7	366.1	367.3	369.6	370.8	373.1	375.5	382.5	383.6	386.0
5°	354.4	359.1	374.3	380.1	396.5	418.8	428.1	443.3	474.9	484.2	490.1
7.5°	340.4	350.9	388.3	397.6	438.6	497.1	521.7	554.4	604.7	629.3	649.1
10°	318.1	340.4	407.1	429.3	495.9	584.8	630.5	676.1	752.0	786.0	798.9
12.5°	293.6	329.8	426.9	457.3	553.2	683.1	738.1	788.3	874.9	920.5	927.5
15°	265.5	314.6	445.6	490.1	614.1	764.9	825.8	887.7	968.5	1001.2	1009.4
17.5°	240.9	302.9	463.2	510.0	660.8	838.6	900.6	952.1	1017.6	1039.8	1045.7
20°	210.5	284.2	474.9	535.7	710.0	892.4	952.1	991.9	1036.3	1050.4	1052.7
22.5°	188.3	264.3	481.9	545.0	742.7	925.2	975.5	1007.1	1037.5	1042.2	1043.3
25°	169.6	242.1	480.8	555.6	770.8	945.1	983.7	1007.1	1024.6	1027.0	1027.0
27.5°	152.1	217.6	476.0	557.9	791.9	949.7	980.2	996.6	1004.8	1009.4	1009.4
30°	136.8	194.2	464.4	553.2	801.2	945.1	969.6	977.8	986.0	993.1	996.6
32.5°	125.1	172.0	446.8	543.9	802.4	933.3	951.0	955.6	967.3	983.7	989.5
35°	114.6	149.7	426.9	531.0	795.4	914.7	926.4	931.1	954.4	979.0	987.1
37.5°	104.1	133.3	401.2	508.8	784.8	892.4	900.6	908.8	945.1	974.3	983.7
40°	93.6	119.3	370.8	484.2	768.4	865.6	872.6	885.5	933.3	967.3	976.7
42.5°	85.4	107.6	338.0	458.5	747.4	835.1	845.7	864.4	919.4	955.6	966.1
45°	78.4	95.9	302.9	423.4	720.5	803.6	818.8	844.5	903.0	938.0	947.4
47.5°	71.3	87.7	266.7	387.2	691.3	772.0	791.9	821.1	880.8	914.7	922.9
50°	65.5	79.5	230.4	348.6	659.7	738.1	761.5	791.9	852.7	884.2	894.8
52.5°	60.8	72.6	196.5	309.9	623.4	702.9	729.9	761.5	818.8	849.2	856.2
55°	56.2	66.7	167.3	269.0	586.0	665.5	694.7	725.2	781.3	807.1	811.8
57.5°	53.8	62.0	142.7	230.4	546.2	623.4	656.2	684.3	736.9	756.8	761.5
60°	50.3	58.5	124.0	197.7	503.0	583.7	611.7	639.8	684.3	700.6	704.2
62.5°	46.8	56.2	110.0	166.1	458.5	536.9	564.9	590.7	628.1	639.8	644.5
65°	44.5	53.8	99.4	142.7	412.9	487.7	515.8	538.0	568.5	580.2	582.5
67.5°	42.1	51.5	91.2	122.8	367.3	438.6	459.6	480.8	504.1	515.8	516.9
70°	38.6	49.1	84.2	108.7	320.5	382.5	400.0	422.2	441.0	446.8	450.3
72.5°	36.3	45.6	79.5	98.3	272.5	328.7	345.1	357.9	374.3	380.1	380.1
75°	32.8	40.9	74.8	87.7	223.4	269.0	283.1	295.9	308.8	311.1	307.7
77.5°	29.2	36.3	64.4	73.7	174.3	212.9	224.5	231.6	242.1	244.4	245.7
80°	24.6	31.6	50.3	57.3	126.4	156.7	164.9	170.7	180.2	180.2	182.4
82.5°	18.7	24.6	36.3	40.9	85.4	107.6	114.6	118.2	124.0	124.0	124.0
85°	11.7	15.2	23.4	26.9	51.5	65.5	70.2	71.3	76.0	77.2	77.2
87.5°	5.8	8.2	15.2	16.4	26.9	33.9	33.9	36.3	36.3	35.1	33.9
90°	7.2	13.1	18.8	20.3	31.9	47.4	55.1	49.0	36.7	27.6	27.6
92.5°	29.0	78.4	127.8	140.0	196.8	272.6	310.4	272.1	195.4	137.9	132.4
95°	69.7	159.9	250.2	272.8	484.3	766.4	907.5	809.9	614.4	467.9	451.4
97.5°	120.4	200.0	279.7	299.6	652.5	1122.8	1358.0	1296.3	1172.8	1080.2	1048.6
100°	159.6	231.8	304.1	322.1	713.6	1235.6	1496.6	1501.1	1510.1	1516.9	1479.2
102.5°	193.0	260.3	327.7	344.5	741.6	1271.0	1535.7	1614.4	1771.8	1889.8	1857.5
105°	249.6	306.6	363.6	377.9	762.4	1275.1	1531.4	1707.7	2060.4	2325.0	2307.7
107.5°	307.6	360.8	414.0	427.3	766.3	1218.3	1444.3	1690.4	2182.4	2551.3	2555.5
110°	346.7	394.8	442.8	454.9	760.5	1168.0	1371.8	1646.8	2196.8	2609.4	2627.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	385.2	431.0	476.8	488.3	760.8	1124.1	1305.8	1587.3	2150.2	2572.4	2600.1
115°	443.3	485.5	527.8	538.3	767.7	1073.7	1226.7	1497.9	2040.2	2446.9	2485.4
117.5°	500.5	538.9	577.3	586.9	782.0	1042.2	1172.3	1417.0	1906.4	2273.5	2316.1
120°	533.9	570.0	606.2	615.1	793.6	1031.6	1150.6	1374.2	1821.3	2156.7	2198.1
122.5°	566.6	603.0	639.5	648.5	810.3	1025.9	1133.8	1335.2	1737.9	2039.9	2080.8
125°	616.6	649.8	683.1	691.3	832.8	1021.4	1115.7	1286.8	1628.9	1885.4	1923.1
127.5°	657.3	690.7	724.3	732.7	855.3	1018.8	1100.5	1247.4	1541.1	1761.3	1793.1
130°	679.0	715.1	751.2	760.2	871.7	1020.4	1094.7	1225.4	1486.9	1683.0	1712.3
132.5°	701.5	737.6	773.7	782.7	885.0	1021.4	1089.6	1206.6	1440.7	1616.2	1642.5
135°	734.9	767.7	800.7	808.9	899.6	1020.5	1080.9	1178.9	1374.9	1522.0	1544.6
137.5°	769.0	801.5	834.1	842.2	921.3	1026.7	1079.4	1162.2	1328.0	1452.3	1470.9
140°	797.2	827.2	857.2	864.7	934.6	1027.8	1074.3	1145.9	1289.1	1396.5	1413.8
142.5°	819.0	846.7	874.5	881.4	945.7	1031.4	1074.3	1137.2	1263.0	1357.3	1372.2
145°	852.4	876.6	900.8	906.8	960.3	1031.5	1067.1	1118.6	1221.4	1298.5	1309.8
147.5°	885.7	909.3	932.8	938.7	981.6	1038.6	1067.1	1107.6	1188.5	1249.2	1258.5
150°	907.5	928.8	950.1	955.4	992.6	1042.3	1067.1	1101.3	1169.7	1220.9	1228.5
152.5°	930.0	946.2	962.3	966.3	999.9	1044.7	1067.1	1096.3	1154.7	1198.4	1204.2
155°	963.3	975.3	987.2	990.2	1015.8	1050.0	1067.1	1090.3	1136.8	1171.6	1175.3
157.5°	988.0	999.6	1011.3	1014.2	1031.8	1055.3	1067.1	1085.2	1121.3	1148.4	1151.0
160°	1004.8	1013.8	1022.8	1025.1	1039.1	1057.8	1067.1	1082.6	1113.6	1136.8	1138.4
162.5°	1021.4	1028.2	1035.0	1036.7	1046.8	1060.3	1067.1	1080.2	1106.3	1125.9	1127.4
165°	1039.6	1045.7	1051.8	1053.3	1058.0	1064.1	1067.1	1076.4	1095.2	1109.2	1110.8
167.5°	1056.2	1059.1	1062.1	1062.7	1066.6	1071.7	1074.3	1080.5	1092.7	1101.9	1102.5
170°	1067.1	1070.0	1073.0	1073.6	1073.9	1074.2	1074.3	1080.5	1092.7	1101.9	1101.9
172.5°	1073.0	1073.6	1074.2	1074.3	1074.3	1074.3	1074.3	1079.2	1088.9	1096.1	1095.6
175°	1080.9	1080.9	1080.9	1080.9	1078.7	1075.8	1074.3	1077.4	1083.5	1088.1	1088.1
177.5°	1080.9	1080.9	1080.9	1080.9	1079.2	1077.0	1075.8	1078.3	1083.1	1086.7	1086.1
180°	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	363.7	363.7
2.5°	388.3	386.0
5°	499.4	501.8
7.5°	672.5	671.4
10°	836.3	846.8
12.5°	955.6	957.9
15°	1028.1	1032.8
17.5°	1056.2	1057.3
20°	1057.3	1055.0
22.5°	1044.5	1042.2
25°	1029.3	1028.1
27.5°	1015.2	1016.4
30°	1009.4	1013.0
32.5°	1009.4	1015.2
35°	1011.7	1017.6
37.5°	1010.6	1017.6
40°	1005.9	1014.1
42.5°	993.1	998.9
45°	973.2	980.2
47.5°	947.4	952.1
50°	914.7	919.4
52.5°	873.7	874.9
55°	824.6	829.3
57.5°	772.0	773.1
60°	713.5	717.0
62.5°	651.5	651.5
65°	586.0	588.4
67.5°	518.2	524.0
70°	449.2	450.3
72.5°	381.3	381.3
75°	311.1	312.3
77.5°	244.4	244.4
80°	181.3	182.4
82.5°	125.1	127.5
85°	78.4	78.4
87.5°	36.3	32.8
90°	27.6	27.6
92.5°	110.5	88.5
95°	384.9	318.5
97.5°	922.2	795.8
100°	1328.7	1178.1
102.5°	1728.5	1599.6
105°	2238.3	2169.0
107.5°	2572.3	2589.1
110°	2699.6	2771.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2711.0	2821.9
115°	2639.1	2793.0
117.5°	2486.7	2657.3
120°	2363.9	2529.6
122.5°	2244.3	2407.7
125°	2073.6	2224.2
127.5°	1920.1	2047.2
130°	1829.7	1947.1
132.5°	1747.6	1852.7
135°	1635.2	1725.8
137.5°	1545.0	1619.2
140°	1483.1	1552.4
142.5°	1431.9	1491.5
145°	1355.0	1400.1
147.5°	1295.9	1333.3
150°	1258.8	1289.1
152.5°	1227.0	1249.9
155°	1190.5	1205.7
157.5°	1161.6	1172.3
160°	1144.5	1150.6
162.5°	1133.1	1139.0
165°	1116.9	1123.0
167.5°	1105.1	1107.7
170°	1101.9	1101.9
172.5°	1093.4	1091.1
175°	1088.1	1088.1
177.5°	1083.5	1080.9
180°	1080.9	1080.9



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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	0.45	1.17	1.57	2.28	3.83	13.63	14.35	14.75	15.46	17.00
	3H	1.15	1.79	2.27	2.91	4.47	15.46	16.10	16.58	17.22	18.78
	4H	1.44	2.05	2.57	3.17	4.73	16.10	16.71	17.23	17.83	19.39
	6H	1.68	2.24	2.82	3.37	4.94	16.52	17.08	17.66	18.21	19.78
	8H	1.74	2.28	2.89	3.42	4.99	16.63	17.17	17.78	18.31	19.88
	12H	1.76	2.26	2.90	3.40	4.99	16.70	17.21	17.85	18.34	19.93
4H	2H	7.65	8.26	8.79	9.38	10.95	13.89	14.50	15.03	15.62	17.18
	3H	9.20	9.71	10.35	10.86	12.44	15.92	16.43	17.06	17.58	19.15
	4H	9.29	9.76	10.44	10.90	12.49	16.68	17.15	17.83	18.29	19.88
	6H	9.29	9.70	10.45	10.86	12.44	17.21	17.61	18.36	18.77	20.36
	8H	9.26	9.64	10.42	10.79	12.40	17.37	17.74	18.52	18.89	20.50
	12H	9.21	9.56	10.39	10.72	12.33	17.45	17.79	18.62	18.96	20.57
8H	4H	10.72	11.10	11.88	12.25	13.86	16.73	17.10	17.88	18.25	19.86
	6H	10.96	11.27	12.13	12.46	14.06	17.35	17.66	18.52	18.85	20.45
	8H	10.97	11.25	12.16	12.42	14.04	17.57	17.84	18.75	19.01	20.63
	12H	10.93	11.17	12.12	12.34	14.00	17.70	17.94	18.89	19.11	20.77
12H	4H	10.86	11.20	12.03	12.36	13.97	16.67	17.01	17.84	18.18	19.79
	6H	11.21	11.49	12.40	12.66	14.28	17.33	17.60	18.51	18.77	20.40
	8H	11.28	11.52	12.46	12.69	14.34	17.55	17.79	18.74	18.96	20.62