

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: P938606

Luminaire Tested: SQ4-FB-150U-125D-B50-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

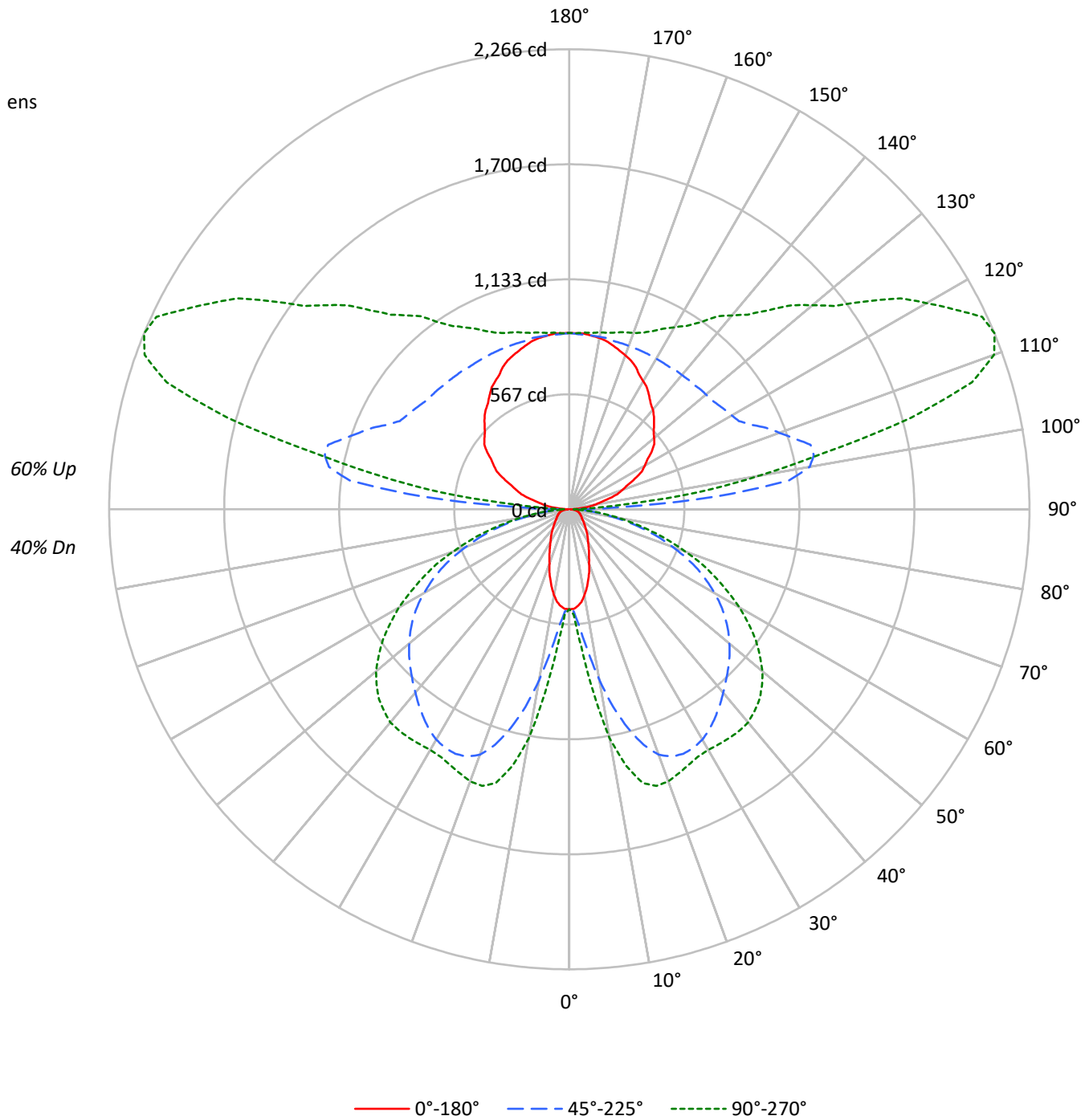
Test Method: LM-79-2019  
Report Number: P938606  
REPORT IS A COMBINATION OF REPORTS P933632 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-B50-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9432.5 lumens  
Efficiency: N/A  
Efficacy: 113.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 83.2  
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

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### Luminous Intensity Polar Plot





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**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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

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

	0°	45°	90°
0°	4561	4561	4561
5°	4451	5267	6130
10°	4032	7672	10163
15°	3423	10017	12272
20°	2784	11600	12508
25°	2320	12130	12253
30°	1953	12196	12230
35°	1724	11985	12546
40°	1501	11712	12873
45°	1356	11508	12923
50°	1241	11324	12709
55°	1184	11058	12146
60°	1210	10558	11256
65°	1252	9805	10034
70°	1323	8533	8477
75°	1453	6940	6616
80°	1554	4797	4458
85°	1308	2530	2282

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12923 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.6	0.7
10°-20°	281.8	3.0
20°-30°	492.9	5.2
30°-40°	634.5	6.7
40°-50°	708.7	7.5
50°-60°	678.8	7.2
60°-70°	537.9	5.7
70°-80°	316.3	3.4
80°-90°	91.2	1.0
90°-100°	423.1	4.5
100°-110°	1112.4	11.8
110°-120°	1153.4	12.2
120°-130°	925.2	9.8
130°-140°	725.9	7.7
140°-150°	557.2	5.9
150°-160°	401.3	4.3
160°-170°	245.5	2.6
170°-180°	82.9	0.9
0°-30°	838.2	8.9
0°-40°	1472.7	15.6
0°-60°	2860.2	30.3
0°-90°	3805.7	40.3
90°-120°	2688.9	28.5
90°-150°	4897.1	51.9
90°-180°	5627.0	59.7
0°-180°	9432.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	492	492	492	492	492	
5°	479	514	578	654	678	44
15°	359	662	1116	1353	1396	100
25°	229	751	1329	1388	1389	106
35°	155	718	1252	1323	1375	97
45°	106	572	1106	1268	1324	82
55°	76	364	939	1090	1120	69
65°	60	193	697	784	795	60
75°	44	118	382	420	422	46
85°	16	36	95	104	106	17
90°	6	16	44	22	22	6
95°	56	219	729	376	256	62
105°	200	304	1230	1867	1742	212
115°	356	432	985	1965	2243	352
125°	495	555	896	1514	1786	440
135°	590	650	868	1222	1386	457
145°	684	728	857	1043	1124	429
155°	774	795	857	941	968	355
165°	835	846	857	891	902	236
175°	868	868	863	874	874	82
180°	868	868	868	868	868	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	491.5	491.5	491.5	491.5	491.5	491.5	491.5	491.5	491.5	491.5	491.5
2.5°	491.5	491.5	494.6	496.2	499.4	501.0	504.2	507.3	516.8	518.4	521.5
5°	478.9	485.2	505.8	513.6	535.7	565.8	578.4	599.0	641.7	654.3	662.2
7.5°	459.9	474.1	524.7	537.3	592.6	671.6	704.9	749.2	817.1	850.2	877.1
10°	429.8	459.9	549.9	580.0	670.1	790.2	851.8	913.5	1016.2	1062.1	1079.4
12.5°	396.7	445.7	576.8	617.9	747.6	923.0	997.2	1065.2	1182.2	1243.8	1253.2
15°	358.7	425.2	602.1	662.2	829.7	1033.6	1115.8	1199.5	1308.6	1352.8	1363.9
17.5°	325.6	409.4	625.9	689.1	892.9	1133.1	1216.9	1286.5	1374.9	1405.0	1412.9
20°	284.5	384.1	641.7	723.8	959.3	1205.9	1286.5	1340.2	1400.3	1419.2	1422.4
22.5°	254.4	357.2	651.1	736.5	1003.6	1250.1	1318.1	1360.7	1401.8	1408.2	1409.7
25°	229.2	327.2	649.6	750.7	1041.5	1277.0	1329.2	1360.7	1384.5	1387.6	1387.6
27.5°	205.5	293.9	643.2	753.8	1069.9	1283.3	1324.4	1346.5	1357.6	1363.9	1363.9
30°	184.9	262.4	627.5	747.6	1082.6	1277.0	1310.1	1321.2	1332.3	1341.8	1346.5
32.5°	169.1	232.3	603.7	734.9	1084.2	1261.2	1284.9	1291.2	1307.0	1329.2	1337.0
35°	154.9	202.3	576.8	717.5	1074.7	1235.9	1251.7	1258.0	1289.6	1322.8	1333.8
37.5°	140.7	180.2	542.1	687.5	1060.5	1205.9	1216.9	1228.0	1277.0	1316.5	1329.2
40°	126.5	161.2	501.0	654.3	1038.3	1169.5	1179.0	1196.4	1261.2	1307.0	1319.6
42.5°	115.3	145.4	456.7	619.5	1009.8	1128.5	1142.7	1168.0	1242.2	1291.2	1305.5
45°	105.9	129.6	409.4	572.1	973.5	1085.8	1106.3	1141.1	1220.1	1267.5	1280.1
47.5°	96.4	118.5	360.3	523.1	934.0	1043.1	1069.9	1109.5	1190.0	1235.9	1247.0
50°	88.5	107.5	311.3	470.9	891.3	997.2	1028.9	1069.9	1152.1	1194.8	1209.1
52.5°	82.2	98.0	265.5	418.8	842.4	949.8	986.2	1028.9	1106.3	1147.4	1156.9
55°	75.8	90.0	226.0	363.5	791.8	899.3	938.8	979.9	1055.7	1090.4	1096.8
57.5°	72.7	83.8	192.8	311.3	738.0	842.4	886.6	924.6	995.6	1022.5	1028.9
60°	68.0	79.0	167.6	267.1	679.6	788.7	826.6	864.5	924.6	946.7	951.4
62.5°	63.2	75.8	148.6	224.4	619.5	725.4	763.4	798.1	848.7	864.5	870.8
65°	60.1	72.7	134.3	192.8	557.9	659.0	697.0	727.0	768.1	783.9	787.1
67.5°	56.9	69.6	123.3	166.0	496.2	592.6	621.1	649.6	681.2	697.0	698.5
70°	52.1	66.4	113.8	147.0	433.0	516.8	540.5	570.5	595.8	603.7	608.5
72.5°	49.0	61.6	107.5	132.7	368.3	444.1	466.3	483.6	505.8	513.6	513.6
75°	44.3	55.3	101.2	118.5	301.9	363.5	382.5	399.8	417.2	420.4	415.6
77.5°	39.5	49.0	87.0	99.6	235.5	287.7	303.5	312.9	327.2	330.3	331.9
80°	33.2	42.7	68.0	77.4	170.6	211.7	222.9	230.7	243.4	243.4	246.6
82.5°	25.3	33.2	49.0	55.3	115.3	145.4	154.9	159.6	167.6	167.6	167.6
85°	15.8	20.5	31.6	36.3	69.6	88.5	94.8	96.4	102.7	104.3	104.3
87.5°	7.9	11.0	20.5	22.1	36.3	45.9	45.9	49.0	49.0	47.4	45.9
90°	5.8	10.5	15.1	16.3	25.7	38.1	44.3	39.3	29.5	22.1	22.1
92.5°	23.3	62.9	102.6	112.5	158.0	218.8	249.3	218.5	156.9	110.7	106.3
95°	55.9	128.4	200.9	219.0	388.9	615.5	728.8	650.3	493.4	375.7	362.4
97.5°	96.7	160.6	224.6	240.6	523.9	901.7	1090.5	1040.9	941.8	867.4	842.0
100°	128.1	186.1	244.1	258.6	573.0	992.2	1201.8	1205.4	1212.7	1218.1	1187.9
102.5°	155.0	209.1	263.2	276.7	595.6	1020.7	1233.3	1296.4	1422.8	1517.6	1491.7
105°	200.4	246.3	292.1	303.6	612.2	1023.9	1229.7	1371.3	1654.6	1867.1	1853.1
107.5°	247.0	289.7	332.5	343.2	615.4	978.4	1159.8	1357.4	1752.5	2048.8	2052.2
110°	278.4	317.0	355.7	365.3	610.7	937.9	1101.6	1322.5	1764.1	2095.4	2109.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	309.3	346.1	382.9	392.1	610.9	902.7	1048.6	1274.6	1726.7	2065.7	2088.0
115°	355.9	389.9	423.8	432.3	616.5	862.3	985.1	1202.8	1638.3	1964.9	1995.9
117.5°	402.0	432.8	463.6	471.3	628.0	837.0	941.4	1137.9	1530.9	1825.7	1860.0
120°	428.7	457.8	486.7	494.0	637.3	828.4	923.9	1103.4	1462.6	1731.9	1765.2
122.5°	455.0	484.2	513.5	520.8	650.7	824.0	910.6	1072.2	1395.6	1638.1	1670.9
125°	495.2	521.8	548.5	555.2	668.7	820.2	896.0	1033.3	1308.0	1514.0	1544.3
127.5°	527.8	554.7	581.6	588.3	686.8	818.1	883.8	1001.7	1237.6	1414.4	1439.9
130°	545.3	574.2	603.2	610.5	700.0	819.4	879.1	984.1	1194.0	1351.5	1375.0
132.5°	563.3	592.3	621.3	628.6	710.7	820.2	875.0	968.9	1156.9	1297.9	1319.0
135°	590.1	616.5	642.9	649.5	722.4	819.4	868.0	946.7	1104.1	1222.1	1240.4
137.5°	617.5	643.6	669.8	676.3	739.8	824.5	866.8	933.3	1066.4	1166.3	1181.1
140°	640.3	664.4	688.5	694.4	750.6	825.4	862.7	920.2	1035.2	1121.4	1135.3
142.5°	657.7	680.0	702.2	707.8	759.4	828.3	862.7	913.3	1014.2	1090.0	1101.9
145°	684.5	704.0	723.3	728.1	771.1	828.4	856.9	898.2	980.8	1042.7	1051.8
147.5°	711.2	730.2	749.1	753.8	788.2	834.1	856.9	889.4	954.4	1003.1	1010.6
150°	728.8	745.9	762.9	767.2	797.1	837.0	856.9	884.4	939.2	980.4	986.5
152.5°	746.8	759.8	772.7	776.0	803.0	838.9	856.9	880.4	927.3	962.4	967.0
155°	773.6	783.3	792.8	795.2	815.8	843.2	856.9	875.6	912.9	940.8	943.9
157.5°	793.4	802.8	812.0	814.4	828.6	847.5	856.9	871.4	900.4	922.1	924.3
160°	806.8	814.1	821.4	823.1	834.4	849.5	856.9	869.4	894.2	912.8	914.0
162.5°	820.2	825.7	831.1	832.5	840.6	851.5	856.9	867.4	888.4	904.1	905.2
165°	834.8	839.7	844.6	845.8	849.6	854.5	856.9	864.4	879.5	890.7	891.9
167.5°	848.2	850.5	852.8	853.4	856.5	860.7	862.7	867.7	877.5	884.9	885.4
170°	856.9	859.3	861.6	862.2	862.4	862.6	862.7	867.7	877.5	884.9	884.9
172.5°	861.6	862.1	862.6	862.7	862.7	862.7	862.7	866.7	874.4	880.2	879.7
175°	868.0	868.0	868.0	868.0	866.2	863.9	862.7	865.2	870.1	873.9	873.9
177.5°	868.0	868.0	868.0	868.0	866.7	864.9	864.0	865.9	869.7	872.6	872.1
180°	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0	868.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	491.5	491.5
2.5°	524.7	521.5
5°	674.8	678.0
7.5°	908.8	907.2
10°	1130.0	1144.2
12.5°	1291.2	1294.3
15°	1389.2	1395.5
17.5°	1427.2	1428.7
20°	1428.7	1425.6
22.5°	1411.3	1408.2
25°	1390.7	1389.2
27.5°	1371.8	1373.4
30°	1363.9	1368.7
32.5°	1363.9	1371.8
35°	1367.1	1374.9
37.5°	1365.5	1374.9
40°	1359.2	1370.2
42.5°	1341.8	1349.6
45°	1314.9	1324.4
47.5°	1280.1	1286.5
50°	1235.9	1242.2
52.5°	1180.6	1182.2
55°	1114.2	1120.5
57.5°	1043.1	1044.7
60°	964.1	968.8
62.5°	880.3	880.3
65°	791.8	794.9
67.5°	700.1	708.1
70°	606.9	608.5
72.5°	515.2	515.2
75°	420.4	422.0
77.5°	330.3	330.3
80°	245.0	246.6
82.5°	169.1	172.2
85°	105.9	105.9
87.5°	49.0	44.3
90°	22.1	22.1
92.5°	88.6	71.1
95°	309.1	255.7
97.5°	740.6	639.0
100°	1067.0	946.0
102.5°	1388.1	1284.5
105°	1797.5	1741.8
107.5°	2065.6	2079.1
110°	2167.9	2225.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2177.1	2266.1
115°	2119.3	2242.8
117.5°	1996.9	2133.8
120°	1898.3	2031.4
122.5°	1802.2	1933.5
125°	1665.1	1786.1
127.5°	1541.9	1643.9
130°	1469.3	1563.5
132.5°	1403.3	1487.8
135°	1313.1	1385.9
137.5°	1240.7	1300.2
140°	1190.9	1246.6
142.5°	1149.8	1197.7
145°	1088.1	1124.3
147.5°	1040.7	1070.7
150°	1010.9	1035.2
152.5°	985.4	1003.7
155°	956.0	968.2
157.5°	932.8	941.4
160°	919.0	923.9
162.5°	909.9	914.6
165°	896.8	901.8
167.5°	887.5	889.5
170°	884.9	884.9
172.5°	878.0	876.2
175°	873.9	873.9
177.5°	870.0	868.0
180°	868.0	868.0



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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	5.31	6.12	6.34	7.16	8.56	18.45	19.26	19.48	20.30	21.70
	3H	6.01	6.74	7.05	7.79	9.21	20.27	21.00	21.31	22.05	23.47
	4H	6.31	7.00	7.36	8.05	9.48	20.90	21.59	21.95	22.64	24.07
	6H	6.56	7.19	7.62	8.25	9.69	21.32	21.95	22.38	23.01	24.45
	8H	6.63	7.23	7.69	8.30	9.74	21.43	22.04	22.50	23.11	24.54
	12H	6.64	7.22	7.71	8.28	9.74	21.49	22.07	22.56	23.13	24.59
4H	2H	12.50	13.19	13.55	14.24	15.66	18.72	19.41	19.78	20.46	21.89
	3H	14.06	14.64	15.13	15.72	17.16	20.75	21.32	21.81	22.40	23.84
	4H	14.15	14.68	15.23	15.75	17.22	21.50	22.03	22.57	23.10	24.56
	6H	14.16	14.62	15.24	15.71	17.17	22.02	22.48	23.10	23.57	25.03
	8H	14.14	14.56	15.22	15.65	17.12	22.18	22.60	23.26	23.69	25.16
	12H	14.09	14.48	15.19	15.58	17.05	22.26	22.65	23.36	23.75	25.22
8H	4H	15.58	16.01	16.67	17.10	18.57	21.56	21.98	22.64	23.07	24.54
	6H	15.82	16.18	16.93	17.30	18.77	22.17	22.52	23.28	23.65	25.12
	8H	15.84	16.15	16.95	17.26	18.75	22.38	22.69	23.49	23.80	25.29
	12H	15.81	16.08	16.92	17.19	18.71	22.52	22.79	23.63	23.89	25.42
12H	4H	15.72	16.11	16.82	17.21	18.68	21.51	21.89	22.61	22.99	24.47
	6H	16.08	16.39	17.19	17.50	18.99	22.15	22.46	23.26	23.57	25.06
	8H	16.14	16.42	17.26	17.52	19.05	22.37	22.65	23.49	23.75	25.28