

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: P937623

Luminaire Tested: SQ4-FB-100U-100D-927-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

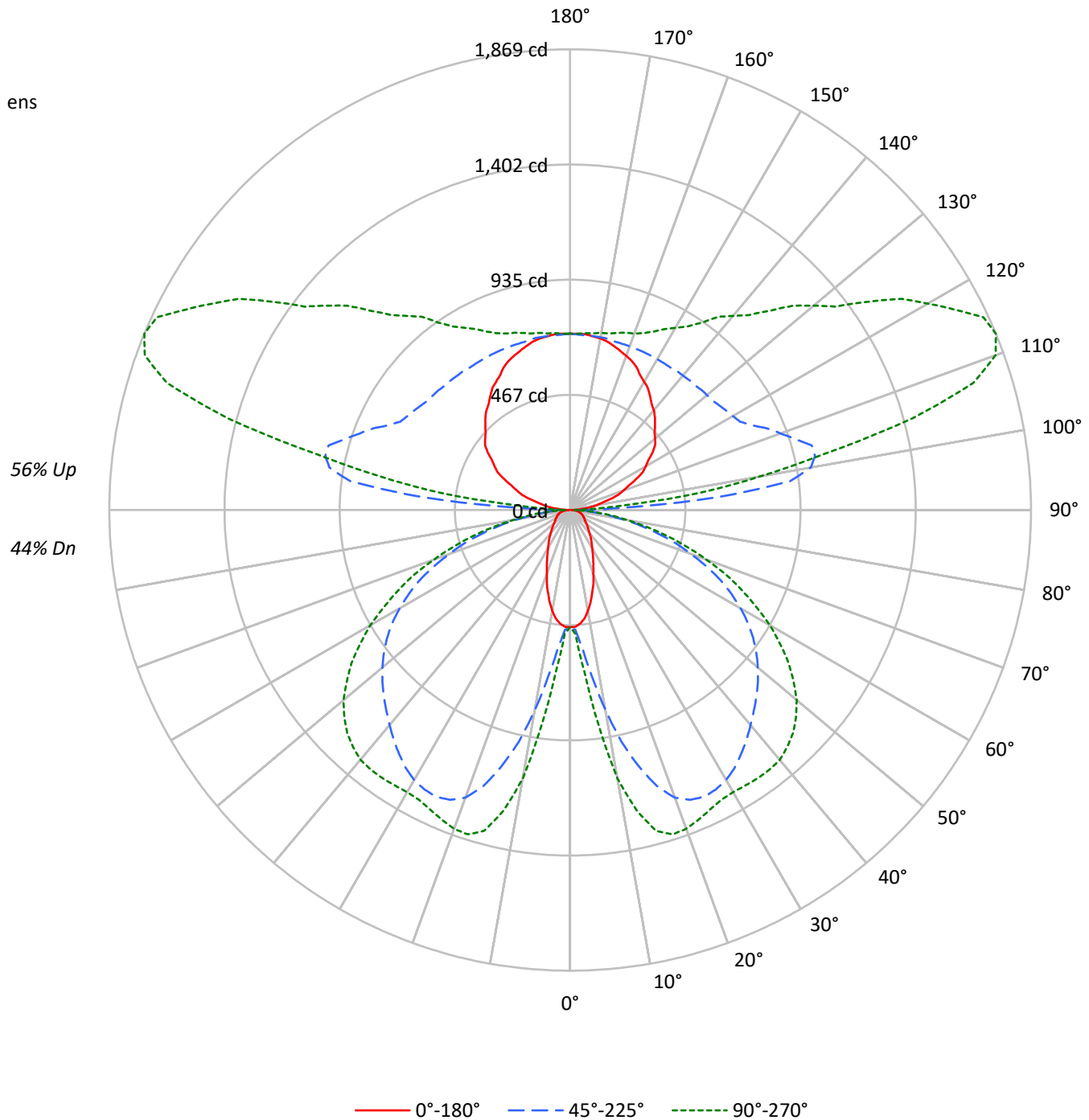
Test Method: LM-79-2019  
Report Number: P937623  
REPORT IS A COMBINATION OF REPORTS P933575 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-927-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8314.5 lumens  
Efficiency: N/A  
Efficacy: 95.6 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: General Diffuse  
  
Input Watts (W): 87  
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: P937623  
CATALOG NUMBER: SQ4-FB-100U-100D-927-1D-UNV-STD-W-6

### Luminous Intensity Polar Plot





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CATALOG NUMBER: SQ4-FB-100U-100D-927-1D-UNV-STD-W-6

**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	44			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9			9

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

	0°	45°	90°
0°	2936	2936	2936
5°	2867	3392	3946
10°	2599	4944	6542
15°	2209	6458	7899
20°	1797	7482	8051
25°	1499	7827	7887
30°	1264	7874	7872
35°	1116	7742	8076
40°	972	7570	8286
45°	880	7443	8318
50°	807	7329	8181
55°	771	7161	7818
60°	789	6844	7246
65°	820	6363	6458
70°	872	5545	5457
75°	961	4517	4258
80°	1042	3128	2870
85°	906	1658	1469

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8318 cd/sqm



TEST NUMBER: P937623

CATALOG NUMBER: SQ4-FB-100U-100D-927-1D-UNV-STD-W-6

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.4	0.7
10°-20°	272.1	3.3
20°-30°	475.9	5.7
30°-40°	612.6	7.4
40°-50°	684.3	8.2
50°-60°	655.4	7.9
60°-70°	519.4	6.2
70°-80°	305.4	3.7
80°-90°	87.6	1.1
90°-100°	348.9	4.2
100°-110°	917.3	11.0
110°-120°	951.2	11.4
120°-130°	763.0	9.2
130°-140°	598.7	7.2
140°-150°	459.5	5.5
150°-160°	330.9	4.0
160°-170°	202.5	2.4
170°-180°	68.4	0.8
0°-30°	809.4	9.7
0°-40°	1422.0	17.1
0°-60°	2761.7	33.2
0°-90°	3674.1	44.2
90°-120°	2217.4	26.7
90°-150°	4038.6	48.6
90°-180°	4640.0	55.8
0°-180°	8314.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	462	496	558	632	655	43
15°	346	639	1077	1306	1347	96
25°	221	725	1283	1340	1341	102
35°	150	693	1209	1277	1328	93
45°	102	552	1068	1224	1279	79
55°	73	351	906	1053	1082	67
65°	58	186	673	757	768	57
75°	43	114	369	406	407	45
85°	15	35	92	101	102	16
90°	5	14	36	18	18	5
95°	46	181	601	310	211	51
105°	165	250	1014	1540	1436	175
115°	294	356	812	1620	1850	290
125°	408	458	739	1249	1473	363
135°	487	536	716	1008	1143	377
145°	564	600	707	860	927	354
155°	638	656	707	776	798	293
165°	688	698	707	735	744	194
175°	716	716	712	721	721	68
180°	716	716	716	716	716	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6
2.5°	474.6	474.6	477.6	479.2	482.2	483.7	486.8	489.9	499.0	500.5	503.6
5°	462.4	468.5	488.3	496.0	517.3	546.3	558.5	578.3	619.5	631.8	639.4
7.5°	444.1	457.8	506.7	518.8	572.3	648.6	680.6	723.3	788.9	821.0	846.9
10°	415.0	444.1	531.1	560.0	647.0	763.0	822.5	882.0	981.2	1025.5	1042.3
12.5°	383.0	430.4	557.0	596.7	721.8	891.2	962.9	1028.5	1141.4	1201.0	1210.1
15°	346.4	410.5	581.4	639.4	801.1	998.0	1077.4	1158.2	1263.5	1306.2	1316.9
17.5°	314.4	395.2	604.3	665.4	862.2	1094.2	1175.0	1242.2	1327.6	1356.6	1364.2
20°	274.7	370.8	619.5	698.9	926.3	1164.3	1242.2	1294.1	1352.0	1370.4	1373.4
22.5°	245.7	344.9	628.7	711.1	969.0	1207.1	1272.7	1313.9	1353.6	1359.7	1361.2
25°	221.3	315.9	627.2	724.9	1005.6	1233.0	1283.4	1313.9	1336.8	1339.8	1339.8
27.5°	198.4	283.8	621.1	727.9	1033.1	1239.1	1278.7	1300.1	1310.8	1316.9	1316.9
30°	178.6	253.3	605.8	721.8	1045.3	1233.0	1265.0	1275.7	1286.4	1295.5	1300.1
32.5°	163.3	224.3	582.9	709.6	1046.8	1217.8	1240.6	1246.7	1262.0	1283.4	1291.0
35°	149.5	195.3	557.0	692.8	1037.7	1193.3	1208.6	1214.7	1245.2	1277.3	1287.9
37.5°	135.8	173.9	523.4	663.8	1023.9	1164.3	1175.0	1185.7	1233.0	1271.1	1283.4
40°	122.0	155.6	483.7	631.8	1002.5	1129.2	1138.4	1155.2	1217.8	1262.0	1274.2
42.5°	111.4	140.4	441.0	598.2	975.1	1089.6	1103.3	1127.7	1199.4	1246.7	1260.5
45°	102.3	125.1	395.2	552.4	940.0	1048.4	1068.2	1101.8	1178.0	1223.8	1236.1
47.5°	93.1	114.4	348.0	505.1	901.8	1007.2	1033.1	1071.2	1149.1	1193.3	1204.0
50°	85.5	103.8	300.6	454.8	860.6	962.9	993.5	1033.1	1112.4	1153.6	1167.4
52.5°	79.4	94.6	256.3	404.4	813.4	917.1	952.2	993.5	1068.2	1107.9	1117.0
55°	73.2	87.0	218.2	351.0	764.5	868.3	906.4	946.1	1019.3	1052.9	1059.1
57.5°	70.2	80.9	186.2	300.6	712.6	813.4	856.1	892.7	961.3	987.3	993.5
60°	65.6	76.3	161.8	257.9	656.2	761.5	798.1	834.7	892.7	914.1	918.6
62.5°	61.1	73.2	143.5	216.7	598.2	700.4	737.0	770.6	819.4	834.7	840.8
65°	58.0	70.2	129.7	186.2	538.7	636.3	673.0	701.9	741.7	756.9	759.9
67.5°	54.9	67.1	119.0	160.2	479.2	572.3	599.7	627.2	657.7	673.0	674.5
70°	50.4	64.1	109.9	141.9	418.1	499.0	521.9	550.9	575.3	582.9	587.5
72.5°	47.3	59.5	103.8	128.2	355.6	428.8	450.1	466.9	488.3	496.0	496.0
75°	42.7	53.4	97.6	114.4	291.4	351.0	369.3	386.1	402.9	405.9	401.3
77.5°	38.1	47.3	83.9	96.2	227.4	277.7	293.0	302.1	315.9	318.9	320.5
80°	32.0	41.2	65.6	74.8	164.8	204.5	215.1	222.8	235.0	235.0	238.1
82.5°	24.4	32.0	47.3	53.4	111.4	140.4	149.5	154.2	161.8	161.8	161.8
85°	15.2	19.9	30.5	35.1	67.1	85.5	91.6	93.1	99.2	100.7	100.7
87.5°	7.6	10.7	19.9	21.3	35.1	44.3	44.3	47.3	47.3	45.8	44.3
90°	4.8	8.6	12.5	13.5	21.2	31.4	36.5	32.4	24.3	18.2	18.2
92.5°	19.2	51.9	84.5	92.7	130.4	180.5	205.6	180.2	129.4	91.2	87.6
95°	46.1	105.9	165.7	180.6	320.8	507.6	601.0	536.3	406.9	309.8	298.8
97.5°	79.8	132.5	185.3	198.4	432.0	743.6	899.4	858.5	776.7	715.3	694.4
100°	105.7	153.5	201.4	213.3	472.5	818.2	991.1	994.1	1000.1	1004.5	979.6
102.5°	127.8	172.5	217.1	228.2	491.2	841.8	1017.0	1069.1	1173.3	1251.5	1230.2
105°	165.2	203.0	240.9	250.3	505.0	844.5	1014.2	1131.0	1364.5	1539.7	1528.2
107.5°	203.7	238.9	274.2	283.0	507.5	806.8	956.5	1119.4	1445.2	1689.6	1692.4
110°	229.6	261.4	293.3	301.2	503.7	773.5	908.4	1090.6	1454.8	1728.0	1740.0



TEST NUMBER: P937623

CATALOG NUMBER: SQ4-FB-100U-100D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	255.1	285.4	315.8	323.3	503.8	744.4	864.7	1051.1	1424.0	1703.5	1721.9
115°	293.5	321.5	349.4	356.4	508.4	711.0	812.4	991.9	1351.1	1620.5	1646.0
117.5°	331.5	356.9	382.3	388.6	517.8	690.2	776.3	938.4	1262.5	1505.6	1533.8
120°	353.6	377.5	401.4	407.4	525.6	683.1	761.9	910.0	1206.1	1428.3	1455.7
122.5°	375.2	399.3	423.5	429.5	536.6	679.4	750.9	884.3	1150.9	1350.9	1378.0
125°	408.3	430.4	452.4	457.8	551.6	676.4	738.9	852.2	1078.7	1248.6	1273.6
127.5°	435.3	457.5	479.7	485.3	566.4	674.7	728.8	826.1	1020.6	1166.5	1187.5
130°	449.7	473.6	497.5	503.5	577.3	675.8	725.0	811.5	984.7	1114.6	1134.0
132.5°	464.5	488.5	512.4	518.4	586.1	676.4	721.6	799.1	954.1	1070.4	1087.8
135°	486.6	508.4	530.2	535.7	595.7	675.8	715.8	780.7	910.5	1007.9	1022.9
137.5°	509.2	530.8	552.4	557.8	610.1	680.0	714.9	769.8	879.5	961.8	974.0
140°	528.0	547.9	567.7	572.6	618.9	680.6	711.5	758.9	853.7	924.8	936.2
142.5°	542.4	560.8	579.1	583.7	626.3	683.1	711.5	753.1	836.4	898.8	908.7
145°	564.5	580.5	596.5	600.5	635.9	683.1	706.7	740.7	808.9	859.9	867.4
147.5°	586.6	602.1	617.7	621.6	650.0	687.8	706.7	733.5	787.1	827.3	833.4
150°	601.0	615.1	629.2	632.7	657.3	690.2	706.7	729.3	774.5	808.5	813.5
152.5°	615.9	626.6	637.3	639.9	662.2	691.8	706.7	726.0	764.7	793.6	797.4
155°	638.0	645.9	653.7	655.7	672.7	695.4	706.7	722.1	752.8	775.9	778.4
157.5°	654.3	662.0	669.7	671.6	683.3	698.9	706.7	718.6	742.6	760.5	762.3
160°	665.4	671.4	677.4	678.8	688.1	700.5	706.7	716.9	737.4	752.8	753.8
162.5°	676.4	680.9	685.4	686.5	693.2	702.2	706.7	715.3	732.7	745.6	746.5
165°	688.5	692.5	696.5	697.5	700.6	704.7	706.7	712.9	725.3	734.6	735.6
167.5°	699.5	701.4	703.3	703.8	706.3	709.8	711.5	715.6	723.6	729.7	730.2
170°	706.7	708.6	710.6	711.0	711.2	711.4	711.5	715.6	723.6	729.7	729.7
172.5°	710.6	710.9	711.4	711.5	711.5	711.5	711.5	714.7	721.1	725.9	725.5
175°	715.8	715.8	715.8	715.8	714.3	712.4	711.5	713.5	717.6	720.6	720.6
177.5°	715.8	715.8	715.8	715.8	714.7	713.3	712.5	714.1	717.3	719.6	719.2
180°	715.8	715.8	715.8	715.8	715.8	715.8	715.8	715.8	715.8	715.8	715.8



TEST NUMBER: P937623

CATALOG NUMBER: SQ4-FB-100U-100D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	474.6	474.6
2.5°	506.7	503.6
5°	651.6	654.7
7.5°	877.4	876.0
10°	1091.1	1104.8
12.5°	1246.7	1249.8
15°	1341.3	1347.4
17.5°	1378.0	1379.5
20°	1379.5	1376.5
22.5°	1362.7	1359.7
25°	1342.9	1341.3
27.5°	1324.6	1326.1
30°	1316.9	1321.5
32.5°	1316.9	1324.6
35°	1320.0	1327.6
37.5°	1318.5	1327.6
40°	1312.3	1323.0
42.5°	1295.5	1303.2
45°	1269.7	1278.7
47.5°	1236.1	1242.2
50°	1193.3	1199.4
52.5°	1139.9	1141.4
55°	1075.8	1081.9
57.5°	1007.2	1008.7
60°	930.9	935.4
62.5°	850.0	850.0
65°	764.5	767.5
67.5°	676.0	683.6
70°	586.0	587.5
72.5°	497.5	497.5
75°	405.9	407.4
77.5°	318.9	318.9
80°	236.5	238.1
82.5°	163.3	166.3
85°	102.3	102.3
87.5°	47.3	42.7
90°	18.2	18.2
92.5°	73.1	58.6
95°	254.9	210.9
97.5°	610.7	527.0
100°	879.9	780.2
102.5°	1144.7	1059.3
105°	1482.3	1436.4
107.5°	1703.5	1714.6
110°	1787.9	1835.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1795.3	1868.8
115°	1747.7	1849.6
117.5°	1646.8	1759.8
120°	1565.5	1675.2
122.5°	1486.3	1594.5
125°	1373.2	1472.9
127.5°	1271.7	1355.7
130°	1211.7	1289.4
132.5°	1157.4	1227.0
135°	1082.9	1142.9
137.5°	1023.2	1072.3
140°	982.2	1028.1
142.5°	948.3	987.8
145°	897.4	927.2
147.5°	858.2	883.0
150°	833.6	853.7
152.5°	812.6	827.8
155°	788.4	798.4
157.5°	769.3	776.3
160°	757.9	761.9
162.5°	750.4	754.2
165°	739.7	743.7
167.5°	731.9	733.6
170°	729.7	729.7
172.5°	724.0	722.6
175°	720.6	720.6
177.5°	717.5	715.8
180°	715.8	715.8



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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	4.19	5.03	5.19	6.05	7.40	17.35	18.20	18.35	19.21	20.56
	3H	4.89	5.65	5.90	6.67	8.04	19.19	19.94	20.19	20.97	22.34
	4H	5.19	5.91	6.21	6.94	8.31	19.83	20.55	20.85	21.57	22.95
	6H	5.44	6.10	6.47	7.13	8.52	20.25	20.92	21.28	21.95	23.34
	8H	5.51	6.14	6.54	7.19	8.57	20.37	21.00	21.41	22.05	23.43
	12H	5.52	6.12	6.57	7.17	8.58	20.44	21.04	21.48	22.08	23.49
4H	2H	11.39	12.11	12.42	13.14	14.51	17.63	18.35	18.65	19.37	20.75
	3H	12.96	13.56	14.00	14.62	16.01	19.66	20.27	20.70	21.32	22.71
	4H	13.05	13.61	14.10	14.65	16.06	20.43	20.98	21.47	22.02	23.44
	6H	13.06	13.54	14.12	14.61	16.02	20.96	21.44	22.01	22.51	23.91
	8H	13.04	13.48	14.09	14.55	15.97	21.12	21.56	22.18	22.63	24.05
	12H	13.00	13.40	14.07	14.47	15.90	21.21	21.61	22.28	22.69	24.12
8H	4H	14.49	14.94	15.55	16.00	17.42	20.49	20.93	21.54	21.99	23.42
	6H	14.73	15.10	15.81	16.21	17.63	21.11	21.48	22.19	22.58	24.00
	8H	14.75	15.08	15.84	16.16	17.60	21.33	21.65	22.41	22.74	24.18
	12H	14.72	15.01	15.81	16.09	17.57	21.47	21.75	22.56	22.84	24.32
12H	4H	14.63	15.04	15.71	16.11	17.54	20.44	20.84	21.51	21.92	23.35
	6H	14.99	15.32	16.08	16.40	17.84	21.09	21.42	22.18	22.50	23.94
	8H	15.06	15.35	16.15	16.43	17.91	21.32	21.61	22.41	22.69	24.17