

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: P937671

Luminaire Tested: SQ4-FB-100U-100D-935-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937671  
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-935-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

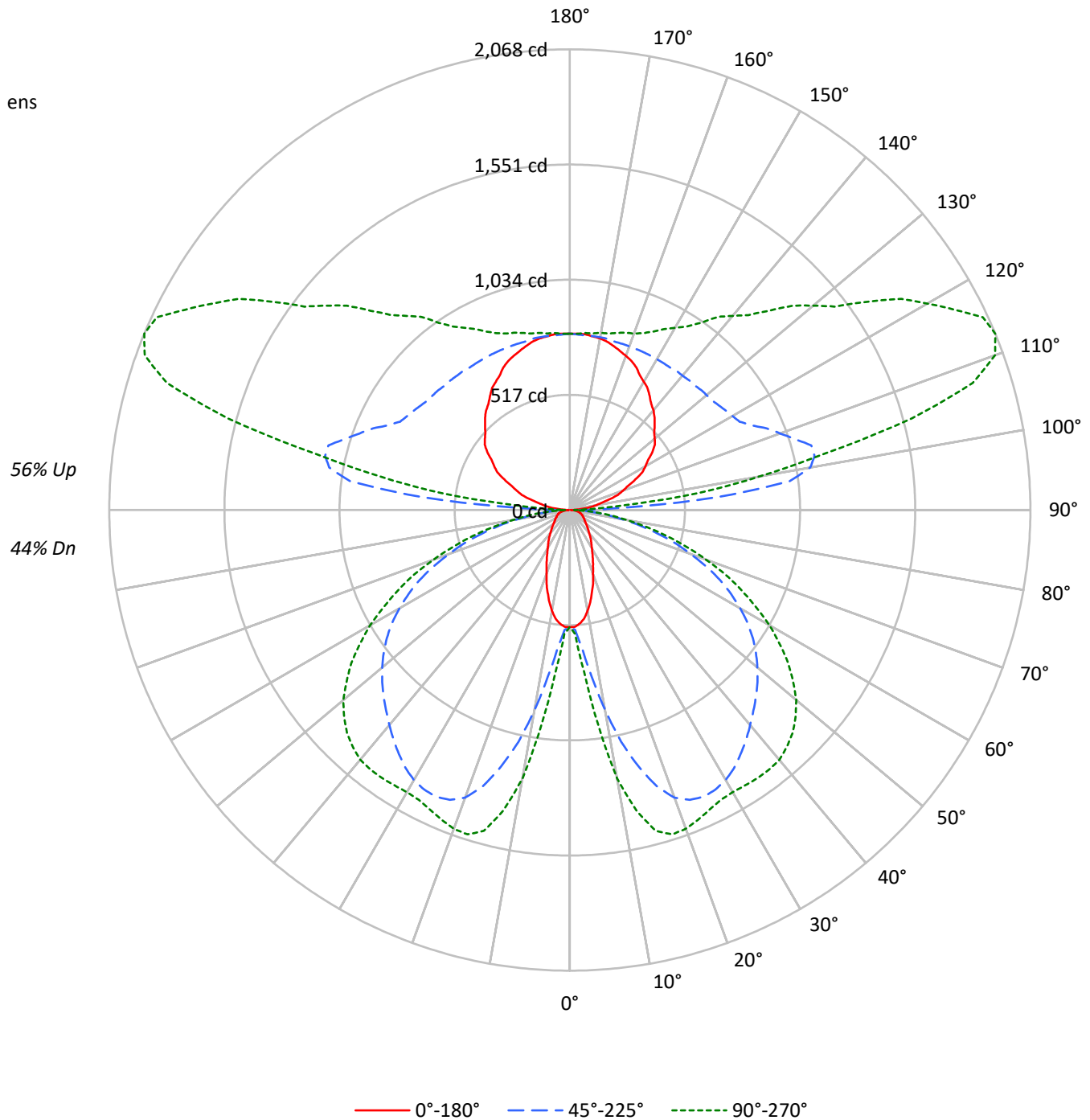
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9199.9 lumens  
Efficiency: N/A  
Efficacy: 105.7 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 (A<sub>in</sub>): 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44	44	44	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36	36	36	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30	30	30	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24	24	24	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20	20	20	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17	17	17	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11	11	11	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10	10	10	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9	9	9	9

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

	0°	45°	90°
0°	3248	3248	3248
5°	3172	3754	4367
10°	2876	5470	7238
15°	2444	7145	8741
20°	1989	8278	8908
25°	1659	8660	8727
30°	1398	8713	8711
35°	1235	8566	8936
40°	1075	8375	9169
45°	973	8236	9204
50°	893	8109	9053
55°	853	7925	8651
60°	873	7573	8017
65°	907	7040	7147
70°	963	6136	6038
75°	1064	4998	4711
80°	1152	3461	3175
85°	1008	1833	1625

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9204 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.9	0.7
10°-20°	301.1	3.3
20°-30°	526.6	5.7
30°-40°	677.9	7.4
40°-50°	757.2	8.2
50°-60°	725.2	7.9
60°-70°	574.7	6.2
70°-80°	338.0	3.7
80°-90°	96.9	1.1
90°-100°	386.1	4.2
100°-110°	1015.0	11.0
110°-120°	1052.5	11.4
120°-130°	844.2	9.2
130°-140°	662.4	7.2
140°-150°	508.4	5.5
150°-160°	366.2	4.0
160°-170°	224.0	2.4
170°-180°	75.7	0.8
0°-30°	895.6	9.7
0°-40°	1573.4	17.1
0°-60°	3055.8	33.2
0°-90°	4065.4	44.2
90°-120°	2453.6	26.7
90°-150°	4468.7	48.6
90°-180°	5135.0	55.8
0°-180°	9199.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	525	525	525	525	525	
5°	512	549	618	699	724	47
15°	383	708	1192	1445	1491	107
25°	245	802	1420	1482	1484	113
35°	166	766	1337	1413	1469	103
45°	113	611	1182	1354	1415	88
55°	81	388	1003	1165	1197	74
65°	64	206	745	838	849	64
75°	47	127	409	449	451	49
85°	17	39	101	111	113	18
90°	5	15	40	20	20	6
95°	51	200	665	343	233	57
105°	183	277	1122	1704	1589	194
115°	325	394	899	1793	2047	321
125°	452	507	818	1382	1630	401
135°	538	593	792	1115	1265	417
145°	625	664	782	952	1026	391
155°	706	726	782	858	883	324
165°	762	772	782	813	823	215
175°	792	792	787	797	797	75
180°	792	792	792	792	792	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1
2.5°	525.1	525.1	528.5	530.2	533.5	535.2	538.6	542.0	552.1	553.8	557.2
5°	511.6	518.4	540.3	548.8	572.4	604.5	618.0	639.9	685.5	699.1	707.5
7.5°	491.3	506.5	560.6	574.1	633.2	717.6	753.1	800.4	873.0	908.4	937.1
10°	459.2	491.3	587.6	619.7	715.9	844.2	910.1	976.0	1085.7	1134.7	1153.3
12.5°	423.8	476.2	616.3	660.2	798.7	986.1	1065.4	1138.0	1263.0	1328.9	1339.0
15°	383.3	454.2	643.3	707.5	886.4	1104.3	1192.1	1281.6	1398.0	1445.3	1457.2
17.5°	347.9	437.3	668.6	736.2	954.0	1210.7	1300.2	1374.4	1469.0	1501.1	1509.5
20°	303.9	410.3	685.5	773.4	1025.0	1288.3	1374.4	1431.9	1496.0	1516.3	1519.6
22.5°	271.9	381.6	695.7	786.8	1072.2	1335.6	1408.2	1453.8	1497.7	1504.5	1506.2
25°	244.9	349.5	694.0	802.1	1112.7	1364.3	1420.0	1453.8	1479.2	1482.5	1482.5
27.5°	219.5	314.0	687.2	805.4	1143.1	1371.0	1414.9	1438.6	1450.4	1457.2	1457.2
30°	197.6	280.3	670.4	798.7	1156.6	1364.3	1399.8	1411.6	1423.4	1433.5	1438.6
32.5°	180.7	248.2	645.0	785.1	1158.3	1347.4	1372.7	1379.5	1396.3	1420.0	1428.5
35°	165.5	216.2	616.3	766.5	1148.2	1320.4	1337.3	1344.0	1377.8	1413.3	1425.1
37.5°	150.3	192.5	579.2	734.5	1133.0	1288.3	1300.2	1312.0	1364.3	1406.5	1420.0
40°	135.0	172.2	535.2	699.1	1109.3	1249.5	1259.6	1278.2	1347.4	1396.3	1409.9
42.5°	123.3	155.3	487.9	661.9	1079.0	1205.6	1220.7	1247.8	1327.2	1379.5	1394.7
45°	113.1	138.4	437.3	611.2	1040.1	1160.0	1182.0	1219.1	1303.5	1354.2	1367.7
47.5°	103.0	126.6	385.0	558.9	997.9	1114.4	1143.1	1185.3	1271.4	1320.4	1332.2
50°	94.6	114.8	332.6	503.2	952.3	1065.4	1099.3	1143.1	1230.9	1276.5	1291.7
52.5°	87.8	104.7	283.6	447.5	900.0	1014.8	1053.6	1099.3	1182.0	1225.9	1236.0
55°	81.0	96.3	241.5	388.3	846.0	960.7	1003.0	1046.9	1127.9	1165.0	1171.8
57.5°	77.7	89.5	206.0	332.6	788.5	900.0	947.3	987.8	1063.7	1092.4	1099.3
60°	72.6	84.4	179.0	285.3	726.1	842.5	883.1	923.6	987.8	1011.4	1016.4
62.5°	67.6	81.0	158.7	239.8	661.9	775.0	815.5	852.7	906.7	923.6	930.4
65°	64.2	77.7	143.6	206.0	596.1	704.1	744.6	776.7	820.6	837.5	840.8
67.5°	60.7	74.3	131.7	177.3	530.2	633.2	663.5	694.0	727.8	744.6	746.4
70°	55.7	70.9	121.6	157.0	462.6	552.1	577.5	609.5	636.5	645.0	650.1
72.5°	52.3	65.9	114.8	141.9	393.5	474.5	498.1	516.7	540.3	548.8	548.8
75°	47.3	59.1	108.0	126.6	322.5	388.3	408.6	427.2	445.8	449.2	444.1
77.5°	42.2	52.3	92.9	106.4	251.6	307.3	324.2	334.3	349.5	352.9	354.6
80°	35.4	45.6	72.6	82.7	182.3	226.3	238.0	246.5	260.0	260.0	263.4
82.5°	27.0	35.4	52.3	59.1	123.3	155.3	165.5	170.6	179.0	179.0	179.0
85°	16.9	22.0	33.7	38.9	74.3	94.6	101.3	103.0	109.7	111.4	111.4
87.5°	8.4	11.8	22.0	23.6	38.9	49.0	49.0	52.3	52.3	50.7	49.0
90°	5.3	9.5	13.8	14.9	23.4	34.8	40.4	35.9	26.9	20.2	20.2
92.5°	21.3	57.4	93.5	102.6	144.2	199.7	227.5	199.4	143.1	101.0	97.0
95°	51.0	117.2	183.4	199.9	354.9	561.6	665.0	593.4	450.2	342.8	330.7
97.5°	88.3	146.6	205.0	219.6	478.1	822.8	995.1	949.9	859.4	791.5	768.3
100°	117.0	169.9	222.8	236.0	522.9	905.3	1096.6	1099.9	1106.6	1111.5	1083.9
102.5°	141.4	190.8	240.2	252.5	543.5	931.4	1125.3	1183.0	1298.3	1384.8	1361.2
105°	182.8	224.7	266.5	277.0	558.7	934.4	1122.2	1251.4	1509.8	1703.7	1691.0
107.5°	225.4	264.4	303.4	313.1	561.6	892.7	1058.4	1238.6	1599.1	1869.5	1872.6
110°	254.1	289.3	324.5	333.3	557.3	855.9	1005.2	1206.7	1609.8	1912.1	1925.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	282.3	315.8	349.4	357.8	557.5	823.7	956.8	1163.1	1575.6	1885.0	1905.2
115°	324.8	355.7	386.6	394.4	562.6	786.7	898.9	1097.5	1495.0	1793.0	1821.2
117.5°	366.8	394.9	423.0	430.0	573.0	763.6	859.0	1038.3	1396.9	1665.9	1697.2
120°	391.2	417.7	444.1	450.8	581.6	755.9	843.1	1006.9	1334.6	1580.4	1610.7
122.5°	415.2	441.8	468.6	475.2	593.8	751.8	830.9	978.4	1273.5	1494.7	1524.7
125°	451.8	476.2	500.6	506.6	610.3	748.5	817.6	942.9	1193.6	1381.6	1409.2
127.5°	481.6	506.2	530.8	536.9	626.7	746.5	806.4	914.0	1129.2	1290.7	1314.0
130°	497.6	524.1	550.5	557.1	638.8	747.7	802.2	897.9	1089.5	1233.3	1254.7
132.5°	514.0	540.5	566.9	573.6	648.5	748.5	798.4	884.2	1055.7	1184.4	1203.6
135°	538.5	562.6	586.7	592.7	659.2	747.7	792.0	863.8	1007.5	1115.3	1131.9
137.5°	563.4	587.3	611.2	617.2	675.1	752.4	791.0	851.7	973.2	1064.2	1077.8
140°	584.2	606.2	628.2	633.6	684.8	753.1	787.2	839.7	944.6	1023.3	1035.9
142.5°	600.1	620.5	640.8	645.9	693.0	755.8	787.2	833.3	925.4	994.5	1005.4
145°	624.6	642.3	660.0	664.5	703.7	755.9	782.0	819.6	895.0	951.5	959.8
147.5°	649.1	666.3	683.5	687.8	719.2	761.0	782.0	811.6	870.9	915.4	922.2
150°	665.0	680.6	696.2	700.1	727.4	763.7	782.0	807.0	857.0	894.6	900.1
152.5°	681.5	693.4	705.1	708.1	732.7	765.5	782.0	803.4	846.1	878.2	882.3
155°	706.0	714.7	723.3	725.6	744.4	769.4	782.0	799.0	833.0	858.5	861.3
157.5°	724.0	732.5	741.0	743.1	756.1	773.4	782.0	795.2	821.7	841.5	843.5
160°	736.2	742.9	749.5	751.1	761.4	775.1	782.0	793.3	816.0	833.0	834.1
162.5°	748.5	753.4	758.4	759.6	767.1	777.0	782.0	791.5	810.7	825.0	826.0
165°	761.8	766.2	770.7	771.8	775.2	779.8	782.0	788.8	802.5	812.8	813.9
167.5°	774.0	776.1	778.2	778.7	781.5	785.4	787.2	791.8	800.7	807.4	808.0
170°	782.0	784.1	786.2	786.7	786.9	787.2	787.2	791.8	800.7	807.4	807.4
172.5°	786.2	786.7	787.2	787.2	787.2	787.2	787.2	790.8	797.9	803.2	802.8
175°	792.0	792.0	792.0	792.0	790.4	788.3	787.2	789.5	794.0	797.4	797.4
177.5°	792.0	792.0	792.0	792.0	790.8	789.2	788.4	790.1	793.6	796.3	795.8
180°	792.0	792.0	792.0	792.0	792.0	792.0	792.0	792.0	792.0	792.0	792.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	525.1	525.1
2.5°	560.6	557.2
5°	721.0	724.4
7.5°	970.9	969.2
10°	1207.3	1222.4
12.5°	1379.5	1382.9
15°	1484.2	1490.9
17.5°	1524.7	1526.4
20°	1526.4	1523.0
22.5°	1507.8	1504.5
25°	1485.9	1484.2
27.5°	1465.6	1467.3
30°	1457.2	1462.2
32.5°	1457.2	1465.6
35°	1460.6	1469.0
37.5°	1458.9	1469.0
40°	1452.1	1463.9
42.5°	1433.5	1442.0
45°	1404.9	1414.9
47.5°	1367.7	1374.4
50°	1320.4	1327.2
52.5°	1261.3	1263.0
55°	1190.4	1197.1
57.5°	1114.4	1116.1
60°	1030.0	1035.0
62.5°	940.5	940.5
65°	846.0	849.3
67.5°	748.0	756.4
70°	648.4	650.1
72.5°	550.5	550.5
75°	449.2	450.8
77.5°	352.9	352.9
80°	261.7	263.4
82.5°	180.7	184.0
85°	113.1	113.1
87.5°	52.3	47.3
90°	20.2	20.2
92.5°	80.9	64.8
95°	282.0	233.4
97.5°	675.7	583.1
100°	973.6	863.2
102.5°	1266.6	1172.1
105°	1640.2	1589.4
107.5°	1885.0	1897.2
110°	1978.3	2031.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1986.5	2067.8
115°	1933.9	2046.6
117.5°	1822.2	1947.2
120°	1732.2	1853.6
122.5°	1644.5	1764.3
125°	1519.5	1629.8
127.5°	1407.1	1500.1
130°	1340.8	1426.8
132.5°	1280.6	1357.7
135°	1198.3	1264.6
137.5°	1132.1	1186.5
140°	1086.8	1137.6
142.5°	1049.2	1092.9
145°	992.9	1026.0
147.5°	949.6	977.1
150°	922.4	944.6
152.5°	899.1	915.9
155°	872.4	883.4
157.5°	851.2	859.0
160°	838.6	843.1
162.5°	830.3	834.5
165°	818.4	822.9
167.5°	809.8	811.7
170°	807.4	807.4
172.5°	801.1	799.5
175°	797.4	797.4
177.5°	793.9	792.0
180°	792.0	792.0



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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	4.54	5.38	5.54	6.40	7.75	17.70	18.55	18.70	19.56	20.91
	3H	5.24	6.00	6.25	7.02	8.39	19.54	20.30	20.55	21.32	22.69
	4H	5.54	6.26	6.56	7.29	8.66	20.18	20.90	21.20	21.92	23.30
	6H	5.79	6.45	6.82	7.48	8.87	20.60	21.27	21.64	22.30	23.69
	8H	5.86	6.49	6.90	7.54	8.92	20.72	21.35	21.76	22.40	23.79
	12H	5.88	6.48	6.92	7.52	8.93	20.79	21.39	21.83	22.43	23.84
4H	2H	11.74	12.46	12.77	13.49	14.87	17.98	18.70	19.00	19.72	21.10
	3H	13.31	13.91	14.35	14.97	16.36	20.02	20.62	21.05	21.67	23.06
	4H	13.40	13.96	14.45	15.00	16.42	20.78	21.33	21.82	22.38	23.79
	6H	13.41	13.89	14.47	14.96	16.37	21.31	21.79	22.37	22.86	24.27
	8H	13.39	13.84	14.45	14.90	16.32	21.47	21.92	22.53	22.98	24.40
	12H	13.35	13.75	14.42	14.83	16.25	21.56	21.96	22.64	23.04	24.47
8H	4H	14.84	15.29	15.90	16.35	17.77	20.84	21.28	21.89	22.34	23.77
	6H	15.09	15.45	16.16	16.56	17.98	21.46	21.83	22.54	22.93	24.35
	8H	15.10	15.43	16.19	16.51	17.95	21.68	22.00	22.76	23.09	24.53
	12H	15.07	15.36	16.16	16.44	17.92	21.82	22.10	22.91	23.19	24.67
12H	4H	14.99	15.39	16.06	16.46	17.89	20.79	21.19	21.86	22.27	23.70
	6H	15.34	15.67	16.43	16.75	18.19	21.45	21.77	22.53	22.86	24.30
	8H	15.41	15.70	16.50	16.78	18.26	21.67	21.96	22.76	23.04	24.52