

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: P936867

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

**Test Information**

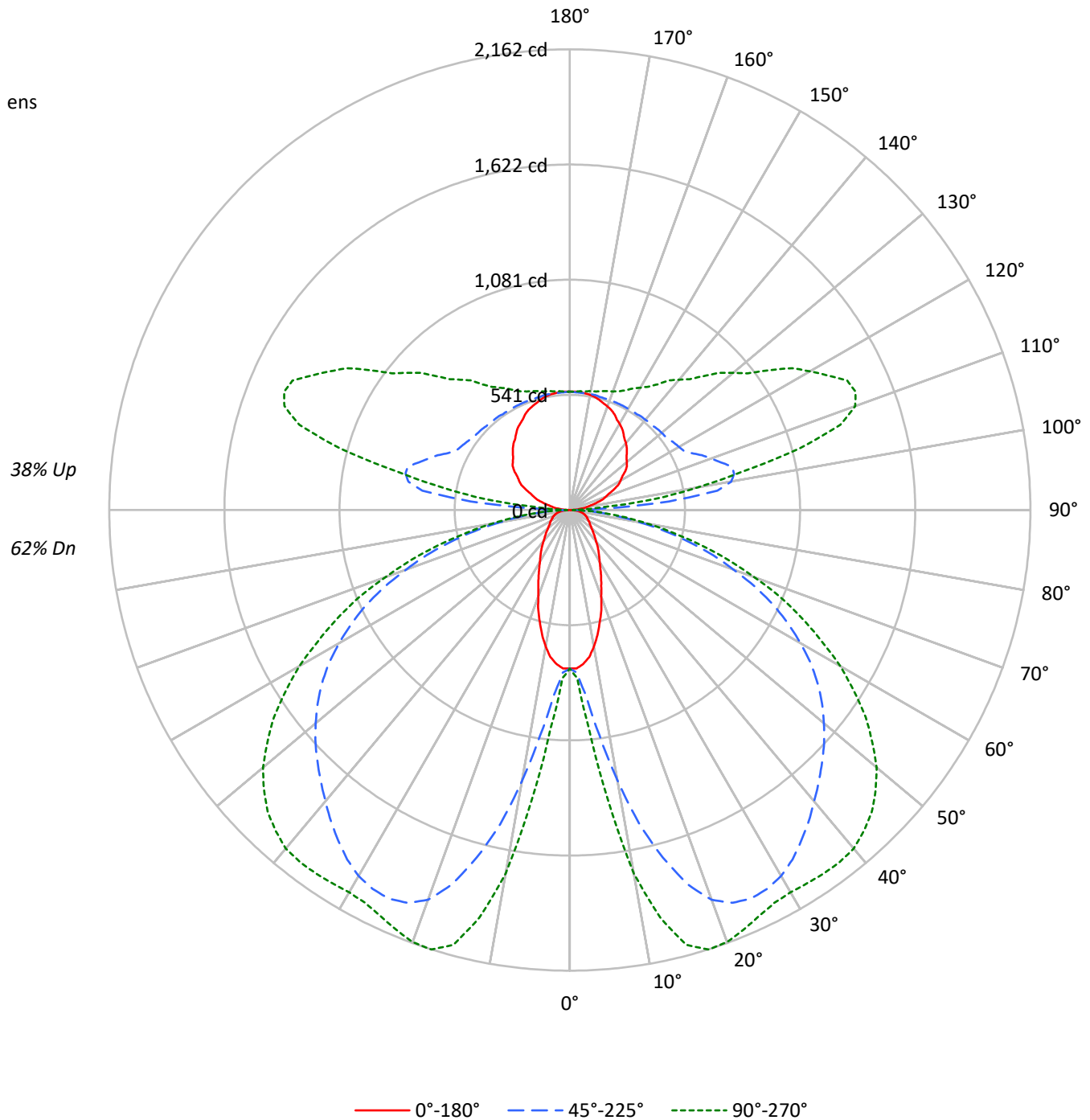
Test Method: LM-79-2019  
Report Number: P936867  
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9361.2 lumens  
Efficiency: N/A  
Efficacy: 103.6 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-Direct  
  
Input Watts (W): 90.4  
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

TEST NUMBER: P936867  
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### Luminous Intensity Polar Plot





TEST NUMBER: P936867

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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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

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

	0°	45°	90°
0°	3452	3452	3452
5°	3372	3989	4639
10°	3058	5815	7691
15°	2599	7597	9287
20°	2116	8804	9465
25°	1766	9213	9273
30°	1489	9271	9256
35°	1316	9117	9495
40°	1147	8917	9742
45°	1039	8771	9780
50°	953	8639	9618
55°	912	8445	9192
60°	934	8075	8519
65°	972	7511	7594
70°	1035	6550	6415
75°	1148	5341	5006
80°	1252	3704	3374
85°	1113	1966	1727

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9780 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.2	1.0
10°-20°	426.5	4.6
20°-30°	746.0	8.0
30°-40°	960.3	10.3
40°-50°	1072.7	11.5
50°-60°	1027.4	11.0
60°-70°	814.2	8.7
70°-80°	478.8	5.1
80°-90°	135.1	1.4
90°-100°	271.0	2.9
100°-110°	712.5	7.6
110°-120°	738.8	7.9
120°-130°	592.6	6.3
130°-140°	465.0	5.0
140°-150°	356.9	3.8
150°-160°	257.0	2.7
160°-170°	157.3	1.7
170°-180°	53.1	0.6
0°-30°	1268.7	13.6
0°-40°	2229.1	23.8
0°-60°	4329.1	46.2
0°-90°	5757.1	61.5
90°-120°	1722.2	18.4
90°-150°	3136.7	33.5
90°-180°	3604.0	38.5
0°-180°	9361.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	725	777	876	990	1026	67
15°	543	1002	1689	2048	2112	151
25°	347	1136	2012	2100	2103	160
35°	234	1086	1894	2002	2081	146
45°	160	866	1674	1918	2005	124
55°	115	550	1421	1650	1696	105
65°	91	292	1055	1186	1203	90
75°	67	179	579	636	639	70
85°	24	55	144	158	160	25
90°	4	10	28	14	14	5
95°	36	140	467	241	164	40
105°	128	194	788	1196	1116	136
115°	228	277	631	1258	1436	225
125°	317	356	574	970	1144	282
135°	378	416	556	783	888	292
145°	438	466	549	668	720	275
155°	496	509	549	603	620	228
165°	535	542	549	570	578	151
175°	556	556	553	560	560	53
180°	556	556	556	556	556	



TEST NUMBER: P936867

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-400K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
2.5°	744.0	744.0	748.7	751.1	755.9	758.3	763.1	767.8	782.2	784.6	789.4
5°	724.8	734.4	765.5	777.4	810.9	856.4	875.5	906.6	971.1	990.3	1002.3
7.5°	696.1	717.6	794.2	813.3	897.0	1016.6	1066.8	1133.8	1236.7	1287.0	1327.6
10°	650.6	696.1	832.5	877.9	1014.2	1196.0	1289.3	1382.6	1538.0	1607.5	1633.7
12.5°	600.4	674.5	873.1	935.3	1131.5	1396.9	1509.4	1612.3	1789.2	1882.6	1896.9
15°	543.0	643.5	911.4	1002.3	1255.8	1564.4	1688.8	1815.6	1980.6	2047.6	2064.3
17.5°	492.8	619.6	947.3	1042.9	1351.5	1715.1	1841.9	1947.1	2081.1	2126.5	2138.5
20°	430.6	581.3	971.1	1095.5	1452.0	1825.2	1947.1	2028.5	2119.3	2148.0	2152.8
22.5°	385.1	540.6	985.5	1114.7	1519.0	1892.1	1995.0	2059.5	2121.8	2131.3	2133.7
25°	346.9	495.1	983.1	1136.2	1576.3	1932.8	2011.7	2059.5	2095.4	2100.2	2100.2
27.5°	310.9	444.9	973.6	1141.0	1619.4	1942.4	2004.6	2038.1	2054.8	2064.3	2064.3
30°	279.9	397.1	949.6	1131.5	1638.5	1932.8	1983.0	1999.8	2016.5	2030.8	2038.1
32.5°	256.0	351.7	913.8	1112.3	1641.0	1908.9	1944.7	1954.3	1978.2	2011.7	2023.7
35°	234.4	306.2	873.1	1086.0	1626.6	1870.6	1894.5	1904.1	1951.9	2002.1	2018.9
37.5°	212.9	272.7	820.4	1040.6	1605.0	1825.2	1841.9	1858.7	1932.8	1992.5	2011.7
40°	191.4	244.0	758.3	990.3	1571.5	1770.1	1784.4	1810.8	1908.9	1978.2	1997.3
42.5°	174.6	220.0	691.3	937.7	1528.5	1707.9	1729.5	1767.7	1880.1	1954.3	1975.9
45°	160.3	196.1	619.6	865.9	1473.5	1643.3	1674.5	1727.0	1846.6	1918.4	1937.6
47.5°	145.9	179.4	545.4	791.7	1413.7	1578.8	1619.4	1679.3	1801.2	1870.6	1887.4
50°	134.0	162.7	471.2	712.8	1349.1	1509.4	1557.2	1619.4	1743.8	1808.4	1829.9
52.5°	124.4	148.3	401.9	633.9	1274.9	1437.6	1492.6	1557.2	1674.5	1736.6	1750.9
55°	114.8	136.3	342.1	550.2	1198.4	1361.1	1420.8	1483.1	1597.9	1650.5	1660.1
57.5°	110.1	126.8	291.8	471.2	1117.1	1274.9	1341.9	1399.4	1507.0	1547.6	1557.2
60°	102.8	119.6	253.5	404.2	1028.6	1193.6	1251.0	1308.4	1399.4	1432.9	1440.0
62.5°	95.7	114.8	224.8	339.7	937.7	1098.0	1155.3	1208.0	1284.5	1308.4	1318.0
65°	90.9	110.1	203.3	291.8	844.4	997.5	1054.9	1100.3	1162.5	1186.5	1191.3
67.5°	86.1	105.3	186.6	251.2	751.1	897.0	940.1	983.1	1031.0	1054.9	1057.3
70°	78.9	100.5	172.3	222.5	655.4	782.2	818.1	863.5	901.8	913.8	920.9
72.5°	74.1	93.3	162.7	200.9	557.3	672.2	705.7	732.0	765.5	777.4	777.4
75°	67.0	83.7	153.1	179.4	456.9	550.2	578.9	605.2	631.5	636.3	629.1
77.5°	59.8	74.1	131.5	150.7	356.5	435.4	459.3	473.6	495.1	499.9	502.4
80°	50.2	64.6	102.8	117.2	258.3	320.5	337.3	349.2	368.4	368.4	373.2
82.5°	38.3	50.2	74.1	83.7	174.6	220.0	234.4	241.6	253.5	253.5	253.5
85°	23.9	31.1	47.9	55.0	105.3	134.0	143.6	145.9	155.5	157.9	157.9
87.5°	11.9	16.7	31.1	33.5	55.0	69.3	69.3	74.1	74.1	71.8	69.3
90°	3.7	6.7	9.7	10.4	16.4	24.3	28.3	25.2	18.9	14.2	14.2
92.5°	14.9	40.3	65.7	72.1	101.3	140.2	159.7	139.9	100.5	70.9	68.1
95°	35.8	82.3	128.7	140.3	249.1	394.2	466.8	416.6	316.1	240.7	232.2
97.5°	61.9	102.8	143.8	154.1	335.5	577.5	698.5	666.7	603.2	555.6	539.3
100°	82.1	119.2	156.3	165.6	367.0	635.5	769.7	772.1	776.7	780.2	760.8
102.5°	99.3	134.0	168.5	177.2	381.4	653.8	789.9	830.4	911.3	972.0	955.4
105°	128.4	157.7	187.1	194.4	392.2	655.9	787.7	878.4	1059.9	1195.9	1186.9
107.5°	158.2	185.6	212.9	219.8	394.1	626.6	742.9	869.4	1122.5	1312.3	1314.5
110°	178.3	203.0	227.8	234.0	391.2	600.8	705.6	847.0	1129.9	1342.1	1351.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	198.1	221.7	245.2	251.1	391.3	578.2	671.6	816.4	1105.9	1323.1	1337.4
115°	228.0	249.7	271.5	276.9	394.9	552.3	631.0	770.5	1049.4	1258.5	1278.3
117.5°	257.4	277.2	296.9	301.9	402.3	536.0	602.9	728.8	980.6	1169.4	1191.3
120°	274.6	293.2	311.8	316.4	408.2	530.6	591.8	706.7	936.8	1109.3	1130.5
122.5°	291.4	310.1	328.8	333.6	416.7	527.7	583.2	686.7	893.9	1049.3	1070.3
125°	317.2	334.2	351.3	355.5	428.3	525.4	573.9	661.9	837.8	969.8	989.2
127.5°	338.1	355.3	372.5	376.8	439.9	524.0	566.0	641.6	792.6	906.0	922.3
130°	349.2	367.8	386.4	391.0	448.3	524.8	563.0	630.3	764.8	865.6	880.7
132.5°	360.8	379.4	398.0	402.6	455.2	525.4	560.5	620.7	741.1	831.3	844.8
135°	378.0	394.9	411.8	416.0	462.6	524.8	555.9	606.4	707.2	782.8	794.5
137.5°	395.6	412.3	429.0	433.2	473.9	528.1	555.2	597.9	683.1	747.0	756.5
140°	410.0	425.5	440.9	444.8	480.7	528.6	552.6	589.4	663.0	718.2	727.1
142.5°	421.3	435.5	449.8	453.3	486.4	530.5	552.6	584.9	649.6	698.2	705.8
145°	438.5	450.9	463.4	466.4	493.9	530.6	548.9	575.3	628.3	667.9	673.7
147.5°	455.6	467.7	479.8	482.8	504.8	534.2	548.9	569.7	611.3	642.5	647.3
150°	466.8	477.7	488.7	491.4	510.6	536.1	548.9	566.4	601.7	628.0	631.9
152.5°	478.4	486.7	494.9	497.0	514.3	537.4	548.9	563.9	593.9	616.4	619.4
155°	495.5	501.6	507.8	509.3	522.5	540.1	548.9	560.8	584.6	602.6	604.6
157.5°	508.2	514.1	520.1	521.6	530.7	542.8	548.9	558.1	576.7	590.6	592.0
160°	516.8	521.5	526.1	527.3	534.5	544.1	548.9	556.9	572.7	584.6	585.5
162.5°	525.4	528.9	532.3	533.2	538.5	545.5	548.9	555.6	569.1	579.1	579.8
165°	534.7	537.8	540.9	541.7	544.1	547.3	548.9	553.7	563.3	570.5	571.3
167.5°	543.3	544.7	546.3	546.6	548.6	551.2	552.6	555.8	562.1	566.8	567.2
170°	548.9	550.3	551.9	552.2	552.3	552.5	552.6	555.8	562.1	566.8	566.8
172.5°	551.9	552.2	552.5	552.6	552.6	552.6	552.6	555.1	560.1	563.8	563.6
175°	555.9	555.9	555.9	555.9	554.9	553.3	552.6	554.1	557.3	559.7	559.7
177.5°	555.9	555.9	555.9	555.9	555.0	553.9	553.3	554.6	557.0	558.9	558.6
180°	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	744.0	744.0
2.5°	794.2	789.4
5°	1021.4	1026.2
7.5°	1375.4	1373.0
10°	1710.3	1731.8
12.5°	1954.3	1959.1
15°	2102.6	2112.2
17.5°	2160.0	2162.4
20°	2162.4	2157.6
22.5°	2136.1	2131.3
25°	2105.0	2102.6
27.5°	2076.3	2078.7
30°	2064.3	2071.6
32.5°	2064.3	2076.3
35°	2069.1	2081.1
37.5°	2066.8	2081.1
40°	2057.2	2073.9
42.5°	2030.8	2042.8
45°	1990.2	2004.6
47.5°	1937.6	1947.1
50°	1870.6	1880.1
52.5°	1786.9	1789.2
55°	1686.4	1696.0
57.5°	1578.8	1581.1
60°	1459.1	1466.4
62.5°	1332.4	1332.4
65°	1198.4	1203.2
67.5°	1059.7	1071.6
70°	918.6	920.9
72.5°	779.8	779.8
75°	636.3	638.7
77.5°	499.9	499.9
80°	370.8	373.2
82.5°	256.0	260.8
85°	160.3	160.3
87.5°	74.1	67.0
90°	14.2	14.2
92.5°	56.8	45.5
95°	198.0	163.8
97.5°	474.3	409.3
100°	683.4	605.9
102.5°	889.0	822.7
105°	1151.3	1115.6
107.5°	1323.1	1331.7
110°	1388.5	1425.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1394.4	1451.4
115°	1357.4	1436.5
117.5°	1279.1	1366.8
120°	1215.8	1301.1
122.5°	1154.4	1238.4
125°	1066.6	1144.0
127.5°	987.6	1053.0
130°	941.1	1001.5
132.5°	898.9	953.0
135°	841.1	887.7
137.5°	794.7	832.8
140°	762.8	798.4
142.5°	736.4	767.1
145°	697.0	720.1
147.5°	666.6	685.8
150°	647.5	663.0
152.5°	631.2	642.9
155°	612.3	620.1
157.5°	597.5	602.9
160°	588.6	591.8
162.5°	582.8	585.8
165°	574.4	577.6
167.5°	568.4	569.8
170°	566.8	566.8
172.5°	562.4	561.2
175°	559.7	559.7
177.5°	557.3	555.9
180°	555.9	555.9



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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	6.29	7.32	7.13	8.19	9.28	19.47	20.50	20.31	21.37	22.46
	3H	7.01	7.93	7.87	8.81	9.93	21.32	22.25	22.18	23.13	24.25
	4H	7.32	8.19	8.19	9.08	10.21	21.98	22.85	22.85	23.74	24.87
	6H	7.57	8.38	8.46	9.28	10.42	22.41	23.22	23.30	24.12	25.26
	8H	7.65	8.42	8.54	9.33	10.47	22.54	23.31	23.43	24.22	25.37
	12H	7.67	8.41	8.57	9.31	10.48	22.61	23.35	23.51	24.26	25.43
4H	2H	13.53	14.40	14.40	15.29	16.42	19.77	20.64	20.64	21.53	22.66
	3H	15.11	15.84	16.00	16.76	17.91	21.83	22.56	22.71	23.48	24.62
	4H	15.21	15.88	16.11	16.80	17.97	22.60	23.27	23.50	24.18	25.36
	6H	15.23	15.81	16.15	16.75	17.92	23.15	23.73	24.06	24.67	25.84
	8H	15.21	15.76	16.13	16.69	17.88	23.32	23.86	24.23	24.79	25.98
	12H	15.18	15.67	16.12	16.62	17.81	23.42	23.91	24.36	24.86	26.05
8H	4H	16.67	17.21	17.59	18.15	19.33	22.67	23.22	23.59	24.15	25.34
	6H	16.92	17.37	17.87	18.35	19.53	23.31	23.76	24.26	24.74	25.92
	8H	16.94	17.34	17.90	18.31	19.51	23.53	23.93	24.49	24.90	26.10
	12H	16.92	17.27	17.88	18.23	19.48	23.69	24.04	24.65	25.00	26.25
12H	4H	16.82	17.31	17.76	18.26	19.46	22.64	23.13	23.57	24.08	25.27
	6H	17.18	17.58	18.14	18.55	19.75	23.30	23.70	24.25	24.66	25.87
	8H	17.26	17.61	18.22	18.57	19.82	23.54	23.89	24.49	24.85	26.10