

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: P936910

Luminaire Tested: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

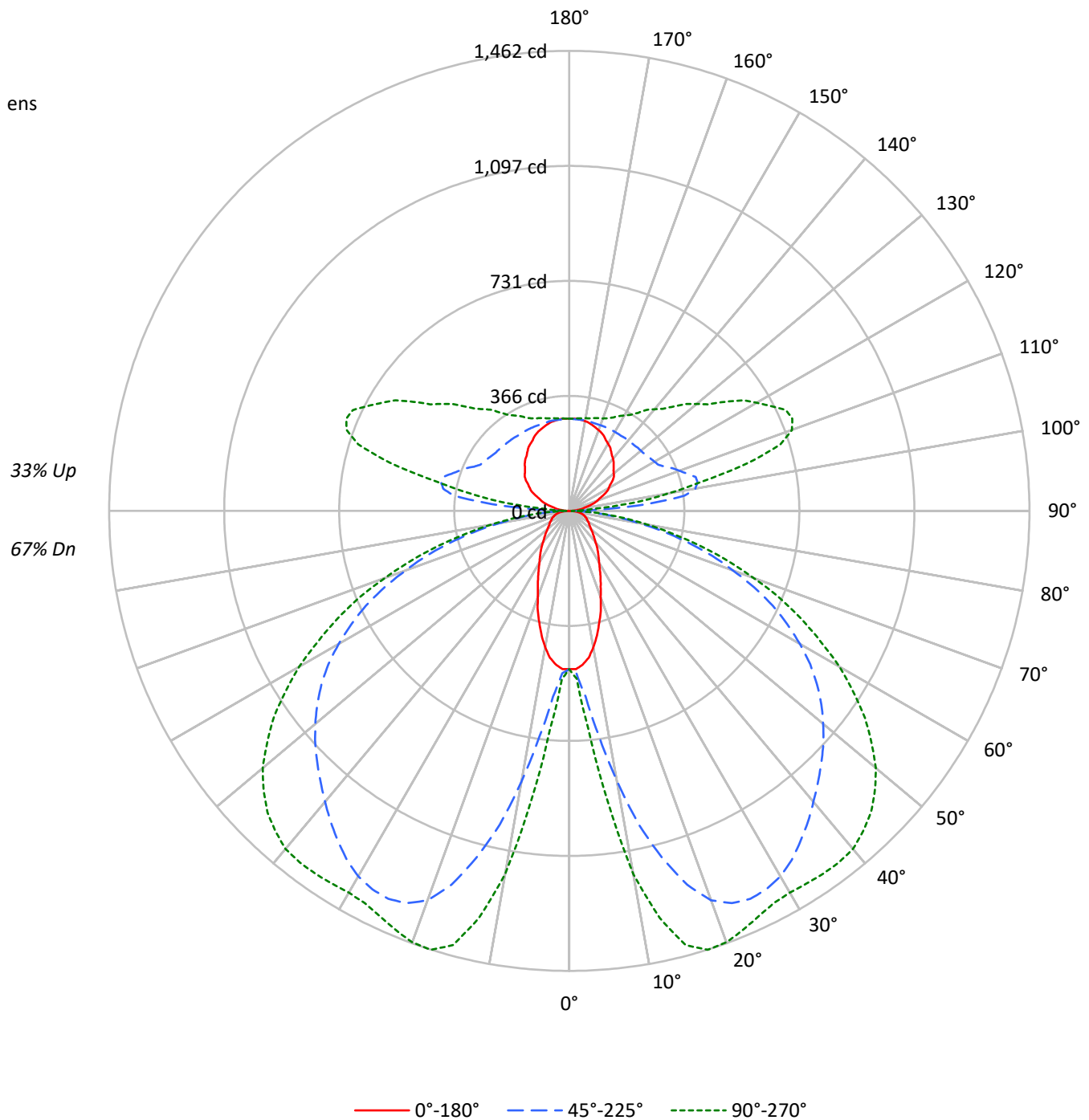
Test Method: LM-79-2019  
Report Number: P936910  
REPORT IS A COMBINATION OF REPORTS P933472 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5796.2 lumens  
Efficiency: N/A  
Efficacy: 103.5 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: Semi-Direct  
  
Input Watts (W): 56  
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: P936910  
CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4

### 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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

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

	0°	45°	90°
0°	4667	4667	4667
5°	4555	5392	6275
10°	4128	7853	10403
15°	3504	10252	12561
20°	2850	11873	12802
25°	2374	12416	12542
30°	1999	12484	12518
35°	1765	12266	12841
40°	1535	11988	13176
45°	1388	11780	13228
50°	1270	11590	13009
55°	1212	11318	12432
60°	1238	10807	11523
65°	1282	10036	10271
70°	1353	8734	8677
75°	1486	7103	6771
80°	1587	4909	4563
85°	1341	2589	2336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13228 cd/sqm



TEST NUMBER: P936910

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.1	1.1
10°-20°	288.4	5.0
20°-30°	504.5	8.7
30°-40°	649.4	11.2
40°-50°	725.4	12.5
50°-60°	694.8	12.0
60°-70°	550.6	9.5
70°-80°	323.8	5.6
80°-90°	91.1	1.6
90°-100°	143.1	2.5
100°-110°	376.3	6.5
110°-120°	390.1	6.7
120°-130°	312.9	5.4
130°-140°	245.5	4.2
140°-150°	188.5	3.3
150°-160°	135.7	2.3
160°-170°	83.0	1.4
170°-180°	28.1	0.5
0°-30°	858.0	14.8
0°-40°	1507.4	26.0
0°-60°	2927.6	50.5
0°-90°	3893.0	67.2
90°-120°	909.5	15.7
90°-150°	1656.4	28.6
90°-180°	1903.0	32.8
0°-180°	5796.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	503	503	503	503	503	
5°	490	526	592	670	694	45
15°	367	678	1142	1385	1428	102
25°	235	768	1360	1420	1422	108
35°	158	734	1281	1354	1407	99
45°	108	586	1132	1297	1356	84
55°	78	372	961	1116	1147	71
65°	62	197	713	802	814	61
75°	45	121	392	430	432	47
85°	16	37	97	107	108	17
90°	2	6	15	8	8	3
95°	19	74	246	127	86	21
105°	68	103	416	632	589	72
115°	120	146	333	665	759	119
125°	168	188	303	512	604	149
135°	200	220	294	413	469	154
145°	232	246	290	353	380	145
155°	262	269	290	318	328	120
165°	282	286	290	301	305	80
175°	294	294	292	296	296	28
180°	294	294	294	294	294	



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CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0
2.5°	503.0	503.0	506.3	507.9	511.2	512.8	516.0	519.3	529.0	530.6	533.8
5°	490.1	496.6	517.7	525.7	548.4	579.1	592.1	613.1	656.8	669.7	677.8
7.5°	470.7	485.3	537.1	550.0	606.6	687.5	721.5	766.8	836.3	870.2	897.8
10°	440.0	470.7	562.9	593.7	685.8	808.8	871.9	935.0	1040.1	1087.1	1104.8
12.5°	406.0	456.2	590.4	632.5	765.2	944.7	1020.7	1090.3	1210.0	1273.1	1282.8
15°	367.2	435.2	616.3	677.8	849.2	1057.9	1142.0	1227.8	1339.5	1384.7	1396.0
17.5°	333.3	419.0	640.6	705.3	913.9	1159.8	1245.6	1316.8	1407.3	1438.1	1446.1
20°	291.2	393.1	656.8	740.9	981.9	1234.3	1316.8	1371.8	1433.2	1452.6	1455.9
22.5°	260.4	365.6	666.4	753.8	1027.2	1279.5	1349.1	1392.8	1434.9	1441.4	1442.9
25°	234.6	334.9	664.9	768.3	1066.0	1307.0	1360.5	1392.8	1417.1	1420.3	1420.3
27.5°	210.3	300.9	658.4	771.6	1095.1	1313.5	1355.6	1378.3	1389.5	1396.0	1396.0
30°	189.3	268.5	642.2	765.2	1108.1	1307.0	1341.0	1352.4	1363.6	1373.4	1378.3
32.5°	173.1	237.8	618.0	752.2	1109.7	1290.9	1315.2	1321.6	1337.8	1360.5	1368.5
35°	158.5	207.1	590.4	734.4	1100.0	1265.0	1281.1	1287.6	1319.9	1354.0	1365.3
37.5°	144.0	184.4	554.9	703.7	1085.4	1234.3	1245.6	1256.9	1307.0	1347.5	1360.5
40°	129.4	165.0	512.8	669.7	1062.8	1197.0	1206.8	1224.5	1290.9	1337.8	1350.7
42.5°	118.1	148.8	467.5	634.1	1033.6	1155.0	1169.6	1195.5	1271.5	1321.6	1336.2
45°	108.4	132.7	419.0	585.6	996.4	1111.4	1132.4	1167.9	1248.8	1297.4	1310.3
47.5°	98.7	121.3	368.8	535.5	956.0	1067.7	1095.1	1135.6	1218.0	1265.0	1276.4
50°	90.6	110.0	318.6	482.0	912.3	1020.7	1053.1	1095.1	1179.2	1222.9	1237.5
52.5°	84.1	100.3	271.8	428.7	862.2	972.2	1009.4	1053.1	1132.4	1174.4	1184.1
55°	77.6	92.2	231.4	372.1	810.4	920.4	960.9	1002.9	1080.6	1116.1	1122.6
57.5°	74.4	85.8	197.3	318.6	755.4	862.2	907.5	946.3	1019.1	1046.6	1053.1
60°	69.6	80.9	171.5	273.4	695.6	807.2	846.1	884.9	946.3	969.0	973.8
62.5°	64.7	77.6	152.1	229.7	634.1	742.5	781.3	816.9	868.7	884.9	891.3
65°	61.5	74.4	137.5	197.3	571.0	674.6	713.4	744.2	786.2	802.4	805.6
67.5°	58.2	71.2	126.2	169.9	507.9	606.6	635.7	664.9	697.2	713.4	715.0
70°	53.3	68.0	116.4	150.5	443.2	529.0	553.2	583.9	609.8	618.0	622.8
72.5°	50.2	63.1	110.0	135.8	377.0	454.6	477.2	495.0	517.7	525.7	525.7
75°	45.3	56.6	103.5	121.3	309.0	372.1	391.5	409.3	427.0	430.3	425.4
77.5°	40.4	50.2	89.0	101.9	241.0	294.4	310.6	320.3	334.9	338.0	339.7
80°	33.9	43.7	69.6	79.3	174.7	216.7	228.1	236.1	249.1	249.1	252.4
82.5°	25.9	33.9	50.2	56.6	118.1	148.8	158.5	163.4	171.5	171.5	171.5
85°	16.2	21.0	32.3	37.2	71.2	90.6	97.0	98.7	105.2	106.8	106.8
87.5°	8.1	11.3	21.0	22.7	37.2	46.9	46.9	50.2	50.2	48.6	46.9
90°	2.0	3.5	5.2	5.5	8.7	12.9	15.0	13.3	9.9	7.5	7.5
92.5°	7.8	21.2	34.7	38.0	53.4	74.0	84.3	73.9	53.1	37.5	35.9
95°	18.9	43.4	68.0	74.1	131.5	208.1	246.5	219.9	166.8	127.1	122.6
97.5°	32.7	54.3	75.9	81.4	177.1	305.0	368.8	352.1	318.5	293.4	284.8
100°	43.3	62.9	82.6	87.5	193.8	335.6	406.5	407.7	410.2	412.0	401.8
102.5°	52.4	70.7	89.0	93.6	201.4	345.2	417.1	438.5	481.3	513.3	504.5
105°	67.8	83.3	98.8	102.7	207.1	346.4	416.0	463.9	559.6	631.5	626.8
107.5°	83.6	98.0	112.4	116.1	208.1	331.0	392.3	459.2	592.8	693.0	694.2
110°	94.2	107.2	120.3	123.5	206.6	317.3	372.6	447.3	596.7	708.8	713.7



TEST NUMBER: P936910

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	104.6	117.0	129.4	132.6	206.6	305.3	354.7	431.2	584.0	698.7	706.3
115°	120.4	131.8	143.3	146.2	208.5	291.6	333.2	406.8	554.1	664.6	675.0
117.5°	135.9	146.4	156.8	159.4	212.4	283.1	318.4	384.9	517.8	617.5	629.0
120°	145.0	154.9	164.6	167.1	215.6	280.2	312.5	373.2	494.7	585.8	597.1
122.5°	153.9	163.9	173.7	176.2	220.1	278.7	307.9	362.6	472.1	554.1	565.2
125°	167.5	176.5	185.5	187.8	226.2	277.4	303.1	349.5	442.4	512.1	522.4
127.5°	178.5	187.7	196.7	199.0	232.3	276.8	298.9	338.8	418.5	478.4	487.0
130°	184.4	194.3	204.0	206.5	236.8	277.1	297.3	332.9	403.9	457.2	465.1
132.5°	190.5	200.4	210.1	212.6	240.4	277.4	296.0	327.7	391.3	439.0	446.2
135°	199.6	208.5	217.5	219.7	244.4	277.1	293.6	320.2	373.4	413.4	419.5
137.5°	208.9	217.7	226.6	228.8	250.3	278.9	293.2	315.7	360.7	394.4	399.5
140°	216.5	224.7	232.9	234.9	253.8	279.2	291.8	311.3	350.2	379.3	384.0
142.5°	222.5	230.0	237.5	239.4	256.9	280.1	291.8	308.9	343.0	368.6	372.6
145°	231.5	238.0	244.6	246.3	260.8	280.2	289.9	303.8	331.7	352.7	355.7
147.5°	240.6	247.0	253.3	255.0	266.6	282.1	289.9	300.9	322.8	339.3	341.9
150°	246.5	252.2	258.0	259.5	269.6	283.1	289.9	299.1	317.7	331.6	333.7
152.5°	252.6	257.0	261.4	262.4	271.6	283.7	289.9	297.8	313.7	325.5	327.0
155°	261.7	264.9	268.2	268.9	275.9	285.2	289.9	296.2	308.8	318.3	319.3
157.5°	268.3	271.5	274.7	275.4	280.2	286.6	289.9	294.7	304.6	311.9	312.7
160°	272.9	275.3	277.8	278.4	282.2	287.3	289.9	294.1	302.5	308.8	309.2
162.5°	277.4	279.2	281.1	281.5	284.3	288.0	289.9	293.4	300.5	305.8	306.2
165°	282.4	284.0	285.7	286.1	287.4	289.0	289.9	292.3	297.4	301.2	301.6
167.5°	286.9	287.7	288.4	288.6	289.7	291.1	291.8	293.5	296.8	299.3	299.5
170°	289.9	290.6	291.4	291.6	291.7	291.8	291.8	293.5	296.8	299.3	299.3
172.5°	291.4	291.6	291.8	291.8	291.8	291.8	291.8	293.1	295.7	297.7	297.5
175°	293.6	293.6	293.6	293.6	293.0	292.2	291.8	292.6	294.4	295.6	295.6
177.5°	293.6	293.6	293.6	293.6	293.1	292.5	292.2	292.9	294.3	295.2	295.0
180°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6



TEST NUMBER: P936910

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	503.0	503.0
2.5°	537.1	533.8
5°	690.7	694.0
7.5°	930.2	928.6
10°	1156.6	1171.2
12.5°	1321.6	1324.8
15°	1422.0	1428.4
17.5°	1460.8	1462.4
20°	1462.4	1459.1
22.5°	1444.5	1441.4
25°	1423.5	1422.0
27.5°	1404.1	1405.7
30°	1396.0	1400.9
32.5°	1396.0	1404.1
35°	1399.3	1407.3
37.5°	1397.7	1407.3
40°	1391.2	1402.5
42.5°	1373.4	1381.4
45°	1345.9	1355.6
47.5°	1310.3	1316.8
50°	1265.0	1271.5
52.5°	1208.4	1210.0
55°	1140.4	1146.9
57.5°	1067.7	1069.3
60°	986.8	991.7
62.5°	901.0	901.0
65°	810.4	813.7
67.5°	716.6	724.7
70°	621.2	622.8
72.5°	527.3	527.3
75°	430.3	431.9
77.5°	338.0	338.0
80°	250.8	252.4
82.5°	173.1	176.3
85°	108.4	108.4
87.5°	50.2	45.3
90°	7.5	7.5
92.5°	30.0	24.0
95°	104.5	86.5
97.5°	250.5	216.2
100°	360.9	320.0
102.5°	469.5	434.5
105°	608.0	589.2
107.5°	698.6	703.2
110°	733.3	752.8





TEST NUMBER: P936910

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	736.4	766.5
115°	716.8	758.6
117.5°	675.4	721.8
120°	642.0	687.1
122.5°	609.6	654.0
125°	563.2	604.1
127.5°	521.5	556.0
130°	497.0	528.9
132.5°	474.7	503.2
135°	444.2	468.7
137.5°	419.6	439.8
140°	402.9	421.7
142.5°	388.9	405.2
145°	368.1	380.3
147.5°	352.0	362.1
150°	342.0	350.2
152.5°	333.3	339.5
155°	323.4	327.5
157.5°	315.6	318.4
160°	310.9	312.5
162.5°	307.8	309.4
165°	303.3	305.1
167.5°	300.2	300.9
170°	299.3	299.3
172.5°	296.9	296.4
175°	295.6	295.6
177.5°	294.4	293.6
180°	293.6	293.6



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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	7.77	8.87	8.56	9.68	10.68	20.91	22.01	21.70	22.82	23.82
	3H	8.49	9.48	9.29	10.31	11.34	22.75	23.74	23.55	24.56	25.59
	4H	8.80	9.74	9.62	10.57	11.61	23.40	24.33	24.21	25.16	26.20
	6H	9.07	9.93	9.90	10.77	11.83	23.83	24.69	24.66	25.53	26.59
	8H	9.14	9.97	9.98	10.83	11.88	23.95	24.77	24.79	25.63	26.69
	12H	9.17	9.95	10.01	10.81	11.89	24.02	24.80	24.86	25.66	26.74
4H	2H	14.99	15.93	15.81	16.76	17.80	21.21	22.15	22.03	22.98	24.02
	3H	16.58	17.37	17.41	18.23	19.29	23.27	24.05	24.10	24.92	25.97
	4H	16.69	17.40	17.53	18.27	19.35	24.03	24.75	24.88	25.61	26.69
	6H	16.71	17.33	17.57	18.22	19.31	24.57	25.19	25.44	26.08	27.17
	8H	16.70	17.28	17.56	18.16	19.26	24.73	25.32	25.60	26.20	27.30
	12H	16.66	17.19	17.55	18.09	19.20	24.83	25.36	25.72	26.26	27.37
8H	4H	18.14	18.72	19.01	19.61	20.71	24.11	24.70	24.98	25.58	26.68
	6H	18.39	18.88	19.29	19.80	20.90	24.74	25.23	25.64	26.15	27.25
	8H	18.42	18.85	19.32	19.76	20.88	24.96	25.39	25.86	26.30	27.42
	12H	18.40	18.77	19.30	19.68	20.85	25.11	25.48	26.01	26.39	27.56
12H	4H	18.29	18.82	19.18	19.72	20.83	24.08	24.60	24.97	25.51	26.61
	6H	18.65	19.08	19.56	20.00	21.12	24.73	25.16	25.63	26.08	27.19
	8H	18.73	19.11	19.64	20.02	21.19	24.96	25.34	25.87	26.25	27.42