

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: P937710

Luminaire Tested: SQ4-FB-100U-125D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937710
REPORT IS A COMBINATION OF REPORTS P933568 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

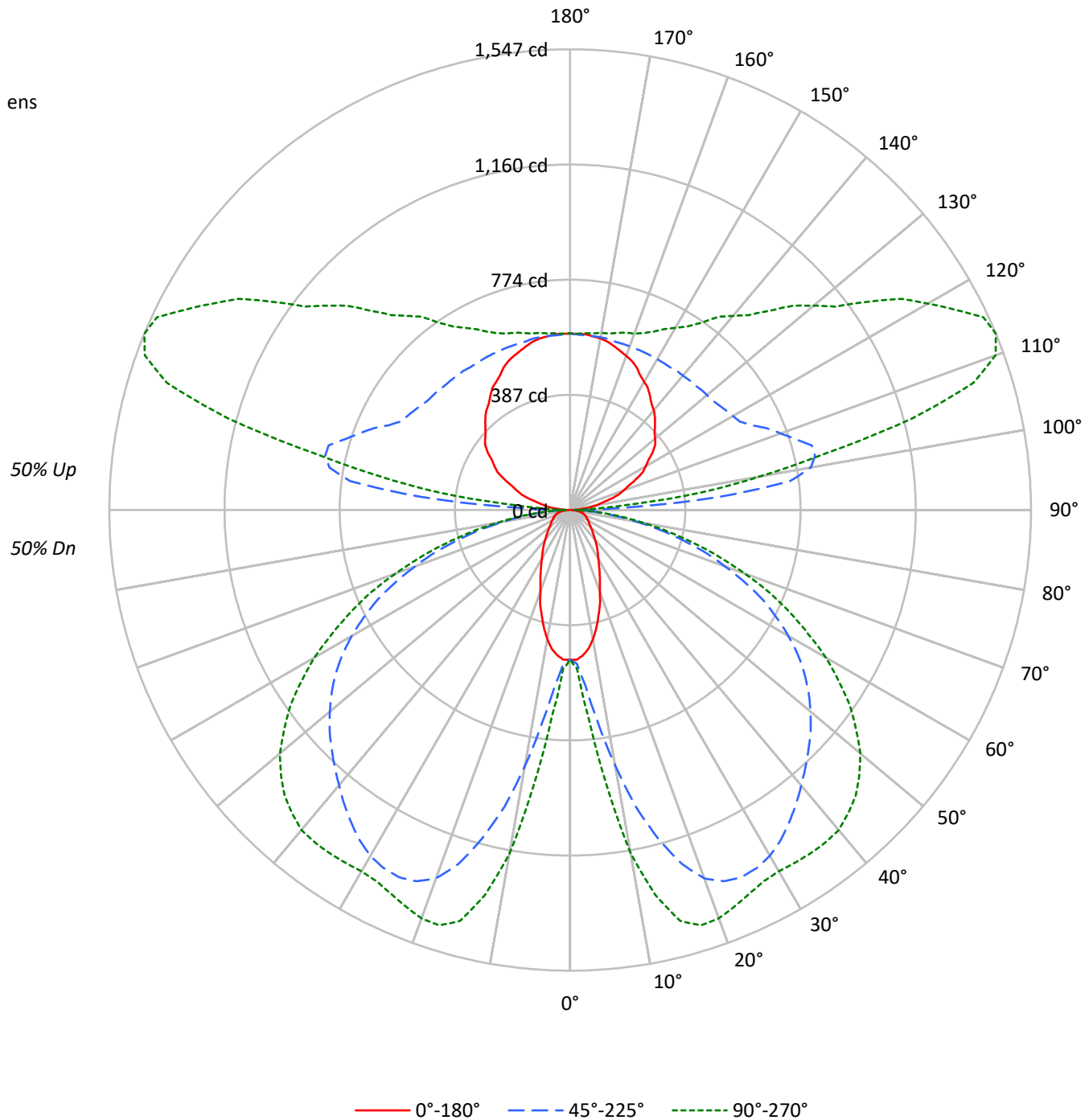
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7735.0 lumens
Efficiency: N/A
Efficacy: 112.4 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): 68.8
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: P937710
CATALOG NUMBER: SQ4-FB-100U-125D-830-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P937710

CATALOG NUMBER: SQ4-FB-100U-125D-830-1D-UNV-STD-W-4

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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

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: P937710

CATALOG NUMBER: SQ4-FB-100U-125D-830-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	0.8
10°-20°	288.4	3.7
20°-30°	504.5	6.5
30°-40°	649.4	8.4
40°-50°	725.4	9.4
50°-60°	694.8	9.0
60°-70°	550.6	7.1
70°-80°	323.8	4.2
80°-90°	92.2	1.2
90°-100°	288.8	3.7
100°-110°	759.3	9.8
110°-120°	787.3	10.2
120°-130°	631.5	8.2
130°-140°	495.5	6.4
140°-150°	380.3	4.9
150°-160°	273.9	3.5
160°-170°	167.6	2.2
170°-180°	56.6	0.7
0°-30°	858.0	11.1
0°-40°	1507.4	19.5
0°-60°	2927.6	37.8
0°-90°	3894.1	50.3
90°-120°	1835.4	23.7
90°-150°	3342.8	43.2
90°-180°	3841.0	49.7
0°-180°	7735.0	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°	4	11	30	15	15	4
95°	38	150	497	256	175	42
105°	137	207	840	1274	1189	145
115°	243	295	672	1341	1531	240
125°	338	379	612	1033	1219	300
135°	403	443	592	834	946	312
145°	467	497	585	712	768	293
155°	528	543	585	642	661	243
165°	570	577	585	608	616	161
175°	592	592	589	596	596	56
180°	592	592	592	592	592	



TEST NUMBER: P937710

CATALOG NUMBER: SQ4-FB-100U-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°	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.9	20.2	15.1	15.1
92.5°	15.9	42.9	70.0	76.8	107.9	149.4	170.2	149.1	107.1	75.5	72.6
95°	38.1	87.7	137.2	149.5	265.5	420.1	497.4	443.9	336.8	256.5	247.4
97.5°	66.0	109.7	153.3	164.2	357.6	615.5	744.3	710.5	642.8	592.1	574.7
100°	87.5	127.1	166.6	176.6	391.2	677.3	820.3	822.8	827.7	831.4	810.8
102.5°	105.7	142.7	179.6	188.9	406.6	696.7	841.9	885.0	971.2	1035.8	1018.1
105°	136.8	168.1	199.3	207.2	418.0	698.9	839.5	936.1	1129.4	1274.4	1265.0
107.5°	168.6	197.8	227.0	234.2	420.1	667.8	791.7	926.6	1196.2	1398.5	1400.8
110°	190.1	216.4	242.7	249.3	416.8	640.2	751.9	902.7	1204.2	1430.3	1440.2



TEST NUMBER: P937710

CATALOG NUMBER: SQ4-FB-100U-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°	211.2	236.2	261.3	267.6	417.0	616.1	715.8	870.1	1178.6	1410.0	1425.2
115°	242.9	266.1	289.2	295.0	420.8	588.6	672.5	821.1	1118.3	1341.3	1362.3
117.5°	274.4	295.4	316.4	321.7	428.7	571.3	642.6	776.8	1045.0	1246.2	1269.6
120°	292.6	312.4	332.2	337.2	435.0	565.5	630.7	753.2	998.4	1182.2	1204.9
122.5°	310.6	330.6	350.6	355.5	444.2	562.4	621.5	731.8	952.6	1118.1	1140.5
125°	338.0	356.2	374.4	379.0	456.5	559.8	611.6	705.3	892.8	1033.4	1054.1
127.5°	360.2	378.6	397.0	401.6	468.8	558.4	603.2	683.7	844.7	965.5	982.9
130°	372.2	392.0	411.7	416.7	477.8	559.4	600.1	671.8	815.1	922.5	938.6
132.5°	384.5	404.3	424.1	429.1	485.1	559.8	597.2	661.4	789.7	885.9	900.4
135°	402.9	420.8	438.9	443.4	493.1	559.4	592.5	646.3	753.6	834.2	846.6
137.5°	421.5	439.4	457.2	461.7	505.0	562.8	591.7	637.1	727.9	796.1	806.2
140°	437.0	453.4	469.9	474.0	512.3	563.4	588.9	628.1	706.6	765.5	774.9
142.5°	448.9	464.1	479.3	483.2	518.4	565.4	588.9	623.3	692.2	744.0	752.2
145°	467.2	480.5	493.7	497.0	526.4	565.5	585.0	613.2	669.5	711.7	718.0
147.5°	485.6	498.5	511.3	514.5	538.0	569.3	585.0	607.2	651.5	684.8	689.9
150°	497.4	509.1	520.7	523.7	544.2	571.4	585.0	603.7	641.1	669.2	673.3
152.5°	509.7	518.5	527.4	529.6	548.1	572.6	585.0	600.9	632.9	656.9	660.0
155°	528.1	534.6	541.2	542.8	556.9	575.6	585.0	597.7	623.1	642.1	644.2
157.5°	541.6	548.0	554.3	555.9	565.6	578.5	585.0	594.8	614.6	629.4	630.9
160°	550.8	555.7	560.6	561.8	569.6	579.8	585.0	593.5	610.4	623.1	624.0
162.5°	559.8	563.6	567.3	568.2	573.8	581.2	585.0	592.1	606.4	617.1	617.9
165°	569.8	573.1	576.5	577.3	579.9	583.3	585.0	590.1	600.4	608.0	608.9
167.5°	579.0	580.6	582.2	582.6	584.7	587.5	588.9	592.2	598.9	604.0	604.4
170°	585.0	586.5	588.1	588.5	588.6	588.8	588.9	592.2	598.9	604.0	604.0
172.5°	588.1	588.5	588.8	588.9	588.9	588.9	588.9	591.6	596.8	600.8	600.6
175°	592.5	592.5	592.5	592.5	591.3	589.7	588.9	590.6	594.0	596.4	596.4
177.5°	592.5	592.5	592.5	592.5	591.6	590.3	589.7	591.0	593.7	595.7	595.3
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



TEST NUMBER: P937710

CATALOG NUMBER: SQ4-FB-100U-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°	15.1	15.1
92.5°	60.5	48.5
95°	211.0	174.6
97.5°	505.4	436.2
100°	728.3	645.8
102.5°	947.5	876.8
105°	1226.9	1189.0
107.5°	1410.0	1419.2
110°	1479.8	1519.4



TEST NUMBER: P937710

CATALOG NUMBER: SQ4-FB-100U-125D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1486.0	1546.8
115°	1446.6	1530.9
117.5°	1363.1	1456.6
120°	1295.8	1386.6
122.5°	1230.2	1319.8
125°	1136.6	1219.2
127.5°	1052.6	1122.2
130°	1002.9	1067.3
132.5°	957.9	1015.6
135°	896.2	946.0
137.5°	846.9	887.6
140°	813.0	850.9
142.5°	784.9	817.6
145°	742.7	767.5
147.5°	710.4	730.9
150°	689.9	706.6
152.5°	672.5	685.2
155°	652.6	660.9
157.5°	636.8	642.6
160°	627.3	630.7
162.5°	621.1	624.3
165°	612.2	615.6
167.5°	605.7	607.2
170°	604.0	604.0
172.5°	599.3	598.1
175°	596.4	596.4
177.5°	594.0	592.5
180°	592.5	592.5



TEST NUMBER: P937710
 CATALOG NUMBER: SQ4-FB-100U-125D-830-1D-UNV-STD-W-4

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	6.38	7.28	7.32	8.25	9.51	19.52	20.42	20.46	21.39	22.65
	3H	7.09	7.90	8.04	8.87	10.16	21.34	22.15	22.30	23.13	24.42
	4H	7.39	8.16	8.36	9.14	10.43	21.98	22.75	22.95	23.73	25.02
	6H	7.64	8.35	8.62	9.34	10.64	22.40	23.11	23.38	24.10	25.40
	8H	7.71	8.39	8.70	9.39	10.69	22.52	23.19	23.50	24.20	25.50
	12H	7.73	8.37	8.72	9.37	10.70	22.58	23.22	23.57	24.22	25.55
4H	2H	13.57	14.34	14.55	15.32	16.62	19.80	20.57	20.77	21.55	22.84
	3H	15.15	15.79	16.13	16.80	18.11	21.83	22.47	22.82	23.49	24.79
	4H	15.24	15.83	16.24	16.84	18.17	22.59	23.18	23.58	24.18	25.51
	6H	15.26	15.77	16.26	16.79	18.12	23.12	23.63	24.13	24.65	25.98
	8H	15.24	15.71	16.24	16.73	18.08	23.27	23.75	24.28	24.77	26.12
	12H	15.19	15.62	16.22	16.66	18.01	23.36	23.79	24.39	24.83	26.18
8H	4H	16.68	17.16	17.69	18.18	19.52	22.65	23.13	23.66	24.15	25.49
	6H	16.93	17.32	17.96	18.38	19.72	23.27	23.67	24.31	24.73	26.07
	8H	16.94	17.29	17.99	18.34	19.70	23.49	23.83	24.53	24.88	26.24
	12H	16.91	17.22	17.96	18.26	19.67	23.62	23.93	24.67	24.97	26.38
12H	4H	16.82	17.25	17.85	18.29	19.64	22.61	23.04	23.64	24.08	25.43
	6H	17.18	17.53	18.22	18.58	19.94	23.26	23.61	24.30	24.65	26.01
	8H	17.25	17.56	18.30	18.60	20.00	23.48	23.79	24.53	24.83	26.23