

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: P937460

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937460
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

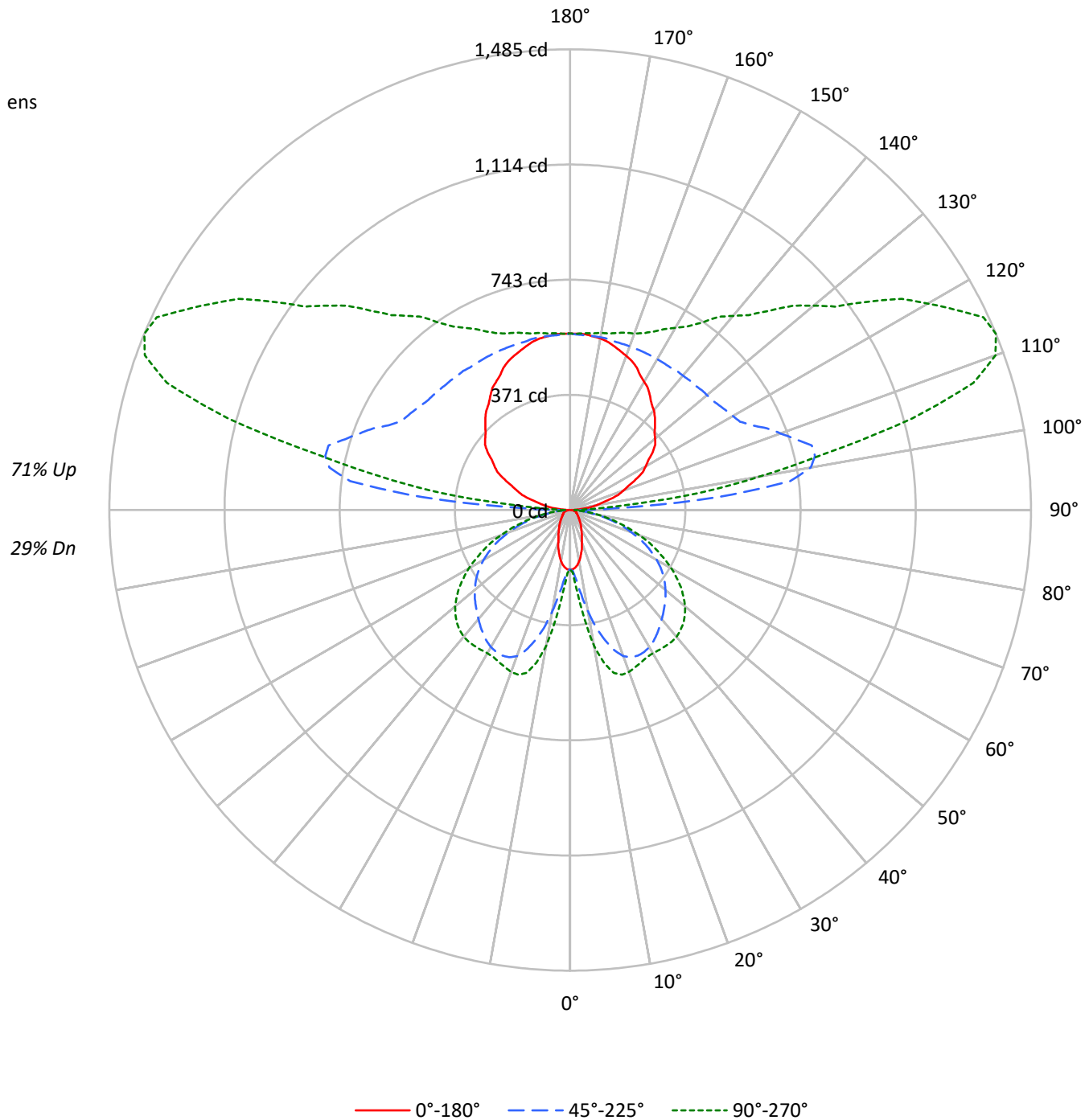
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5170.3 lumens
Efficiency: N/A
Efficacy: 125.5 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-Indirect

Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (A_{in}): 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: P937460
CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P937460

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1776	1776	1776
5°	1734	2052	2388
10°	1571	2989	3959
15°	1334	3902	4780
20°	1085	4519	4872
25°	904	4725	4774
30°	760	4750	4765
35°	671	4669	4887
40°	585	4562	5014
45°	527	4482	5034
50°	484	4411	4951
55°	461	4308	4732
60°	470	4113	4385
65°	488	3819	3908
70°	515	3323	3302
75°	567	2702	2577
80°	604	1868	1737
85°	505	988	888

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5034 cd/sqm



TEST NUMBER: P937460

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.8	0.5
10°-20°	109.8	2.1
20°-30°	192.0	3.7
30°-40°	247.2	4.8
40°-50°	276.1	5.3
50°-60°	264.4	5.1
60°-70°	209.5	4.1
70°-80°	123.2	2.4
80°-90°	36.4	0.7
90°-100°	277.2	5.4
100°-110°	728.9	14.1
110°-120°	755.8	14.6
120°-130°	606.2	11.7
130°-140°	475.7	9.2
140°-150°	365.1	7.1
150°-160°	262.9	5.1
160°-170°	160.9	3.1
170°-180°	54.4	1.1
0°-30°	326.5	6.3
0°-40°	573.7	11.1
0°-60°	1114.2	21.5
0°-90°	1483.3	28.7
90°-120°	1761.9	34.1
90°-150°	3208.8	62.1
90°-180°	3687.0	71.3
0°-180°	5170.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	191	191	191	191	191	
5°	187	200	225	255	264	17
15°	140	258	435	527	544	39
25°	89	292	518	540	541	41
35°	60	280	488	515	536	38
45°	41	223	431	494	516	32
55°	30	142	366	425	436	27
65°	23	75	272	305	310	23
75°	17	46	149	164	164	18
85°	6	14	37	41	41	6
90°	4	11	29	14	14	4
95°	37	144	478	246	168	41
105°	131	199	806	1223	1141	139
115°	233	283	646	1288	1470	230
125°	324	364	587	992	1170	288
135°	387	426	569	801	908	299
145°	448	477	562	683	737	281
155°	507	521	562	616	634	233
165°	547	554	562	584	591	154
175°	569	569	565	572	572	54
180°	569	569	569	569	569	



TEST NUMBER: P937460

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4
2.5°	191.4	191.4	192.7	193.3	194.6	195.2	196.4	197.6	201.3	201.9	203.2
5°	186.6	189.0	197.0	200.1	208.7	220.4	225.3	233.4	250.0	254.8	258.0
7.5°	179.1	184.7	204.4	209.3	230.9	261.6	274.6	291.8	318.3	331.2	341.7
10°	167.5	179.1	214.3	225.9	261.0	307.8	331.8	355.9	395.9	413.7	420.5
12.5°	154.5	173.6	224.7	240.7	291.2	359.6	388.5	415.0	460.5	484.5	488.2
15°	139.8	165.6	234.6	258.0	323.2	402.6	434.6	467.3	509.8	526.9	531.3
17.5°	126.8	159.5	243.8	268.4	347.8	441.4	474.1	501.2	535.6	547.3	550.3
20°	110.9	149.6	250.0	282.0	373.7	469.8	501.2	522.1	545.5	552.8	554.1
22.5°	99.1	139.1	253.7	286.9	390.9	486.9	513.5	530.1	546.0	548.5	549.1
25°	89.3	127.5	253.0	292.5	405.7	497.4	517.8	530.1	539.3	540.5	540.5
27.5°	80.0	114.5	250.5	293.7	416.8	499.9	515.9	524.6	528.9	531.3	531.3
30°	72.0	102.2	244.4	291.2	421.7	497.4	510.3	514.6	519.0	522.7	524.6
32.5°	65.9	90.5	235.2	286.2	422.3	491.2	500.5	503.0	509.1	517.8	520.8
35°	60.3	78.8	224.7	279.5	418.7	481.4	487.6	490.0	502.3	515.3	519.6
37.5°	54.8	70.2	211.2	267.8	413.1	469.8	474.1	478.4	497.4	512.8	517.8
40°	49.3	62.8	195.2	254.8	404.5	455.5	459.3	466.0	491.2	509.1	514.1
42.5°	45.0	56.6	177.9	241.4	393.4	439.6	445.1	455.0	483.9	503.0	508.5
45°	41.2	50.5	159.5	222.8	379.2	423.0	430.9	444.5	475.3	493.7	498.7
47.5°	37.5	46.2	140.4	203.8	363.9	406.4	416.8	432.1	463.6	481.4	485.7
50°	34.5	41.8	121.3	183.4	347.3	388.5	400.8	416.8	448.8	465.5	471.0
52.5°	32.0	38.2	103.4	163.2	328.2	370.0	384.1	400.8	430.9	446.9	450.7
55°	29.5	35.1	88.0	141.6	308.4	350.3	365.7	381.7	411.2	424.8	427.3
57.5°	28.4	32.7	75.1	121.3	287.5	328.2	345.3	360.1	387.8	398.3	400.8
60°	26.4	30.7	65.2	104.1	264.8	307.2	322.0	336.8	360.1	368.7	370.7
62.5°	24.6	29.5	57.9	87.5	241.4	282.6	297.3	310.9	330.6	336.8	339.2
65°	23.4	28.4	52.3	75.1	217.3	256.7	271.5	283.2	299.2	305.3	306.6
67.5°	22.2	27.1	48.0	64.6	193.3	230.9	241.9	253.0	265.3	271.5	272.1
70°	20.3	25.9	44.3	57.3	168.7	201.3	210.5	222.3	232.1	235.2	237.0
72.5°	19.1	24.0	41.8	51.8	143.4	173.0	181.6	188.4	197.0	200.1	200.1
75°	17.3	21.6	39.4	46.2	117.6	141.6	148.9	155.7	162.5	163.7	161.9
77.5°	15.4	19.1	33.9	38.8	91.8	112.1	118.2	121.9	127.5	128.7	129.3
80°	12.9	16.6	26.4	30.2	66.5	82.5	86.8	89.8	94.8	94.8	96.1
82.5°	9.8	12.9	19.1	21.6	45.0	56.6	60.3	62.2	65.2	65.2	65.2
85°	6.1	8.0	12.3	14.1	27.1	34.5	37.0	37.5	40.0	40.7	40.7
87.5°	3.1	4.3	8.0	8.6	14.1	17.9	17.9	19.1	19.1	18.4	17.9
90°	3.9	6.9	9.9	10.6	16.8	25.0	29.0	25.8	19.4	14.5	14.5
92.5°	15.2	41.2	67.2	73.7	103.6	143.4	163.3	143.2	102.8	72.5	69.7
95°	36.6	84.2	131.7	143.5	254.8	403.2	477.5	426.1	323.3	246.2	237.5
97.5°	63.3	105.3	147.2	157.7	343.3	590.8	714.5	682.0	617.1	568.3	551.7
100°	84.0	122.0	160.0	169.5	375.5	650.2	787.5	789.9	794.5	798.1	778.3
102.5°	101.5	137.0	172.4	181.3	390.3	668.8	808.1	849.5	932.3	994.3	977.3
105°	131.3	161.3	191.3	198.9	401.2	670.9	805.8	898.6	1084.2	1223.4	1214.3
107.5°	161.9	189.9	217.9	224.8	403.2	641.0	759.9	889.4	1148.3	1342.5	1344.7
110°	182.4	207.8	233.0	239.3	400.1	614.6	721.8	866.5	1155.9	1373.0	1382.5



TEST NUMBER: P937460

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	202.7	226.8	250.8	256.9	400.3	591.5	687.1	835.2	1131.3	1353.5	1368.1
115°	233.2	255.4	277.6	283.2	404.0	565.0	645.5	788.2	1073.5	1287.5	1307.7
117.5°	263.4	283.6	303.8	308.8	411.5	548.4	616.9	745.6	1003.1	1196.3	1218.7
120°	280.9	299.9	318.9	323.7	417.6	542.8	605.4	723.1	958.3	1134.8	1156.7
122.5°	298.2	317.3	336.5	341.3	426.4	539.9	596.6	702.5	914.4	1073.3	1094.8
125°	324.5	341.9	359.4	363.8	438.2	537.4	587.0	677.1	857.0	992.0	1011.9
127.5°	345.8	363.4	381.1	385.5	450.0	536.0	579.1	656.3	810.9	926.8	943.5
130°	357.3	376.3	395.3	400.0	458.7	536.9	576.0	644.9	782.4	885.6	901.0
132.5°	369.1	388.1	407.1	411.9	465.6	537.4	573.3	634.9	758.0	850.4	864.3
135°	386.7	404.0	421.3	425.6	473.3	536.9	568.8	620.4	723.4	800.8	812.7
137.5°	404.6	421.8	438.8	443.2	484.7	540.2	568.0	611.6	698.7	764.2	773.9
140°	419.5	435.3	451.0	455.0	491.8	540.8	565.3	602.9	678.3	734.8	743.9
142.5°	430.9	445.5	460.1	463.8	497.7	542.7	565.3	598.3	664.5	714.2	722.0
145°	448.5	461.2	473.9	477.1	505.3	542.8	561.5	588.6	642.7	683.2	689.2
147.5°	466.1	478.5	490.8	493.9	516.5	546.5	561.5	582.8	625.4	657.3	662.3
150°	477.5	488.7	499.9	502.7	522.4	548.5	561.5	579.5	615.4	642.4	646.3
152.5°	489.3	497.8	506.3	508.4	526.1	549.7	561.5	576.9	607.5	630.5	633.6
155°	506.9	513.2	519.5	521.1	534.6	552.5	561.5	573.7	598.2	616.4	618.4
157.5°	519.9	526.0	532.1	533.6	542.9	555.3	561.5	571.0	590.0	604.2	605.6
160°	528.7	533.5	538.1	539.3	546.8	556.6	561.5	569.7	585.9	598.2	599.0
162.5°	537.4	541.0	544.6	545.5	550.8	558.0	561.5	568.4	582.1	592.4	593.1
165°	546.9	550.2	553.4	554.2	556.7	559.9	561.5	566.5	576.3	583.7	584.5
167.5°	555.8	557.3	558.9	559.2	561.3	563.9	565.3	568.5	574.9	579.8	580.2
170°	561.5	563.0	564.6	564.9	565.0	565.2	565.3	568.5	574.9	579.8	579.8
172.5°	564.6	564.9	565.2	565.3	565.3	565.3	565.3	567.9	572.9	576.8	576.5
175°	568.8	568.8	568.8	568.8	567.6	566.0	565.3	567.0	570.2	572.5	572.5
177.5°	568.8	568.8	568.8	568.8	567.9	566.7	566.0	567.3	569.9	571.8	571.4
180°	568.8	568.8	568.8	568.8	568.8	568.8	568.8	568.8	568.8	568.8	568.8



TEST NUMBER: P937460

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	191.4	191.4
2.5°	204.4	203.2
5°	262.9	264.1
7.5°	354.0	353.4
10°	440.2	445.7
12.5°	503.0	504.2
15°	541.2	543.6
17.5°	555.9	556.6
20°	556.6	555.3
22.5°	549.8	548.5
25°	541.8	541.2
27.5°	534.4	535.0
30°	531.3	533.2
32.5°	531.3	534.4
35°	532.5	535.6
37.5°	531.9	535.6
40°	529.4	533.7
42.5°	522.7	525.7
45°	512.2	515.9
47.5°	498.7	501.2
50°	481.4	483.9
52.5°	459.9	460.5
55°	434.1	436.5
57.5°	406.4	406.9
60°	375.5	377.4
62.5°	342.9	342.9
65°	308.4	309.6
67.5°	272.7	275.8
70°	236.4	237.0
72.5°	200.7	200.7
75°	163.7	164.4
77.5°	128.7	128.7
80°	95.4	96.1
82.5°	65.9	67.1
85°	41.2	41.2
87.5°	19.1	17.3
90°	14.5	14.5
92.5°	58.1	46.5
95°	202.5	167.6
97.5°	485.2	418.7
100°	699.1	619.9
102.5°	909.5	841.7
105°	1177.8	1141.3
107.5°	1353.5	1362.3
110°	1420.5	1458.5



TEST NUMBER: P937460

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1426.5	1484.8
115°	1388.7	1469.6
117.5°	1308.4	1398.2
120°	1243.8	1331.0
122.5°	1180.9	1266.9
125°	1091.0	1170.3
127.5°	1010.4	1077.2
130°	962.8	1024.5
132.5°	919.5	974.9
135°	860.3	908.1
137.5°	813.0	852.0
140°	780.4	816.8
142.5°	753.4	784.8
145°	713.0	736.7
147.5°	681.9	701.6
150°	662.3	678.3
152.5°	645.6	657.7
155°	626.4	634.4
157.5°	611.3	616.9
160°	602.2	605.4
162.5°	596.2	599.3
165°	587.7	590.9
167.5°	581.5	582.8
170°	579.8	579.8
172.5°	575.3	574.1
175°	572.5	572.5
177.5°	570.2	568.8
180°	568.8	568.8



TEST NUMBER: P937460

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-5000K

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	0.62	1.33	1.73	2.45	3.99	13.75	14.47	14.87	15.58	17.13
	3H	1.31	1.95	2.44	3.08	4.64	15.57	16.21	16.69	17.33	18.89
	4H	1.60	2.22	2.74	3.34	4.90	16.19	16.81	17.33	17.93	19.49
	6H	1.85	2.41	2.99	3.53	5.11	16.61	17.17	17.75	18.29	19.87
	8H	1.91	2.45	3.06	3.59	5.16	16.72	17.25	17.86	18.39	19.96
	12H	1.92	2.43	3.07	3.57	5.16	16.77	17.28	17.92	18.41	20.01
4H	2H	7.79	8.40	8.93	9.52	11.09	14.01	14.62	15.15	15.75	17.31
	3H	9.34	9.86	10.49	11.00	12.58	16.03	16.54	17.18	17.69	19.27
	4H	9.43	9.90	10.58	11.04	12.64	16.78	17.25	17.93	18.39	19.98
	6H	9.44	9.84	10.59	11.00	12.59	17.30	17.70	18.45	18.86	20.45
	8H	9.41	9.79	10.56	10.94	12.54	17.45	17.83	18.60	18.98	20.58
	12H	9.36	9.70	10.53	10.86	12.47	17.53	17.87	18.70	19.03	20.64
8H	4H	10.86	11.23	12.01	12.38	13.99	16.83	17.20	17.98	18.36	19.96
	6H	11.09	11.40	12.27	12.60	14.20	17.44	17.75	18.61	18.94	20.54
	8H	11.11	11.38	12.29	12.55	14.17	17.65	17.92	18.83	19.09	20.71
	12H	11.07	11.31	12.25	12.48	14.13	17.78	18.02	18.96	19.19	20.84
12H	4H	10.99	11.33	12.16	12.49	14.10	16.77	17.12	17.95	18.28	19.89
	6H	11.34	11.62	12.53	12.79	14.41	17.42	17.69	18.60	18.86	20.49
	8H	11.41	11.64	12.59	12.81	14.47	17.63	17.87	18.82	19.04	20.70