

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: P936810

Luminaire Tested: SQ4-FB-050U-100D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936810
REPORT IS A COMBINATION OF REPORTS P933471 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

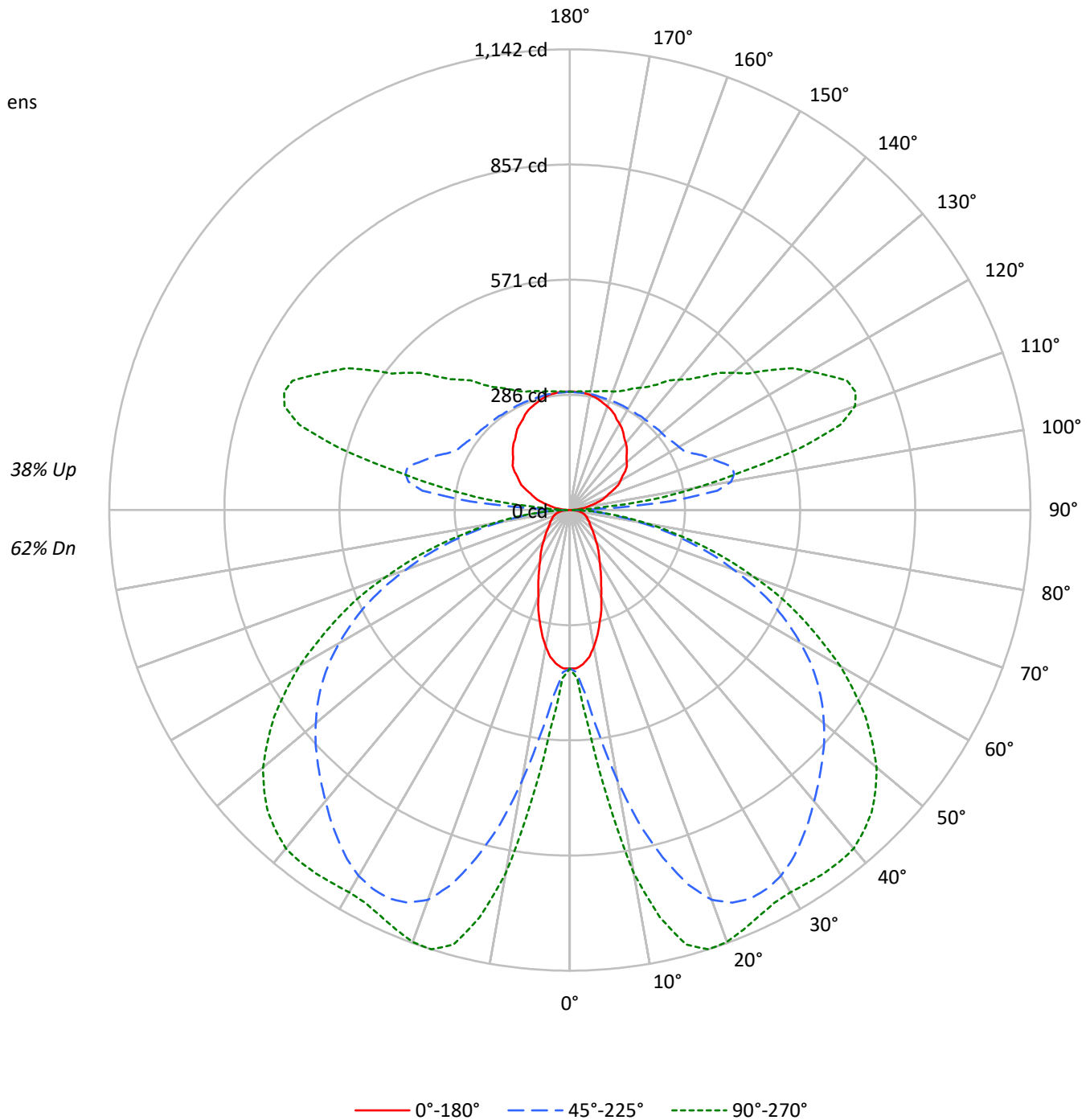
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4943.4 lumens
Efficiency: N/A
Efficacy: 109.4 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: Semi-Direct

Input Watts (W): 45.2
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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3645	3645	3645
5°	3558	4210	4901
10°	3223	6133	8123
15°	2736	8007	9809
20°	2224	9272	9997
25°	1854	9694	9794
30°	1561	9749	9776
35°	1378	9579	10028
40°	1198	9360	10289
45°	1083	9198	10330
50°	991	9051	10159
55°	947	8839	9708
60°	966	8439	8998
65°	1000	7837	8020
70°	1059	6820	6775
75°	1161	5547	5288
80°	1240	3833	3562
85°	1043	2023	1823

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	1.0
10°-20°	225.2	4.6
20°-30°	394.0	8.0
30°-40°	507.1	10.3
40°-50°	566.4	11.5
50°-60°	542.5	11.0
60°-70°	430.0	8.7
70°-80°	252.8	5.1
80°-90°	71.4	1.4
90°-100°	143.1	2.9
100°-110°	376.3	7.6
110°-120°	390.1	7.9
120°-130°	312.9	6.3
130°-140°	245.5	5.0
140°-150°	188.5	3.8
150°-160°	135.7	2.7
160°-170°	83.0	1.7
170°-180°	28.1	0.6
0°-30°	670.0	13.6
0°-40°	1177.1	23.8
0°-60°	2286.1	46.2
0°-90°	3040.2	61.5
90°-120°	909.5	18.4
90°-150°	1656.4	33.5
90°-180°	1903.0	38.5
0°-180°	4943.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	383	410	462	523	542	35
15°	287	529	892	1081	1115	80
25°	183	600	1062	1109	1110	84
35°	124	574	1000	1057	1099	77
45°	85	457	884	1013	1059	65
55°	61	290	750	872	896	55
65°	48	154	557	627	635	48
75°	35	95	306	336	337	37
85°	13	29	76	83	85	13
90°	2	6	15	8	8	2
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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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2.5°	392.8	392.8	395.4	396.6	399.1	400.5	403.0	405.4	413.1	414.3	416.8
5°	382.8	387.8	404.2	410.5	428.2	452.2	462.3	478.8	512.9	522.9	529.2
7.5°	367.6	379.0	419.4	429.5	473.7	536.9	563.4	598.7	653.0	679.6	701.0
10°	343.6	367.6	439.6	463.6	535.6	631.6	680.9	730.1	812.2	848.8	862.8
12.5°	317.1	356.2	461.1	493.9	597.5	737.7	797.1	851.4	944.9	994.1	1001.7
15°	286.7	339.8	481.3	529.2	663.2	826.2	891.9	958.8	1046.0	1081.3	1090.1
17.5°	260.2	327.1	500.2	550.8	713.7	905.7	972.6	1028.3	1099.0	1123.0	1129.3
20°	227.3	307.0	512.9	578.6	766.8	963.8	1028.3	1071.2	1119.2	1134.4	1136.9
22.5°	203.3	285.5	520.4	588.6	802.1	999.2	1053.5	1087.6	1120.4	1125.5	1126.7
25°	183.2	261.5	519.2	600.0	832.5	1020.6	1062.3	1087.6	1106.6	1109.1	1109.1
27.5°	164.2	235.0	514.1	602.6	855.1	1025.7	1058.6	1076.3	1085.1	1090.1	1090.1
30°	147.8	209.7	501.5	597.5	865.3	1020.6	1047.2	1056.0	1064.9	1072.4	1076.3
32.5°	135.2	185.7	482.6	587.4	866.5	1008.0	1026.9	1032.0	1044.6	1062.3	1068.7
35°	123.8	161.7	461.1	573.5	859.0	987.8	1000.5	1005.5	1030.8	1057.3	1066.1
37.5°	112.4	144.0	433.3	549.5	847.6	963.8	972.6	981.5	1020.6	1052.3	1062.3
40°	101.0	128.9	400.5	522.9	829.9	934.8	942.3	956.3	1008.0	1044.6	1054.8
42.5°	92.3	116.2	365.1	495.2	807.2	901.9	913.3	933.5	992.9	1032.0	1043.4
45°	84.6	103.5	327.1	457.3	778.1	867.9	884.2	912.0	975.2	1013.1	1023.2
47.5°	77.1	94.7	288.0	418.2	746.5	833.7	855.1	886.8	951.2	987.8	996.6
50°	70.7	85.9	248.8	376.5	712.4	797.1	822.4	855.1	920.9	954.9	966.3
52.5°	65.7	78.3	212.2	334.8	673.3	759.2	788.2	822.4	884.2	917.1	924.6
55°	60.6	72.0	180.7	290.5	632.9	718.7	750.4	783.2	843.9	871.6	876.7
57.5°	58.1	66.9	154.1	248.8	589.9	673.3	708.7	739.0	795.8	817.3	822.4
60°	54.3	63.2	133.9	213.5	543.2	630.3	660.7	691.0	739.0	756.7	760.4
62.5°	50.6	60.6	118.7	179.3	495.2	579.8	610.1	637.9	678.4	691.0	696.1
65°	48.0	58.1	107.4	154.1	445.9	526.8	557.1	581.1	613.9	626.6	629.0
67.5°	45.5	55.5	98.6	132.6	396.6	473.7	496.5	519.2	544.4	557.1	558.3
70°	41.7	53.1	90.9	117.5	346.1	413.1	432.0	456.0	476.2	482.6	486.3
72.5°	39.2	49.2	85.9	106.1	294.4	355.0	372.6	386.5	404.2	410.5	410.5
75°	35.4	44.2	80.9	94.7	241.3	290.5	305.7	319.6	333.5	336.0	332.2
77.5°	31.5	39.2	69.5	79.5	188.2	229.9	242.5	250.1	261.5	264.0	265.3
80°	26.5	34.1	54.3	61.9	136.4	169.3	178.1	184.4	194.5	194.5	197.0
82.5°	20.2	26.5	39.2	44.2	92.3	116.2	123.8	127.6	133.9	133.9	133.9
85°	12.6	16.4	25.2	29.1	55.5	70.7	75.8	77.1	82.1	83.4	83.4
87.5°	6.3	8.8	16.4	17.7	29.1	36.6	36.6	39.2	39.2	37.9	36.6
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



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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



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	392.8	392.8
2.5°	419.4	416.8
5°	539.4	542.0
7.5°	726.4	725.0
10°	903.2	914.5
12.5°	1032.0	1034.6
15°	1110.4	1115.4
17.5°	1140.7	1141.9
20°	1141.9	1139.4
22.5°	1128.1	1125.5
25°	1111.6	1110.4
27.5°	1096.4	1097.7
30°	1090.1	1094.0
32.5°	1090.1	1096.4
35°	1092.7	1099.0
37.5°	1091.4	1099.0
40°	1086.4	1095.2
42.5°	1072.4	1078.8
45°	1051.0	1058.6
47.5°	1023.2	1028.3
50°	987.8	992.9
52.5°	943.6	944.9
55°	890.5	895.6
57.5°	833.7	835.0
60°	770.5	774.4
62.5°	703.6	703.6
65°	632.9	635.4
67.5°	559.6	566.0
70°	485.1	486.3
72.5°	411.8	411.8
75°	336.0	337.3
77.5°	264.0	264.0
80°	195.8	197.0
82.5°	135.2	137.7
85°	84.6	84.6
87.5°	39.2	35.4
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



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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	6.47	7.49	7.31	8.36	9.46	19.61	20.63	20.45	21.50	22.60
	3H	7.19	8.11	8.04	8.99	10.11	21.44	22.37	22.30	23.25	24.37
	4H	7.49	8.37	8.36	9.25	10.38	22.09	22.96	22.96	23.85	24.98
	6H	7.75	8.56	8.63	9.45	10.60	22.51	23.32	23.40	24.21	25.36
	8H	7.82	8.59	8.72	9.51	10.65	22.63	23.40	23.52	24.31	25.46
	12H	7.85	8.58	8.75	9.49	10.66	22.70	23.43	23.60	24.34	25.51
4H	2H	13.68	14.55	14.55	15.44	16.57	19.90	20.78	20.78	21.66	22.79
	3H	15.26	16.00	16.15	16.92	18.06	21.95	22.68	22.84	23.60	24.75
	4H	15.37	16.04	16.27	16.95	18.12	22.71	23.38	23.61	24.30	25.47
	6H	15.39	15.97	16.30	16.91	18.08	23.25	23.83	24.16	24.77	25.94
	8H	15.37	15.91	16.29	16.84	18.03	23.41	23.95	24.33	24.88	26.07
	12H	15.33	15.82	16.27	16.78	17.97	23.50	23.99	24.44	24.94	26.14
8H	4H	16.81	17.36	17.73	18.29	19.48	22.79	23.33	23.71	24.26	25.45
	6H	17.06	17.52	18.01	18.49	19.68	23.41	23.86	24.36	24.84	26.02
	8H	17.09	17.48	18.04	18.45	19.65	23.63	24.03	24.58	24.99	26.19
	12H	17.06	17.41	18.02	18.37	19.62	23.77	24.12	24.73	25.08	26.33
12H	4H	16.96	17.45	17.90	18.40	19.60	22.75	23.24	23.69	24.19	25.38
	6H	17.32	17.72	18.28	18.69	19.89	23.40	23.80	24.35	24.76	25.97
	8H	17.40	17.75	18.36	18.71	19.96	23.63	23.98	24.59	24.94	26.19