

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: P936822

Luminaire Tested: SQ4-FB-050U-100D-927-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936822
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-927-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

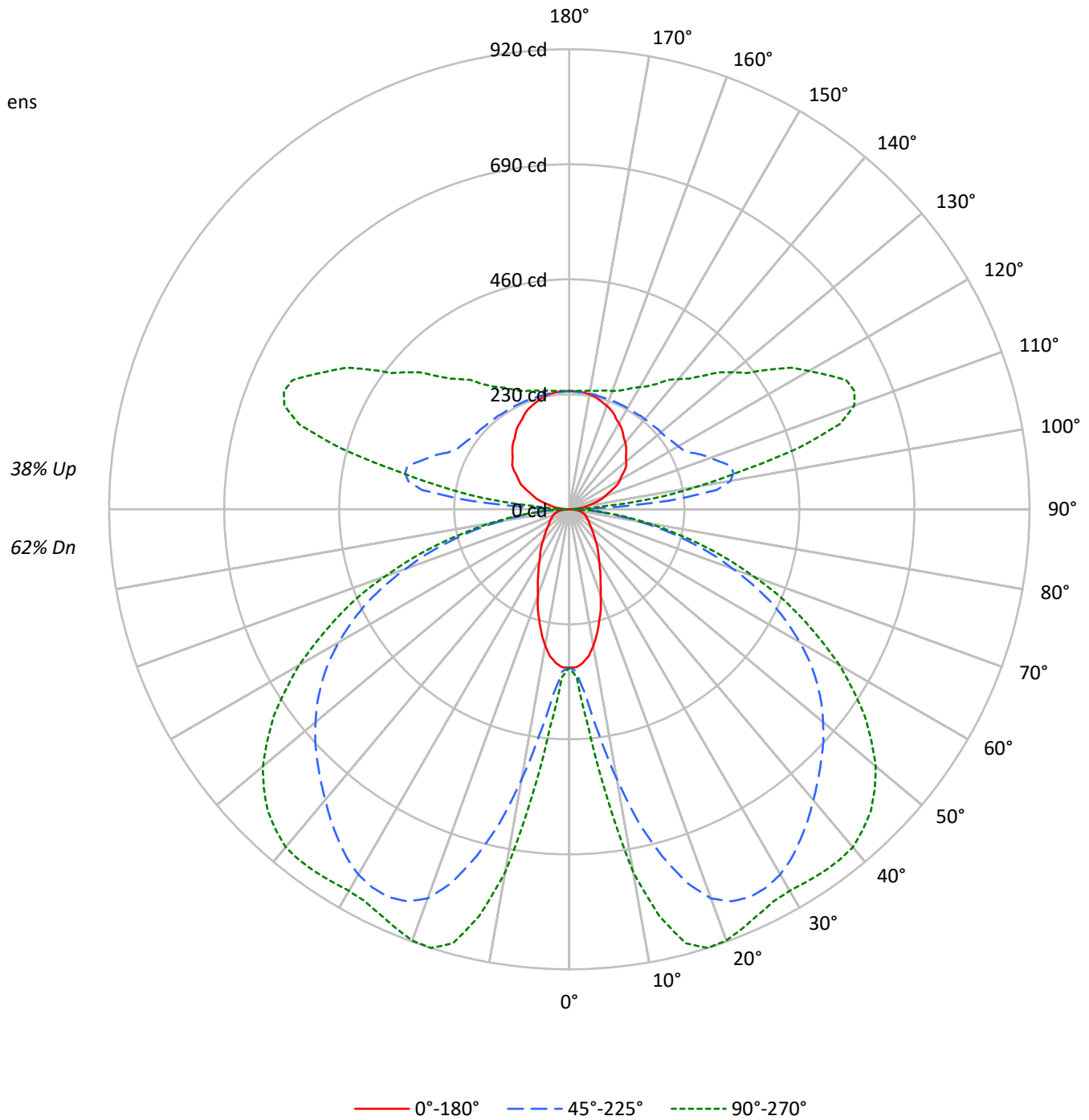
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3981.6 lumens
Efficiency: N/A
Efficacy: 88.1 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				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	67
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°	2936	2936	2936
5°	2865	3391	3947
10°	2596	4939	6543
15°	2203	6449	7901
20°	1792	7468	8052
25°	1493	7808	7889
30°	1257	7852	7873
35°	1110	7715	8077
40°	966	7540	8287
45°	872	7409	8320
50°	799	7290	8182
55°	762	7119	7819
60°	777	6797	7247
65°	806	6312	6459
70°	853	5494	5457
75°	935	4467	4259
80°	997	3088	2869
85°	845	1631	1467

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8320 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.9	1.0
10°-20°	181.4	4.6
20°-30°	317.3	8.0
30°-40°	408.5	10.3
40°-50°	456.2	11.5
50°-60°	437.0	11.0
60°-70°	346.3	8.7
70°-80°	203.6	5.1
80°-90°	57.5	1.4
90°-100°	115.3	2.9
100°-110°	303.0	7.6
110°-120°	314.2	7.9
120°-130°	252.0	6.3
130°-140°	197.8	5.0
140°-150°	151.8	3.8
150°-160°	109.3	2.7
160°-170°	66.9	1.7
170°-180°	22.6	0.6
0°-30°	539.6	13.6
0°-40°	948.1	23.8
0°-60°	1841.3	46.2
0°-90°	2448.7	61.5
90°-120°	732.5	18.4
90°-150°	1334.1	33.5
90°-180°	1533.0	38.5
0°-180°	3981.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	316	316	316	316	316	
5°	308	331	372	421	436	28
15°	231	426	718	871	898	64
25°	148	483	856	893	894	68
35°	100	462	806	852	885	62
45°	68	368	712	816	853	53
55°	49	234	604	702	721	44
65°	39	124	449	505	512	38
75°	28	76	246	271	272	30
85°	10	23	61	67	68	11
90°	2	4	12	6	6	2
95°	15	60	198	102	70	17
105°	55	83	335	509	475	58
115°	97	118	268	535	611	96
125°	135	151	244	412	487	120
135°	161	177	236	333	378	124
145°	186	198	234	284	306	117
155°	211	217	234	256	264	97
165°	228	230	234	243	246	64
175°	236	236	235	238	238	22
180°	236	236	236	236	236	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	316.4	316.4	316.4	316.4	316.4	316.4	316.4	316.4	316.4	316.4	316.4
2.5°	316.4	316.4	318.5	319.5	321.5	322.6	324.6	326.6	332.7	333.7	335.7
5°	308.3	312.4	325.6	330.6	344.9	364.2	372.4	385.6	413.1	421.2	426.3
7.5°	296.1	305.2	337.8	346.0	381.5	432.4	453.8	482.3	526.0	547.4	564.6
10°	276.7	296.1	354.0	373.4	431.4	508.7	548.4	588.0	654.2	683.7	694.9
12.5°	255.4	286.9	371.4	397.8	481.2	594.2	642.0	685.8	761.1	800.7	806.8
15°	230.9	273.7	387.6	426.3	534.1	665.4	718.3	772.2	842.5	870.9	878.0
17.5°	209.6	263.5	402.9	443.6	574.9	729.5	783.4	828.2	885.2	904.5	909.6
20°	183.1	247.2	413.1	466.0	617.6	776.3	828.2	862.8	901.4	913.7	915.7
22.5°	163.8	229.9	419.2	474.1	646.0	804.8	848.5	876.0	902.4	906.5	907.5
25°	147.5	210.6	418.2	483.3	670.5	822.1	855.6	876.0	891.3	893.3	893.3
27.5°	132.3	189.3	414.1	485.3	688.8	826.1	852.6	866.9	874.0	878.0	878.0
30°	119.0	168.9	403.9	481.2	696.9	822.1	843.5	850.5	857.7	863.8	866.9
32.5°	108.9	149.5	388.7	473.1	697.9	811.9	827.1	831.2	841.4	855.6	860.8
35°	99.7	130.2	371.4	461.9	691.8	795.6	805.8	809.9	830.2	851.6	858.7
37.5°	90.6	116.0	349.0	442.6	682.7	776.3	783.4	790.6	822.1	847.5	855.6
40°	81.4	103.8	322.6	421.2	668.4	752.9	759.0	770.2	811.9	841.4	849.5
42.5°	74.3	93.6	294.1	398.9	650.1	726.4	735.6	751.9	799.7	831.2	840.4
45°	68.1	83.4	263.5	368.3	626.7	699.0	712.2	734.6	785.5	816.0	824.1
47.5°	62.1	76.3	232.0	336.8	601.3	671.5	688.8	714.3	766.2	795.6	802.7
50°	57.0	69.2	200.4	303.2	573.8	642.0	662.4	688.8	741.7	769.2	778.3
52.5°	52.9	63.1	170.9	269.7	542.3	611.5	634.9	662.4	712.2	738.7	744.7
55°	48.8	58.0	145.5	234.0	509.7	578.9	604.4	630.8	679.7	702.0	706.1
57.5°	46.8	53.9	124.1	200.4	475.2	542.3	570.8	595.2	640.9	658.3	662.4
60°	43.7	50.9	107.9	171.9	437.5	507.7	532.1	556.6	595.2	609.5	612.5
62.5°	40.7	48.8	95.6	144.5	398.9	467.0	491.4	513.8	546.4	556.6	560.6
65°	38.7	46.8	86.5	124.1	359.1	424.3	448.7	468.0	494.5	504.7	506.7
67.5°	36.7	44.7	79.4	106.8	319.5	381.5	399.9	418.2	438.5	448.7	449.7
70°	33.6	42.7	73.2	94.6	278.7	332.7	348.0	367.3	383.5	388.7	391.7
72.5°	31.6	39.7	69.2	85.5	237.1	285.9	300.1	311.3	325.6	330.6	330.6
75°	28.5	35.6	65.1	76.3	194.3	234.0	246.2	257.4	268.6	270.7	267.6
77.5°	25.4	31.6	56.0	64.1	151.6	185.2	195.3	201.4	210.6	212.7	213.7
80°	21.3	27.5	43.7	49.8	109.9	136.4	143.5	148.5	156.7	156.7	158.7
82.5°	16.2	21.3	31.6	35.6	74.3	93.6	99.7	102.8	107.9	107.9	107.9
85°	10.2	13.2	20.3	23.4	44.7	57.0	61.1	62.1	66.1	67.1	67.1
87.5°	5.1	7.1	13.2	14.2	23.4	29.5	29.5	31.6	31.6	30.5	29.5
90°	1.6	2.8	4.2	4.5	7.0	10.4	12.1	10.7	8.0	6.0	6.0
92.5°	6.3	17.1	28.0	30.6	43.0	59.6	67.9	59.5	42.7	30.2	29.0
95°	15.2	35.0	54.7	59.7	106.0	167.6	198.5	177.1	134.4	102.3	98.7
97.5°	26.3	43.7	61.1	65.5	142.7	245.6	297.1	283.6	256.6	236.3	229.4
100°	34.9	50.7	66.5	70.5	156.1	270.3	327.4	328.4	330.4	331.9	323.6
102.5°	42.2	57.0	71.7	75.4	162.2	278.0	336.0	353.2	387.6	413.4	406.3
105°	54.6	67.1	79.5	82.7	166.8	279.0	335.0	373.6	450.8	508.7	504.9
107.5°	67.3	78.9	90.6	93.5	167.6	266.6	316.0	369.8	477.5	558.2	559.1
110°	75.8	86.3	96.9	99.5	166.4	255.6	300.1	360.3	480.6	570.9	574.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	84.2	94.2	104.3	106.8	166.4	245.9	285.7	347.3	470.4	562.8	568.9
115°	96.9	106.2	115.4	117.7	167.9	234.8	268.3	327.6	446.3	535.3	543.7
117.5°	109.5	117.9	126.3	128.4	171.1	228.0	256.5	310.0	417.0	497.3	506.7
120°	116.8	124.7	132.6	134.6	173.6	225.7	251.7	300.6	398.5	471.9	480.9
122.5°	124.0	132.0	139.9	141.9	177.3	224.5	248.0	292.1	380.2	446.3	455.2
125°	134.9	142.1	149.4	151.2	182.2	223.5	244.1	281.5	356.4	412.5	420.7
127.5°	143.8	151.2	158.5	160.3	187.1	222.9	240.8	272.9	337.1	385.3	392.2
130°	148.5	156.5	164.3	166.3	190.7	223.2	239.5	268.1	325.3	368.2	374.6
132.5°	153.5	161.4	169.2	171.2	193.7	223.5	238.4	264.0	315.2	353.6	359.4
135°	160.8	167.9	175.2	176.9	196.8	223.2	236.5	257.9	300.8	332.9	337.9
137.5°	168.2	175.3	182.5	184.3	201.6	224.6	236.2	254.3	290.5	317.7	321.8
140°	174.4	181.0	187.6	189.2	204.4	224.8	235.0	250.7	282.1	305.5	309.3
142.5°	179.2	185.3	191.3	192.8	206.9	225.6	235.0	248.8	276.3	296.9	300.1
145°	186.5	191.7	197.0	198.4	210.1	225.7	233.5	244.7	267.2	284.1	286.5
147.5°	193.8	199.0	204.0	205.4	214.8	227.2	233.5	242.3	260.0	273.3	275.4
150°	198.5	203.1	207.8	209.0	217.1	228.0	233.5	240.9	255.9	267.1	268.8
152.5°	203.4	207.0	210.5	211.4	218.8	228.5	233.5	239.9	252.6	262.2	263.4
155°	210.7	213.4	216.0	216.6	222.2	229.7	233.5	238.5	248.7	256.3	257.2
157.5°	216.1	218.7	221.2	221.8	225.7	230.8	233.5	237.4	245.3	251.3	251.9
160°	219.8	221.8	223.8	224.2	227.3	231.4	233.5	236.9	243.6	248.7	249.0
162.5°	223.5	224.9	226.4	226.8	229.0	232.0	233.5	236.3	242.0	246.3	246.6
165°	227.5	228.8	230.2	230.5	231.5	232.8	233.5	235.5	239.5	242.6	242.9
167.5°	231.1	231.7	232.3	232.5	233.3	234.5	235.0	236.4	239.1	241.1	241.2
170°	233.5	234.1	234.7	234.8	234.9	235.0	235.0	236.4	239.1	241.1	241.1
172.5°	234.7	234.8	235.0	235.0	235.0	235.0	235.0	236.1	238.2	239.8	239.6
175°	236.5	236.5	236.5	236.5	236.0	235.3	235.0	235.7	237.1	238.1	238.1
177.5°	236.5	236.5	236.5	236.5	236.1	235.6	235.4	235.9	237.0	237.8	237.6
180°	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	316.4	316.4
2.5°	337.8	335.7
5°	434.4	436.5
7.5°	585.0	584.0
10°	727.5	736.6
12.5°	831.2	833.3
15°	894.4	898.4
17.5°	918.8	919.8
20°	919.8	917.7
22.5°	908.6	906.5
25°	895.4	894.4
27.5°	883.1	884.1
30°	878.0	881.1
32.5°	878.0	883.1
35°	880.1	885.2
37.5°	879.0	885.2
40°	875.0	882.1
42.5°	863.8	868.9
45°	846.5	852.6
47.5°	824.1	828.2
50°	795.6	799.7
52.5°	760.0	761.1
55°	717.3	721.3
57.5°	671.5	672.5
60°	620.6	623.7
62.5°	566.7	566.7
65°	509.7	511.7
67.5°	450.8	455.8
70°	390.7	391.7
72.5°	331.7	331.7
75°	270.7	271.7
77.5°	212.7	212.7
80°	157.7	158.7
82.5°	108.9	110.9
85°	68.1	68.1
87.5°	31.6	28.5
90°	6.0	6.0
92.5°	24.2	19.3
95°	84.2	69.7
97.5°	201.7	174.1
100°	290.7	257.7
102.5°	378.1	350.0
105°	489.7	474.6
107.5°	562.7	566.4
110°	590.6	606.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	593.1	617.4
115°	577.3	611.0
117.5°	544.0	581.4
120°	517.1	553.4
122.5°	491.0	526.8
125°	453.6	486.6
127.5°	420.0	447.8
130°	400.3	426.0
132.5°	382.3	405.3
135°	357.7	377.5
137.5°	338.0	354.2
140°	324.5	339.6
142.5°	313.2	326.3
145°	296.4	306.3
147.5°	283.5	291.7
150°	275.4	282.1
152.5°	268.4	273.4
155°	260.5	263.8
157.5°	254.2	256.5
160°	250.4	251.7
162.5°	247.9	249.2
165°	244.3	245.7
167.5°	241.8	242.3
170°	241.1	241.1
172.5°	239.2	238.7
175°	238.1	238.1
177.5°	237.1	236.5
180°	236.5	236.5



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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	5.72	6.74	6.56	7.61	8.71	18.86	19.88	19.70	20.75	21.85
	3H	6.43	7.36	7.29	8.24	9.36	20.69	21.62	21.55	22.50	23.62
	4H	6.74	7.61	7.61	8.50	9.63	21.33	22.21	22.21	23.10	24.23
	6H	7.00	7.81	7.88	8.70	9.84	21.76	22.57	22.65	23.46	24.61
	8H	7.07	7.84	7.96	8.75	9.90	21.88	22.65	22.77	23.56	24.71
	12H	7.09	7.83	7.99	8.74	9.91	21.95	22.68	22.85	23.59	24.76
4H	2H	12.93	13.80	13.80	14.69	15.82	19.15	20.03	20.03	20.91	22.04
	3H	14.51	15.24	15.40	16.16	17.31	21.20	21.93	22.09	22.85	23.99
	4H	14.61	15.28	15.51	16.20	17.37	21.96	22.63	22.86	23.55	24.72
	6H	14.64	15.22	15.55	16.15	17.33	22.50	23.08	23.41	24.02	25.19
	8H	14.62	15.16	15.53	16.09	17.28	22.66	23.20	23.57	24.13	25.32
	12H	14.58	15.07	15.52	16.02	17.22	22.75	23.24	23.69	24.19	25.39
8H	4H	16.06	16.60	16.98	17.54	18.73	22.04	22.58	22.95	23.51	24.70
	6H	16.31	16.76	17.26	17.74	18.92	22.66	23.11	23.61	24.09	25.27
	8H	16.33	16.73	17.29	17.70	18.90	22.88	23.27	23.83	24.24	25.44
	12H	16.31	16.66	17.27	17.62	18.87	23.02	23.37	23.98	24.33	25.58
12H	4H	16.21	16.70	17.15	17.65	18.85	22.00	22.49	22.94	23.44	24.63
	6H	16.57	16.97	17.52	17.93	19.14	22.65	23.05	23.60	24.01	25.21
	8H	16.65	17.00	17.61	17.96	19.21	22.88	23.23	23.84	24.19	25.44