

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: P936660

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

Issue Date: 12/17/2024

**Test Information**

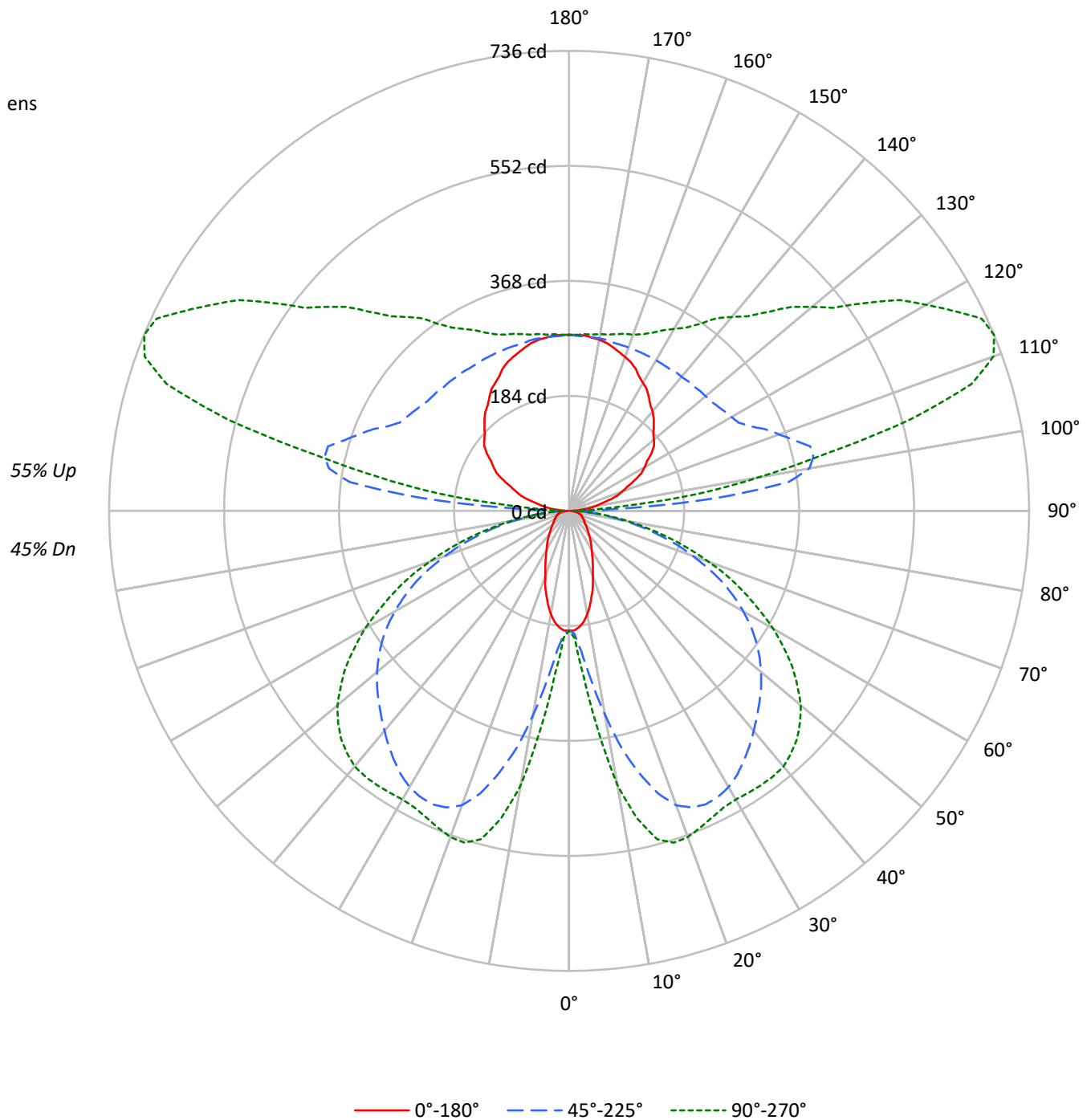
Test Method: LM-79-2019  
Report Number: P936660  
REPORT IS A COMBINATION OF REPORTS P933469 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-4-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3309.2 lumens  
Efficiency: N/A  
Efficacy: 116.5 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: General Diffuse  
  
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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





TEST NUMBER: P936660

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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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.8	0.7
10°-20°	109.8	3.3
20°-30°	192.0	5.8
30°-40°	247.2	7.5
40°-50°	276.1	8.3
50°-60°	264.4	8.0
60°-70°	209.5	6.3
70°-80°	123.2	3.7
80°-90°	35.3	1.1
90°-100°	137.4	4.2
100°-110°	361.2	10.9
110°-120°	374.5	11.3
120°-130°	300.4	9.1
130°-140°	235.7	7.1
140°-150°	180.9	5.5
150°-160°	130.3	3.9
160°-170°	79.7	2.4
170°-180°	26.9	0.8
0°-30°	326.5	9.9
0°-40°	573.7	17.3
0°-60°	1114.2	33.7
0°-90°	1482.3	44.8
90°-120°	873.0	26.4
90°-150°	1590.0	48.0
90°-180°	1827.0	55.2
0°-180°	3309.2	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°	2	5	14	7	7	2
95°	18	71	237	122	83	20
105°	65	99	399	606	566	69
115°	116	140	320	638	728	114
125°	161	180	291	492	580	143
135°	192	211	282	397	450	148
145°	222	236	278	338	365	139
155°	251	258	278	306	314	115
165°	271	275	278	289	293	76
175°	282	282	280	284	284	27
180°	282	282	282	282	282	



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**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°	1.9	3.4	5.0	5.3	8.4	12.4	14.4	12.8	9.5	7.2	7.2
92.5°	7.5	20.4	33.3	36.5	51.3	71.0	80.9	70.9	50.9	36.0	34.5
95°	18.2	41.7	65.2	71.1	126.3	199.8	236.6	211.1	160.1	122.0	117.6
97.5°	31.4	52.1	72.9	78.1	170.0	292.7	354.0	338.0	305.8	281.6	273.4
100°	41.6	60.4	79.3	84.0	186.0	322.1	390.2	391.4	393.8	395.5	385.7
102.5°	50.3	67.9	85.4	89.8	193.4	331.4	400.4	420.9	462.0	492.7	484.3
105°	65.1	79.9	94.8	98.6	198.8	332.5	399.3	445.3	537.2	606.2	601.7
107.5°	80.2	94.1	107.9	111.4	199.8	317.7	376.6	440.8	569.1	665.2	666.3
110°	90.4	102.9	115.4	118.6	198.3	304.6	357.7	429.4	572.8	680.4	685.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	100.4	112.3	124.3	127.3	198.3	293.1	340.5	413.9	560.6	670.7	678.0
115°	115.5	126.6	137.6	140.3	200.1	279.9	319.8	390.5	531.9	638.0	648.0
117.5°	130.5	140.5	150.5	153.0	203.9	271.7	305.7	369.5	497.0	592.7	603.8
120°	139.2	148.7	158.0	160.4	206.9	269.0	300.0	358.3	474.9	562.4	573.2
122.5°	147.7	157.3	166.7	169.1	211.3	267.5	295.6	348.1	453.2	531.9	542.5
125°	160.8	169.4	178.0	180.2	217.1	266.3	290.9	335.5	424.7	491.6	501.4
127.5°	171.3	180.1	188.9	191.1	223.0	265.7	287.0	325.2	401.8	459.2	467.5
130°	177.0	186.5	195.8	198.2	227.3	266.0	285.4	319.5	387.7	438.8	446.5
132.5°	182.9	192.3	201.7	204.1	230.8	266.3	284.1	314.6	375.6	421.4	428.3
135°	191.6	200.1	208.8	210.9	234.6	266.0	281.8	307.3	358.5	396.8	402.7
137.5°	200.5	209.0	217.5	219.6	240.3	267.7	281.5	303.0	346.2	378.6	383.5
140°	207.9	215.7	223.6	225.5	243.6	268.0	280.1	298.8	336.2	364.1	368.6
142.5°	213.5	220.8	228.0	229.8	246.6	268.9	280.1	296.5	329.3	353.9	357.7
145°	222.3	228.5	234.8	236.4	250.3	269.0	278.2	291.6	318.4	338.5	341.5
147.5°	231.0	237.1	243.2	244.7	255.9	270.8	278.2	288.8	309.9	325.7	328.2
150°	236.6	242.1	247.7	249.1	258.8	271.7	278.2	287.1	305.0	318.3	320.4
152.5°	242.5	246.7	250.9	251.9	260.7	272.4	278.2	285.9	301.1	312.5	313.9
155°	251.2	254.3	257.4	258.1	264.8	273.7	278.2	284.3	296.4	305.5	306.5
157.5°	257.6	260.6	263.7	264.4	269.0	275.1	278.2	282.9	292.4	299.4	300.2
160°	262.0	264.3	266.7	267.2	270.9	275.8	278.2	282.3	290.4	296.4	296.8
162.5°	266.3	268.1	269.8	270.3	272.9	276.5	278.2	281.6	288.4	293.6	293.9
165°	271.1	272.6	274.3	274.7	275.9	277.4	278.2	280.6	285.5	289.2	289.5
167.5°	275.4	276.1	276.9	277.1	278.1	279.4	280.1	281.7	284.9	287.3	287.5
170°	278.2	279.0	279.7	279.9	280.0	280.1	280.1	281.7	284.9	287.3	287.3
172.5°	279.7	279.9	280.1	280.1	280.1	280.1	280.1	281.4	283.8	285.8	285.6
175°	281.8	281.8	281.8	281.8	281.3	280.4	280.1	280.9	282.6	283.8	283.8
177.5°	281.8	281.8	281.8	281.8	281.4	280.8	280.5	281.2	282.5	283.4	283.2
180°	281.8	281.8	281.8	281.8	281.8	281.8	281.8	281.8	281.8	281.8	281.8



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**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°	7.2	7.2
92.5°	28.8	23.0
95°	100.3	83.1
97.5°	240.4	207.5
100°	346.4	307.2
102.5°	450.7	417.1
105°	583.7	565.6
107.5°	670.7	675.1
110°	703.9	722.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	706.9	735.8
115°	688.1	728.2
117.5°	648.4	692.9
120°	616.3	659.5
122.5°	585.2	627.8
125°	540.6	579.9
127.5°	500.6	533.7
130°	477.1	507.7
132.5°	455.6	483.1
135°	426.4	449.9
137.5°	402.8	422.1
140°	386.7	404.8
142.5°	373.3	388.9
145°	353.3	365.1
147.5°	337.9	347.6
150°	328.3	336.2
152.5°	319.9	325.9
155°	310.5	314.4
157.5°	302.9	305.7
160°	298.4	300.0
162.5°	295.5	297.0
165°	291.2	292.8
167.5°	288.2	288.8
170°	287.3	287.3
172.5°	285.0	284.5
175°	283.8	283.8
177.5°	282.6	281.8
180°	281.8	281.8



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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	2.49	3.34	3.49	4.35	5.69	15.63	16.48	16.62	17.49	18.83
	3H	3.20	3.96	4.20	4.98	6.34	17.45	18.22	18.46	19.24	20.60
	4H	3.50	4.22	4.51	5.24	6.61	18.09	18.81	19.11	19.83	21.20
	6H	3.75	4.42	4.78	5.44	6.82	18.51	19.17	19.53	20.20	21.58
	8H	3.82	4.45	4.85	5.49	6.87	18.62	19.26	19.65	20.30	21.68
	12H	3.83	4.44	4.87	5.47	6.88	18.68	19.29	19.72	20.32	21.73
4H	2H	9.68	10.41	10.70	11.43	12.80	15.91	16.63	16.93	17.65	19.02
	3H	11.25	11.86	12.28	12.91	14.29	17.94	18.54	18.97	19.59	20.97
	4H	11.35	11.90	12.38	12.94	14.35	18.69	19.25	19.73	20.29	21.69
	6H	11.36	11.84	12.41	12.90	14.30	19.22	19.70	20.27	20.76	22.16
	8H	11.33	11.78	12.38	12.84	14.25	19.37	19.82	20.42	20.88	22.29
	12H	11.29	11.69	12.36	12.77	14.19	19.46	19.86	20.53	20.93	22.36
8H	4H	12.78	13.23	13.83	14.28	15.70	18.75	19.20	19.80	20.26	21.67
	6H	13.02	13.39	14.10	14.49	15.90	19.37	19.74	20.44	20.84	22.25
	8H	13.04	13.37	14.12	14.45	15.88	19.58	19.91	20.66	20.99	22.42
	12H	13.01	13.29	14.09	14.37	15.85	19.72	20.00	20.80	21.08	22.55
12H	4H	12.92	13.32	13.99	14.40	15.82	18.70	19.11	19.77	20.18	21.60
	6H	13.28	13.60	14.36	14.69	16.12	19.35	19.68	20.43	20.76	22.19
	8H	13.34	13.63	14.43	14.71	16.18	19.57	19.86	20.66	20.94	22.41