

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: P936657

Luminaire Tested: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

**Test Information**

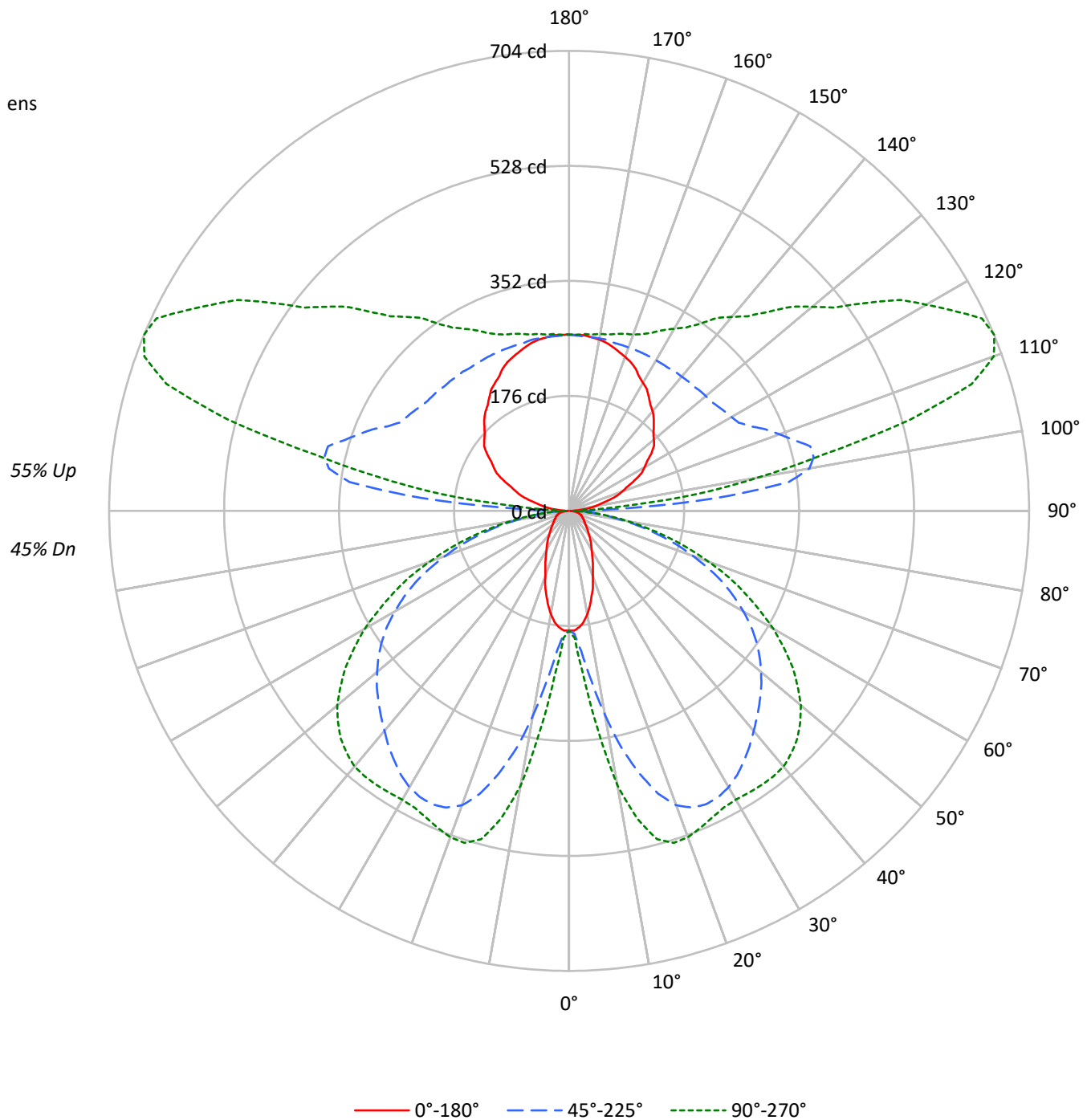
Test Method: LM-79-2019  
Report Number: P936657  
REPORT IS A COMBINATION OF REPORTS P933469 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-4-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3167.1 lumens  
Efficiency: N/A  
Efficacy: 111.5 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





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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	21	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°	1700	1700	1700
5°	1660	1963	2286
10°	1504	2861	3789
15°	1277	3735	4576
20°	1038	4324	4663
25°	865	4522	4568
30°	728	4547	4560
35°	642	4468	4677
40°	560	4367	4799
45°	504	4291	4818
50°	463	4222	4738
55°	442	4123	4528
60°	450	3937	4197
65°	467	3655	3740
70°	493	3181	3161
75°	541	2586	2466
80°	580	1788	1663
85°	489	945	849

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4818 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.7	0.7
10°-20°	105.1	3.3
20°-30°	183.8	5.8
30°-40°	236.5	7.5
40°-50°	264.2	8.3
50°-60°	253.1	8.0
60°-70°	200.5	6.3
70°-80°	117.9	3.7
80°-90°	33.8	1.1
90°-100°	131.5	4.2
100°-110°	345.7	10.9
110°-120°	358.4	11.3
120°-130°	287.5	9.1
130°-140°	225.6	7.1
140°-150°	173.1	5.5
150°-160°	124.7	3.9
160°-170°	76.3	2.4
170°-180°	25.8	0.8
0°-30°	312.5	9.9
0°-40°	549.1	17.3
0°-60°	1066.3	33.7
0°-90°	1418.6	44.8
90°-120°	835.6	26.4
90°-150°	1521.8	48.0
90°-180°	1749.0	55.2
0°-180°	3167.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	183	183	183	183	183	
5°	179	192	216	244	253	16
15°	134	247	416	504	520	37
25°	86	280	496	517	518	39
35°	58	268	467	493	513	36
45°	39	213	412	472	494	31
55°	28	136	350	407	418	26
65°	22	72	260	292	296	22
75°	16	44	142	157	157	17
85°	6	14	35	39	39	6
90°	2	5	14	7	7	2
95°	17	68	226	117	80	19
105°	62	94	382	580	541	66
115°	111	134	306	611	697	109
125°	154	172	278	470	555	137
135°	183	202	270	380	431	142
145°	213	226	266	324	349	133
155°	240	247	266	292	301	110
165°	260	263	266	277	280	73
175°	270	270	268	272	272	26
180°	270	270	270	270	270	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2
2.5°	183.2	183.2	184.4	185.0	186.2	186.8	188.0	189.1	192.7	193.2	194.5
5°	178.6	180.9	188.6	191.5	199.7	211.0	215.6	223.4	239.2	243.9	246.9
7.5°	171.4	176.8	195.6	200.3	221.0	250.4	262.8	279.3	304.6	317.0	327.0
10°	160.3	171.4	205.1	216.2	249.8	294.6	317.6	340.6	378.9	395.9	402.4
12.5°	147.9	166.2	215.1	230.4	278.7	344.1	371.8	397.2	440.7	463.7	467.3
15°	133.8	158.5	224.5	246.9	309.3	385.3	416.0	447.2	487.9	504.3	508.4
17.5°	121.4	152.6	233.4	256.9	332.9	422.5	453.7	479.6	512.6	523.8	526.7
20°	106.1	143.2	239.2	269.9	357.6	449.6	479.6	499.7	522.1	529.1	530.3
22.5°	94.9	133.2	242.8	274.6	374.2	466.0	491.4	507.3	522.6	525.0	525.6
25°	85.5	122.0	242.1	279.9	388.3	476.0	495.5	507.3	516.2	517.3	517.3
27.5°	76.6	109.6	239.8	281.1	398.9	478.4	493.8	502.0	506.2	508.4	508.4
30°	68.9	97.8	233.9	278.7	403.6	476.0	488.4	492.6	496.7	500.3	502.0
32.5°	63.1	86.6	225.1	273.9	404.2	470.2	479.0	481.4	487.3	495.5	498.4
35°	57.7	75.4	215.1	267.5	400.7	460.8	466.6	469.0	480.8	493.2	497.3
37.5°	52.4	67.2	202.1	256.3	395.3	449.6	453.7	457.9	476.0	490.8	495.5
40°	47.2	60.1	186.8	243.9	387.2	436.0	439.6	446.0	470.2	487.3	492.0
42.5°	43.0	54.2	170.3	231.0	376.5	420.7	426.0	435.5	463.1	481.4	486.7
45°	39.4	48.3	152.6	213.3	362.9	404.8	412.5	425.4	454.9	472.5	477.3
47.5°	35.9	44.2	134.4	195.1	348.2	388.9	398.9	413.6	443.7	460.8	464.9
50°	33.0	40.1	116.1	175.6	332.3	371.8	383.6	398.9	429.6	445.5	450.7
52.5°	30.7	36.5	99.0	156.2	314.1	354.1	367.7	383.6	412.5	427.7	431.3
55°	28.3	33.6	84.2	135.5	295.2	335.2	350.0	365.3	393.6	406.6	408.9
57.5°	27.1	31.3	71.8	116.1	275.2	314.1	330.5	344.6	371.2	381.2	383.6
60°	25.3	29.4	62.4	99.6	253.4	294.1	308.2	322.3	344.6	352.9	354.7
62.5°	23.5	28.3	55.4	83.7	231.0	270.4	284.6	297.6	316.4	322.3	324.6
65°	22.4	27.1	50.1	71.8	208.0	245.7	259.8	271.0	286.3	292.2	293.4
67.5°	21.3	25.9	45.9	61.8	185.0	221.0	231.5	242.1	253.9	259.8	260.4
70°	19.4	24.8	42.4	54.8	161.4	192.7	201.5	212.7	222.1	225.1	226.9
72.5°	18.3	23.0	40.1	49.5	137.3	165.6	173.8	180.3	188.6	191.5	191.5
75°	16.5	20.6	37.7	44.2	112.5	135.5	142.5	149.0	155.5	156.7	154.9
77.5°	14.8	18.3	32.4	37.2	87.8	107.2	113.1	116.6	122.0	123.1	123.8
80°	12.4	15.9	25.3	28.9	63.7	79.0	83.1	86.0	90.7	90.7	92.0
82.5°	9.4	12.4	18.3	20.6	43.0	54.2	57.7	59.5	62.4	62.4	62.4
85°	5.9	7.6	11.8	13.5	25.9	33.0	35.4	35.9	38.3	38.9	38.9
87.5°	3.0	4.1	7.6	8.3	13.5	17.1	17.1	18.3	18.3	17.7	17.1
90°	1.8	3.2	4.7	5.1	8.0	11.9	13.8	12.2	9.1	6.9	6.9
92.5°	7.2	19.5	31.9	35.0	49.1	68.0	77.5	67.9	48.7	34.4	33.0
95°	17.4	39.9	62.4	68.1	120.9	191.2	226.4	202.0	153.3	116.7	112.6
97.5°	30.0	49.9	69.7	74.7	162.7	280.2	338.8	323.5	292.6	269.6	261.6
100°	39.8	57.8	75.9	80.4	178.0	308.3	373.5	374.6	376.9	378.5	369.1
102.5°	48.1	65.0	81.8	86.0	185.1	317.2	383.2	402.9	442.1	471.6	463.5
105°	62.3	76.5	90.7	94.3	190.2	318.2	382.1	426.2	514.2	580.2	575.9
107.5°	76.8	90.0	103.3	106.6	191.2	304.1	360.5	421.8	544.6	636.7	637.7
110°	86.5	98.5	110.5	113.5	189.8	291.5	342.4	411.0	548.2	651.2	655.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	96.1	107.5	118.9	121.8	189.8	280.5	325.8	396.1	536.6	642.0	648.9
115°	110.6	121.1	131.7	134.3	191.6	267.9	306.1	373.7	509.1	610.6	620.2
117.5°	124.9	134.5	144.0	146.4	195.2	260.1	292.6	353.6	475.7	567.3	577.9
120°	133.2	142.3	151.2	153.5	198.1	257.4	287.1	342.9	454.5	538.2	548.6
122.5°	141.4	150.5	159.6	161.9	202.2	256.0	282.9	333.1	433.7	509.1	519.3
125°	153.9	162.1	170.4	172.5	207.8	254.9	278.4	321.1	406.5	470.5	479.9
127.5°	164.0	172.4	180.8	182.9	213.4	254.3	274.6	311.3	384.5	439.5	447.4
130°	169.4	178.5	187.4	189.7	217.6	254.6	273.2	305.8	371.1	420.0	427.3
132.5°	175.0	184.1	193.1	195.3	220.9	254.9	271.9	301.1	359.5	403.3	409.9
135°	183.4	191.6	199.8	201.8	224.5	254.6	269.7	294.1	343.1	379.8	385.4
137.5°	191.9	200.0	208.2	210.2	229.9	256.2	269.4	290.0	331.4	362.4	367.0
140°	198.9	206.4	214.0	215.8	233.2	256.5	268.1	286.0	321.7	348.5	352.8
142.5°	204.4	211.3	218.2	219.9	236.0	257.3	268.1	283.8	315.1	338.7	342.4
145°	212.7	218.7	224.8	226.3	239.6	257.4	266.3	279.1	304.8	324.0	326.8
147.5°	221.1	227.0	232.7	234.2	245.0	259.2	266.3	276.4	296.6	311.7	314.1
150°	226.4	231.7	237.1	238.4	247.7	260.1	266.3	274.8	291.9	304.7	306.6
152.5°	232.0	236.1	240.1	241.1	249.5	260.7	266.3	273.6	288.2	299.1	300.5
155°	240.4	243.4	246.4	247.1	253.5	262.0	266.3	272.1	283.7	292.4	293.4
157.5°	246.5	249.4	252.3	253.0	257.4	263.3	266.3	270.8	279.8	286.6	287.3
160°	250.8	253.0	255.2	255.8	259.3	263.9	266.3	270.2	277.9	283.7	284.0
162.5°	254.9	256.6	258.2	258.7	261.2	264.6	266.3	269.6	276.1	281.0	281.3
165°	259.5	260.9	262.5	262.9	264.0	265.5	266.3	268.6	273.2	276.8	277.1
167.5°	263.6	264.3	265.0	265.2	266.1	267.4	268.1	269.6	272.7	275.0	275.2
170°	266.3	267.0	267.7	267.9	268.0	268.1	268.1	269.6	272.7	275.0	275.0
172.5°	267.7	267.9	268.1	268.1	268.1	268.1	268.1	269.3	271.7	273.5	273.3
175°	269.7	269.7	269.7	269.7	269.2	268.4	268.1	268.8	270.4	271.6	271.6
177.5°	269.7	269.7	269.7	269.7	269.3	268.8	268.5	269.1	270.3	271.2	271.0
180°	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	183.2	183.2
2.5°	195.6	194.5
5°	251.6	252.8
7.5°	338.8	338.2
10°	421.3	426.6
12.5°	481.4	482.5
15°	517.9	520.3
17.5°	532.1	532.7
20°	532.7	531.5
22.5°	526.2	525.0
25°	518.5	517.9
27.5°	511.4	512.0
30°	508.4	510.3
32.5°	508.4	511.4
35°	509.7	512.6
37.5°	509.1	512.6
40°	506.7	510.8
42.5°	500.3	503.2
45°	490.2	493.8
47.5°	477.3	479.6
50°	460.8	463.1
52.5°	440.1	440.7
55°	415.4	417.7
57.5°	388.9	389.4
60°	359.4	361.2
62.5°	328.2	328.2
65°	295.2	296.3
67.5°	261.0	263.9
70°	226.3	226.9
72.5°	192.1	192.1
75°	156.7	157.3
77.5°	123.1	123.1
80°	91.3	92.0
82.5°	63.1	64.2
85°	39.4	39.4
87.5°	18.3	16.5
90°	6.9	6.9
92.5°	27.6	22.0
95°	96.0	79.5
97.5°	230.1	198.6
100°	331.6	294.0
102.5°	431.3	399.2
105°	558.6	541.3
107.5°	641.9	646.1
110°	673.7	691.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	676.6	704.2
115°	658.6	696.9
117.5°	620.5	663.1
120°	589.9	631.2
122.5°	560.1	600.8
125°	517.4	555.0
127.5°	479.1	510.8
130°	456.6	485.9
132.5°	436.1	462.3
135°	408.1	430.6
137.5°	385.5	404.0
140°	370.1	387.4
142.5°	357.3	372.2
145°	338.1	349.4
147.5°	323.4	332.7
150°	314.2	321.7
152.5°	306.2	311.9
155°	297.1	300.9
157.5°	289.9	292.6
160°	285.6	287.1
162.5°	282.8	284.2
165°	278.7	280.3
167.5°	275.8	276.4
170°	275.0	275.0
172.5°	272.8	272.3
175°	271.6	271.6
177.5°	270.4	269.7
180°	269.7	269.7



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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	2.33	3.18	3.33	4.19	5.53	15.48	16.33	16.47	17.34	18.68
	3H	3.04	3.80	4.04	4.82	6.18	17.30	18.07	18.31	19.08	20.45
	4H	3.34	4.06	4.36	5.09	6.45	17.94	18.66	18.95	19.68	21.05
	6H	3.59	4.26	4.62	5.29	6.67	18.35	19.02	19.38	20.05	21.43
	8H	3.66	4.30	4.69	5.34	6.72	18.47	19.10	19.50	20.15	21.53
	12H	3.68	4.28	4.71	5.32	6.72	18.53	19.13	19.57	20.17	21.57
4H	2H	9.53	10.25	10.55	11.27	12.64	15.75	16.48	16.78	17.50	18.87
	3H	11.10	11.70	12.13	12.75	14.14	17.78	18.39	18.82	19.44	20.82
	4H	11.19	11.75	12.23	12.79	14.19	18.54	19.09	19.58	20.14	21.54
	6H	11.20	11.68	12.25	12.75	14.15	19.07	19.54	20.11	20.61	22.01
	8H	11.18	11.63	12.23	12.69	14.10	19.22	19.67	20.27	20.73	22.14
	12H	11.14	11.54	12.20	12.61	14.03	19.30	19.71	20.37	20.78	22.20
8H	4H	12.63	13.07	13.68	14.13	15.55	18.60	19.05	19.65	20.10	21.52
	6H	12.87	13.24	13.94	14.34	15.75	19.22	19.59	20.29	20.69	22.10
	8H	12.89	13.21	13.97	14.30	15.73	19.43	19.75	20.51	20.84	22.27
	12H	12.85	13.14	13.94	14.22	15.69	19.56	19.85	20.65	20.93	22.40
12H	4H	12.76	13.17	13.83	14.24	15.66	18.55	18.96	19.62	20.03	21.45
	6H	13.12	13.45	14.20	14.53	15.96	19.20	19.53	20.28	20.61	22.04
	8H	13.19	13.48	14.28	14.56	16.03	19.42	19.71	20.51	20.79	22.26