

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: P937450

Luminaire Tested: SQ4-FB-100U-050D-930-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937450
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-930-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

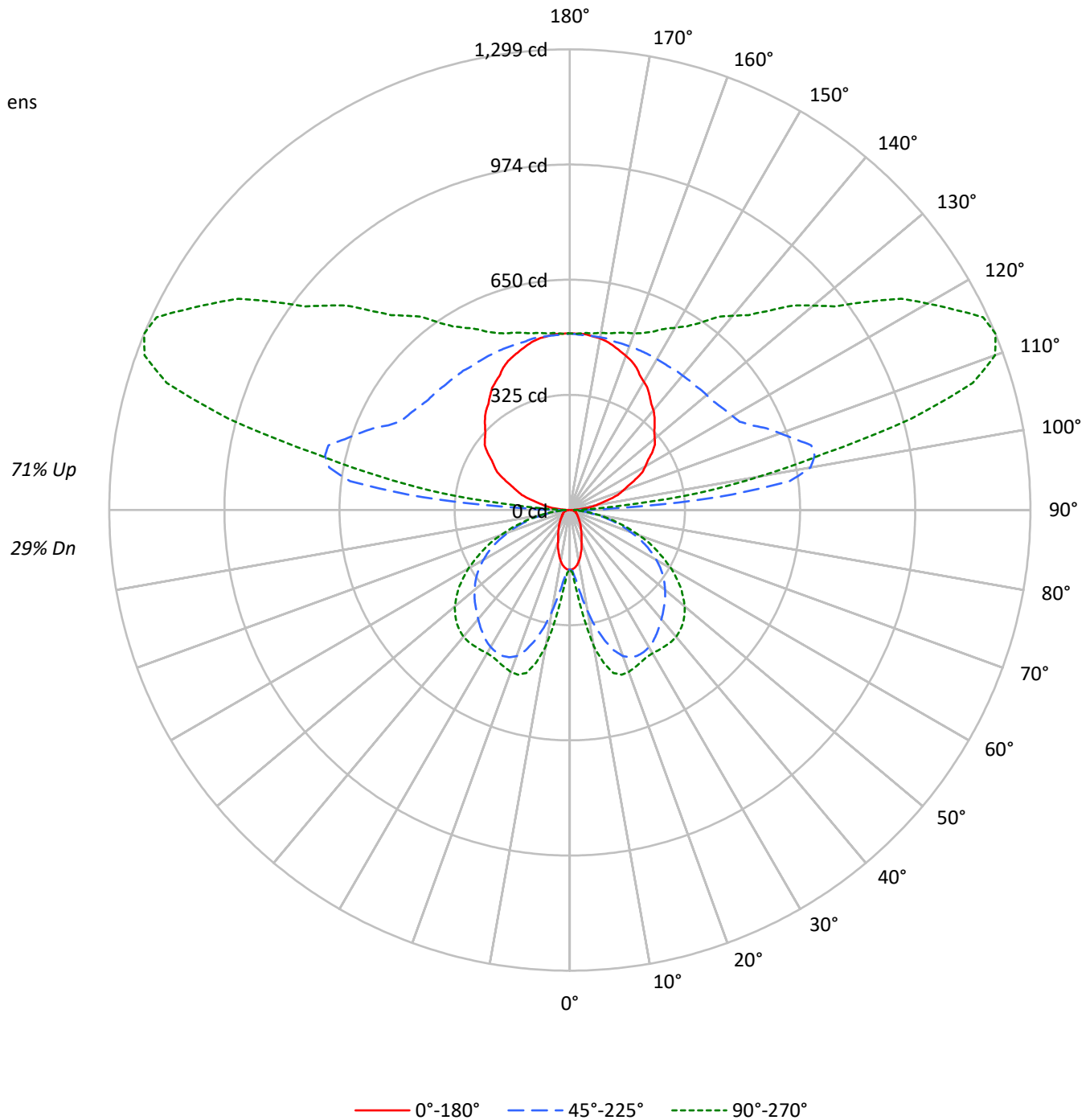
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4524.1 lumens
Efficiency: N/A
Efficacy: 109.8 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

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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
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°	1554	1554	1554
5°	1517	1795	2090
10°	1374	2616	3464
15°	1167	3414	4183
20°	949	3954	4263
25°	790	4135	4176
30°	665	4157	4169
35°	588	4085	4276
40°	511	3992	4387
45°	462	3923	4405
50°	423	3860	4332
55°	405	3769	4140
60°	411	3599	3837
65°	427	3341	3419
70°	449	2908	2889
75°	495	2364	2254
80°	529	1636	1521
85°	447	865	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4405 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	0.5
10°-20°	96.0	2.1
20°-30°	168.0	3.7
30°-40°	216.3	4.8
40°-50°	241.6	5.3
50°-60°	231.4	5.1
60°-70°	183.4	4.1
70°-80°	107.8	2.4
80°-90°	31.9	0.7
90°-100°	242.6	5.4
100°-110°	637.8	14.1
110°-120°	661.3	14.6
120°-130°	530.4	11.7
130°-140°	416.2	9.2
140°-150°	319.5	7.1
150°-160°	230.1	5.1
160°-170°	140.8	3.1
170°-180°	47.6	1.1
0°-30°	285.7	6.3
0°-40°	502.0	11.1
0°-60°	974.9	21.5
0°-90°	1298.0	28.7
90°-120°	1541.7	34.1
90°-150°	2807.8	62.1
90°-180°	3226.0	71.3
0°-180°	4524.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	168	168	168	168	168	
5°	163	175	197	223	231	15
15°	122	226	380	461	476	34
25°	78	256	453	473	474	36
35°	53	245	427	451	469	33
45°	36	195	377	432	451	28
55°	26	124	320	372	382	24
65°	20	66	238	267	271	20
75°	15	40	130	143	144	16
85°	5	12	32	36	36	6
90°	3	9	25	13	13	3
95°	32	126	418	215	147	36
105°	115	174	705	1070	999	122
115°	204	248	565	1127	1286	202
125°	284	318	514	868	1024	252
135°	338	372	498	701	795	262
145°	392	418	491	598	645	246
155°	444	456	491	539	555	204
165°	479	485	491	511	517	135
175°	498	498	495	501	501	47
180°	498	498	498	498	498	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5
2.5°	167.5	167.5	168.6	169.1	170.2	170.8	171.8	172.9	176.2	176.7	177.8
5°	163.2	165.4	172.4	175.1	182.6	192.9	197.1	204.2	218.7	223.0	225.7
7.5°	156.7	161.6	178.8	183.2	202.0	228.9	240.3	255.4	278.5	289.8	299.0
10°	146.5	156.7	187.5	197.7	228.4	269.3	290.4	311.4	346.4	362.0	367.9
12.5°	135.2	151.9	196.7	210.6	254.8	314.6	339.9	363.1	402.9	424.0	427.2
15°	122.3	144.9	205.2	225.7	282.8	352.3	380.3	408.9	446.1	461.1	464.9
17.5°	111.0	139.6	213.4	234.9	304.3	386.2	414.8	438.5	468.6	478.9	481.6
20°	97.0	130.9	218.7	246.8	327.0	411.1	438.5	456.8	477.3	483.7	484.9
22.5°	86.7	121.7	221.9	251.0	342.1	426.1	449.3	463.8	477.8	480.0	480.5
25°	78.1	111.5	221.4	255.9	355.0	435.2	453.1	463.8	471.9	473.0	473.0
27.5°	70.0	100.2	219.2	257.0	364.7	437.4	451.4	459.0	462.8	464.9	464.9
30°	63.0	89.5	213.8	254.8	369.0	435.2	446.5	450.3	454.1	457.4	459.0
32.5°	57.7	79.2	205.8	250.5	369.5	429.8	438.0	440.1	445.5	453.1	455.7
35°	52.8	69.0	196.7	244.6	366.3	421.3	426.6	428.8	439.6	450.9	454.7
37.5°	47.9	61.4	184.8	234.3	361.4	411.1	414.8	418.6	435.2	448.7	453.1
40°	43.1	54.9	170.8	223.0	354.0	398.6	401.9	407.8	429.8	445.5	449.8
42.5°	39.3	49.5	155.7	211.2	344.2	384.6	389.5	398.1	423.4	440.1	444.9
45°	36.1	44.2	139.6	195.0	331.8	370.1	377.1	389.0	415.9	432.0	436.4
47.5°	32.8	40.4	122.9	178.3	318.4	355.6	364.7	378.1	405.7	421.3	425.0
50°	30.2	36.6	106.2	160.5	303.9	339.9	350.7	364.7	392.7	407.3	412.1
52.5°	28.0	33.4	90.5	142.8	287.2	323.8	336.1	350.7	377.1	391.1	394.4
55°	25.9	30.7	77.0	123.9	269.9	306.5	320.0	334.0	359.8	371.7	373.9
57.5°	24.8	28.6	65.7	106.2	251.6	287.2	302.2	315.1	339.3	348.5	350.7
60°	23.1	26.9	57.1	91.1	231.7	268.8	281.8	294.7	315.1	322.6	324.3
62.5°	21.5	25.9	50.7	76.5	211.2	247.2	260.2	272.1	289.2	294.7	296.8
65°	20.5	24.8	45.8	65.7	190.2	224.6	237.5	247.8	261.8	267.2	268.3
67.5°	19.4	23.7	42.0	56.5	169.1	202.0	211.7	221.4	232.1	237.5	238.1
70°	17.7	22.6	38.8	50.1	147.6	176.2	184.2	194.5	203.1	205.8	207.4
72.5°	16.7	21.0	36.6	45.3	125.5	151.4	158.9	164.9	172.4	175.1	175.1
75°	15.1	18.9	34.4	40.4	102.9	123.9	130.3	136.3	142.2	143.3	141.6
77.5°	13.5	16.7	29.6	34.0	80.3	98.0	103.4	106.6	111.5	112.6	113.1
80°	11.3	14.5	23.1	26.4	58.2	72.2	76.0	78.6	82.9	82.9	84.1
82.5°	8.6	11.3	16.7	18.9	39.3	49.5	52.8	54.4	57.1	57.1	57.1
85°	5.4	7.0	10.8	12.4	23.7	30.2	32.4	32.8	35.0	35.6	35.6
87.5°	2.7	3.8	7.0	7.5	12.4	15.7	15.7	16.7	16.7	16.1	15.7
90°	3.4	6.0	8.7	9.3	14.7	21.8	25.4	22.6	16.9	12.7	12.7
92.5°	13.3	36.1	58.8	64.5	90.7	125.5	142.9	125.3	89.9	63.4	60.9
95°	32.0	73.6	115.2	125.6	223.0	352.8	417.8	372.8	282.9	215.4	207.8
97.5°	55.4	92.1	128.8	138.0	300.4	517.0	625.2	596.8	539.9	497.3	482.8
100°	73.5	106.7	140.0	148.3	328.6	568.9	689.1	691.1	695.2	698.4	681.0
102.5°	88.8	119.9	150.9	158.7	341.5	585.2	707.1	743.3	815.8	870.1	855.2
105°	114.9	141.2	167.4	174.0	351.1	587.1	705.1	786.3	948.7	1070.5	1062.5
107.5°	141.6	166.1	190.6	196.7	352.8	560.9	665.0	778.3	1004.8	1174.7	1176.6
110°	159.6	181.8	203.9	209.4	350.1	537.8	631.6	758.2	1011.5	1201.4	1209.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	177.4	198.4	219.5	224.8	350.3	517.5	601.2	730.8	989.9	1184.3	1197.1
115°	204.0	223.5	242.9	247.8	353.5	494.4	564.8	689.7	939.3	1126.6	1144.3
117.5°	230.5	248.1	265.8	270.2	360.1	479.9	539.8	652.4	877.8	1046.8	1066.4
120°	245.8	262.4	279.0	283.2	365.4	475.0	529.7	632.7	838.6	993.0	1012.1
122.5°	260.9	277.7	294.5	298.6	373.1	472.4	522.0	614.7	800.1	939.2	958.0
125°	283.9	299.2	314.5	318.3	383.4	470.2	513.7	592.5	749.9	868.0	885.4
127.5°	302.6	318.0	333.5	337.3	393.8	469.0	506.7	574.3	709.5	810.9	825.6
130°	312.6	329.2	345.9	350.0	401.3	469.8	504.0	564.3	684.6	774.9	788.4
132.5°	323.0	339.6	356.2	360.4	407.4	470.2	501.6	555.5	663.3	744.1	756.3
135°	338.4	353.5	368.7	372.4	414.2	469.8	497.7	542.8	633.0	700.7	711.1
137.5°	354.0	369.1	384.0	387.8	424.1	472.7	497.0	535.1	611.4	668.7	677.2
140°	367.1	380.9	394.7	398.1	430.3	473.2	494.6	527.6	593.5	643.0	650.9
142.5°	377.1	389.9	402.6	405.8	435.5	474.9	494.6	523.6	581.5	624.9	631.8
145°	392.4	403.6	414.7	417.5	442.1	475.0	491.4	515.0	562.3	597.8	603.1
147.5°	407.8	418.7	429.4	432.2	451.9	478.2	491.4	510.0	547.2	575.2	579.5
150°	417.8	427.6	437.4	439.9	457.1	480.0	491.4	507.1	538.5	562.1	565.6
152.5°	428.2	435.5	443.0	444.9	460.4	481.0	491.4	504.8	531.6	551.7	554.4
155°	443.6	449.0	454.6	455.9	467.7	483.5	491.4	502.0	523.4	539.4	541.1
157.5°	454.9	460.3	465.6	466.9	475.1	485.9	491.4	499.6	516.2	528.7	529.9
160°	462.6	466.8	470.9	471.9	478.4	487.0	491.4	498.5	512.7	523.4	524.1
162.5°	470.2	473.4	476.5	477.3	482.0	488.2	491.4	497.4	509.3	518.3	519.0
165°	478.6	481.4	484.2	484.9	487.1	489.9	491.4	495.7	504.3	510.7	511.4
167.5°	486.3	487.7	489.0	489.3	491.1	493.4	494.6	497.5	503.1	507.3	507.7
170°	491.4	492.6	494.0	494.3	494.4	494.6	494.6	497.5	503.1	507.3	507.3
172.5°	494.0	494.3	494.6	494.6	494.6	494.6	494.6	496.9	501.3	504.7	504.4
175°	497.7	497.7	497.7	497.7	496.7	495.3	494.6	496.1	498.9	501.0	501.0
177.5°	497.7	497.7	497.7	497.7	496.9	495.9	495.3	496.4	498.7	500.3	500.0
180°	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	167.5	167.5
2.5°	178.8	177.8
5°	230.1	231.1
7.5°	309.7	309.2
10°	385.2	390.0
12.5°	440.1	441.2
15°	473.5	475.7
17.5°	486.5	487.0
20°	487.0	485.9
22.5°	481.1	480.0
25°	474.1	473.5
27.5°	467.6	468.1
30°	464.9	466.5
32.5°	464.9	467.6
35°	466.0	468.6
37.5°	465.4	468.6
40°	463.3	467.0
42.5°	457.4	460.0
45°	448.2	451.4
47.5°	436.4	438.5
50°	421.3	423.4
52.5°	402.4	402.9
55°	379.8	381.9
57.5°	355.6	356.1
60°	328.6	330.2
62.5°	300.1	300.1
65°	269.9	270.9
67.5°	238.7	241.3
70°	206.9	207.4
72.5°	175.6	175.6
75°	143.3	143.8
77.5°	112.6	112.6
80°	83.5	84.1
82.5°	57.7	58.7
85°	36.1	36.1
87.5°	16.7	15.1
90°	12.7	12.7
92.5°	50.8	40.7
95°	177.2	146.6
97.5°	424.5	366.4
100°	611.7	542.4
102.5°	795.9	736.5
105°	1030.6	998.7
107.5°	1184.3	1192.1
110°	1243.0	1276.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1248.2	1299.3
115°	1215.1	1285.9
117.5°	1144.9	1223.5
120°	1088.4	1164.7
122.5°	1033.3	1108.5
125°	954.7	1024.1
127.5°	884.1	942.6
130°	842.4	896.5
132.5°	804.6	853.0
135°	752.8	794.6
137.5°	711.4	745.5
140°	682.9	714.8
142.5°	659.3	686.7
145°	623.9	644.6
147.5°	596.7	613.9
150°	579.5	593.5
152.5°	564.9	575.5
155°	548.1	555.1
157.5°	534.9	539.8
160°	526.9	529.7
162.5°	521.7	524.4
165°	514.2	517.1
167.5°	508.8	510.0
170°	507.3	507.3
172.5°	503.4	502.4
175°	501.0	501.0
177.5°	498.9	497.7
180°	497.7	497.7



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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	0.15	0.87	1.27	1.98	3.52	13.29	14.01	14.41	15.12	16.66
	3H	0.85	1.49	1.97	2.61	4.17	15.10	15.75	16.23	16.87	18.43
	4H	1.14	1.75	2.27	2.87	4.44	15.73	16.34	16.87	17.47	19.03
	6H	1.38	1.94	2.52	3.07	4.65	16.14	16.71	17.28	17.83	19.41
	8H	1.44	1.98	2.59	3.12	4.69	16.25	16.79	17.40	17.93	19.50
	12H	1.46	1.97	2.61	3.10	4.69	16.31	16.82	17.46	17.95	19.54
4H	2H	7.32	7.93	8.46	9.06	10.62	13.55	14.16	14.69	15.28	16.85
	3H	8.88	9.39	10.03	10.54	12.12	15.57	16.08	16.71	17.22	18.80
	4H	8.97	9.44	10.12	10.58	12.17	16.32	16.79	17.47	17.92	19.52
	6H	8.97	9.37	10.13	10.53	12.12	16.83	17.24	17.99	18.40	19.99
	8H	8.94	9.32	10.10	10.47	12.08	16.99	17.36	18.14	18.51	20.12
	12H	8.89	9.24	10.07	10.40	12.01	17.06	17.41	18.24	18.57	20.18
8H	4H	10.39	10.77	11.55	11.92	13.52	16.36	16.74	17.52	17.89	19.50
	6H	10.63	10.94	11.80	12.13	13.73	16.97	17.29	18.15	18.48	20.08
	8H	10.64	10.91	11.82	12.09	13.71	17.18	17.46	18.37	18.63	20.25
	12H	10.60	10.84	11.79	12.01	13.67	17.31	17.55	18.50	18.72	20.38
12H	4H	10.52	10.86	11.70	12.03	13.64	16.31	16.65	17.48	17.81	19.42
	6H	10.88	11.15	12.06	12.32	13.94	16.96	17.23	18.14	18.40	20.02
	8H	10.94	11.18	12.13	12.35	14.00	17.17	17.41	18.36	18.58	20.23