

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: P938022

Luminaire Tested: SQ4-FB-125U-100D-927-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938022
REPORT IS A COMBINATION OF REPORTS P933599 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-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

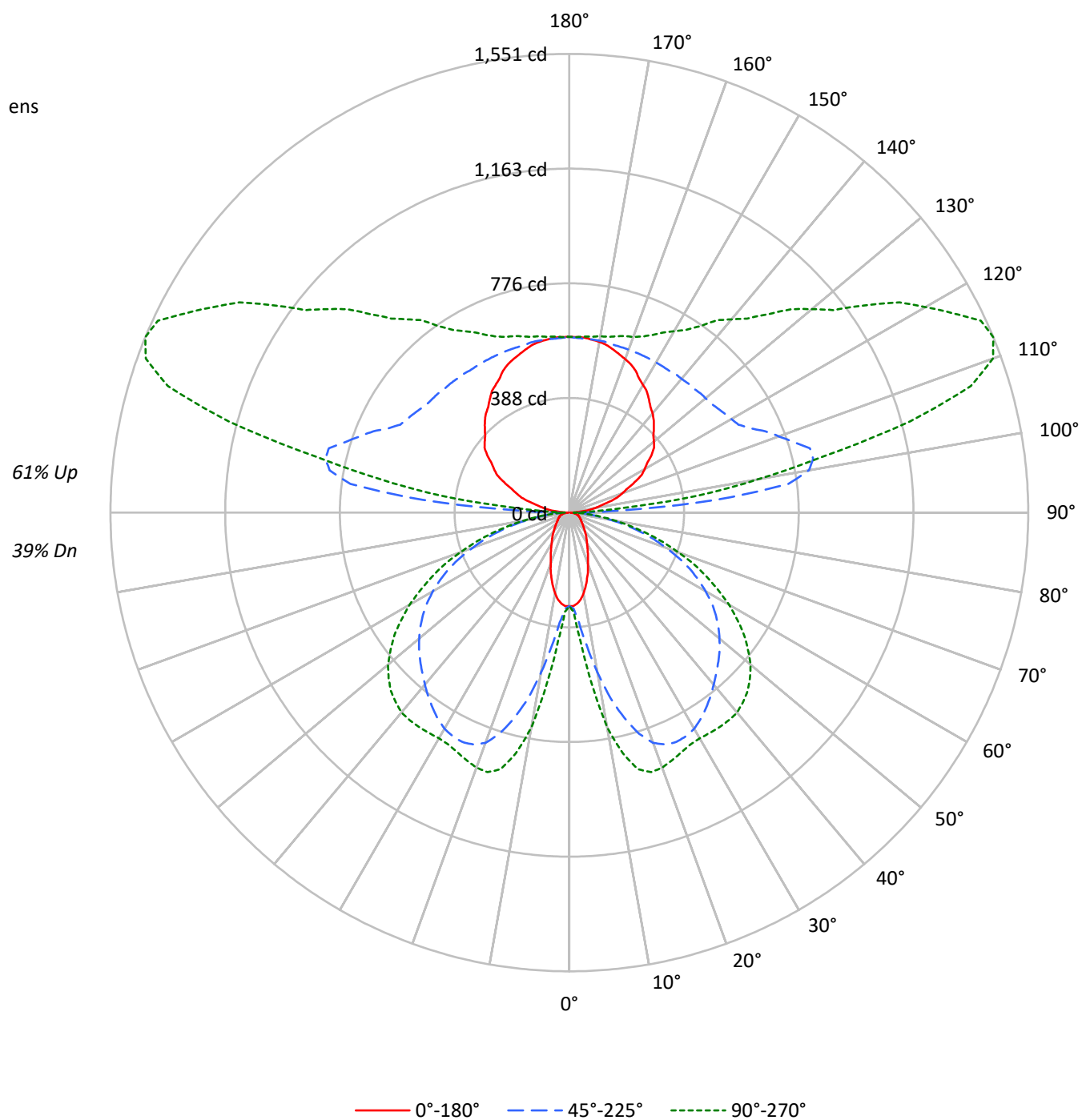
Lumens per Lamp: N/A
Luminaire Lumens: 6300.9 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 64.4
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10

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	0.6
10°-20°	181.4	2.9
20°-30°	317.3	5.0
30°-40°	408.5	6.5
40°-50°	456.2	7.2
50°-60°	437.0	6.9
60°-70°	346.3	5.5
70°-80°	203.6	3.2
80°-90°	58.8	0.9
90°-100°	289.6	4.6
100°-110°	761.3	12.1
110°-120°	789.4	12.5
120°-130°	633.1	10.0
130°-140°	496.8	7.9
140°-150°	381.3	6.1
150°-160°	274.6	4.4
160°-170°	168.0	2.7
170°-180°	56.8	0.9
0°-30°	539.6	8.6
0°-40°	948.1	15.0
0°-60°	1841.3	29.2
0°-90°	2450.1	38.9
90°-120°	1840.2	29.2
90°-150°	3351.4	53.2
90°-180°	3851.0	61.1
0°-180°	6300.9	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°	4	11	30	15	15	4
95°	38	150	499	257	175	42
105°	137	208	842	1278	1192	145
115°	244	296	674	1345	1535	241
125°	339	380	613	1036	1222	301
135°	404	444	594	836	948	312
145°	468	498	586	714	770	293
155°	530	544	586	644	663	243
165°	571	579	586	610	617	161
175°	594	594	590	598	598	56
180°	594	594	594	594	594	

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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°	4.0	7.2	10.4	11.2	17.6	26.0	30.3	26.9	20.2	15.2	15.2
92.5°	15.9	43.0	70.1	76.9	108.2	149.8	170.6	149.5	107.4	75.8	72.8
95°	38.3	87.9	137.5	149.9	266.2	421.2	498.7	445.1	337.7	257.2	248.0
97.5°	66.1	109.9	153.7	164.6	358.5	617.0	746.3	712.3	644.5	593.6	576.3
100°	87.7	127.4	167.1	177.0	392.2	679.0	822.4	824.9	829.9	833.6	812.9
102.5°	106.0	143.1	180.1	189.3	407.6	698.5	844.0	887.3	973.7	1038.6	1020.9
105°	137.1	168.6	199.9	207.7	419.0	700.8	841.6	938.6	1132.4	1277.7	1268.2
107.5°	169.0	198.3	227.5	234.8	421.2	669.6	793.8	929.0	1199.4	1402.1	1404.4
110°	190.6	217.0	243.3	249.9	418.0	641.9	753.9	905.1	1207.4	1434.0	1444.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	211.7	236.9	262.0	268.3	418.0	617.8	717.6	872.3	1181.7	1413.7	1429.0
115°	243.6	266.8	290.1	295.8	422.0	590.1	674.1	823.1	1121.2	1344.7	1365.8
117.5°	275.1	296.2	317.3	322.6	429.8	572.8	644.3	778.7	1047.7	1249.4	1272.8
120°	293.4	313.3	333.2	338.1	436.2	567.0	632.3	755.2	1000.9	1185.3	1208.1
122.5°	311.4	331.4	351.4	356.4	445.4	563.9	623.2	733.8	955.1	1121.0	1143.5
125°	338.9	357.1	375.4	379.9	457.7	561.3	613.2	707.2	895.1	1036.1	1056.8
127.5°	361.2	379.6	398.0	402.6	470.0	559.9	604.8	685.5	846.9	968.0	985.4
130°	373.1	393.0	412.9	417.8	479.1	560.8	601.6	673.4	817.1	924.9	941.0
132.5°	385.5	405.4	425.3	430.2	486.4	561.3	598.8	663.1	791.8	888.3	902.7
135°	403.9	422.0	440.0	444.5	494.3	560.8	594.1	648.0	755.7	836.5	848.9
137.5°	422.6	440.4	458.4	462.8	506.3	564.3	593.2	638.7	729.8	798.1	808.3
140°	438.1	454.6	471.1	475.2	513.7	564.9	590.4	629.8	708.5	767.5	777.0
142.5°	450.1	465.3	480.6	484.4	519.8	566.9	590.4	625.0	694.1	745.9	754.1
145°	468.5	481.7	495.0	498.3	527.7	566.9	586.4	614.7	671.2	713.6	719.9
147.5°	486.8	499.7	512.7	515.9	539.4	570.7	586.4	608.7	653.2	686.5	691.7
150°	498.7	510.4	522.1	525.1	545.5	572.8	586.4	605.2	642.8	671.0	675.1
152.5°	511.1	520.0	528.8	531.1	549.5	574.1	586.4	602.4	634.6	658.6	661.7
155°	529.5	536.0	542.5	544.2	558.2	577.0	586.4	599.2	624.7	643.9	646.0
157.5°	543.0	549.4	555.7	557.3	567.0	580.0	586.4	596.4	616.2	631.1	632.6
160°	552.2	557.1	562.1	563.3	571.0	581.3	586.4	594.9	611.9	624.7	625.5
162.5°	561.3	565.0	568.8	569.7	575.3	582.7	586.4	593.6	608.0	618.8	619.5
165°	571.3	574.7	578.0	578.9	581.4	584.7	586.4	591.6	601.8	609.5	610.4
167.5°	580.5	582.0	583.7	584.0	586.2	589.1	590.4	593.8	600.5	605.6	606.0
170°	586.4	588.0	589.7	590.1	590.2	590.4	590.4	593.8	600.5	605.6	605.6
172.5°	589.7	590.0	590.4	590.4	590.4	590.4	590.4	593.1	598.4	602.4	602.1
175°	594.1	594.1	594.1	594.1	592.8	591.2	590.4	592.1	595.4	598.0	598.0
177.5°	594.1	594.1	594.1	594.1	593.1	591.8	591.2	592.5	595.2	597.2	596.8
180°	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1

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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°	15.2	15.2
92.5°	60.7	48.7
95°	211.5	175.0
97.5°	506.8	437.4
100°	730.2	647.4
102.5°	949.9	879.1
105°	1230.2	1192.0
107.5°	1413.6	1422.9
110°	1483.6	1523.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1489.9	1550.9
115°	1450.4	1534.9
117.5°	1366.6	1460.3
120°	1299.1	1390.2
122.5°	1233.3	1323.2
125°	1139.5	1222.3
127.5°	1055.2	1125.0
130°	1005.5	1070.1
132.5°	960.4	1018.2
135°	898.7	948.4
137.5°	849.1	889.8
140°	815.0	853.2
142.5°	786.9	819.7
145°	744.7	769.5
147.5°	712.2	732.7
150°	691.8	708.5
152.5°	674.3	686.9
155°	654.3	662.6
157.5°	638.4	644.3
160°	628.9	632.3
162.5°	622.8	625.9
165°	613.8	617.2
167.5°	607.4	608.8
170°	605.6	605.6
172.5°	600.8	599.6
175°	598.0	598.0
177.5°	595.4	594.1
180°	594.1	594.1

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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	3.62	4.42	4.66	5.47	6.89	16.76	17.56	17.80	18.61	20.03
	3H	4.32	5.04	5.37	6.10	7.53	18.58	19.30	19.63	20.36	21.79
	4H	4.62	5.30	5.68	6.36	7.80	19.21	19.89	20.27	20.95	22.40
	6H	4.87	5.49	5.94	6.56	8.01	19.63	20.25	20.70	21.32	22.78
	8H	4.93	5.53	6.01	6.61	8.06	19.74	20.34	20.82	21.42	22.87
	12H	4.95	5.51	6.03	6.59	8.06	19.80	20.37	20.88	21.44	22.92
4H	2H	10.81	11.48	11.87	12.55	13.99	17.03	17.71	18.10	18.77	20.21
	3H	12.37	12.94	13.45	14.03	15.48	19.05	19.62	20.13	20.71	22.17
	4H	12.46	12.98	13.54	14.06	15.54	19.81	20.33	20.89	21.41	22.89
	6H	12.47	12.92	13.56	14.02	15.49	20.33	20.78	21.42	21.88	23.36
	8H	12.44	12.86	13.54	13.96	15.45	20.48	20.90	21.58	22.00	23.49
	12H	12.40	12.78	13.51	13.89	15.38	20.57	20.95	21.68	22.05	23.55
8H	4H	13.89	14.31	14.98	15.40	16.89	19.86	20.28	20.96	21.38	22.87
	6H	14.13	14.48	15.24	15.61	17.10	20.48	20.83	21.59	21.96	23.45
	8H	14.15	14.45	15.27	15.57	17.08	20.69	20.99	21.81	22.11	23.62
	12H	14.11	14.38	15.24	15.50	17.04	20.82	21.09	21.95	22.20	23.75
12H	4H	14.03	14.41	15.14	15.52	17.01	19.81	20.19	20.92	21.30	22.80
	6H	14.38	14.69	15.50	15.81	17.31	20.46	20.77	21.58	21.88	23.39
	8H	14.45	14.72	15.58	15.83	17.38	20.68	20.95	21.80	22.06	23.60