

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: P936874

Luminaire Tested: SQ4-FB-050U-100D-940-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936874
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-940-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

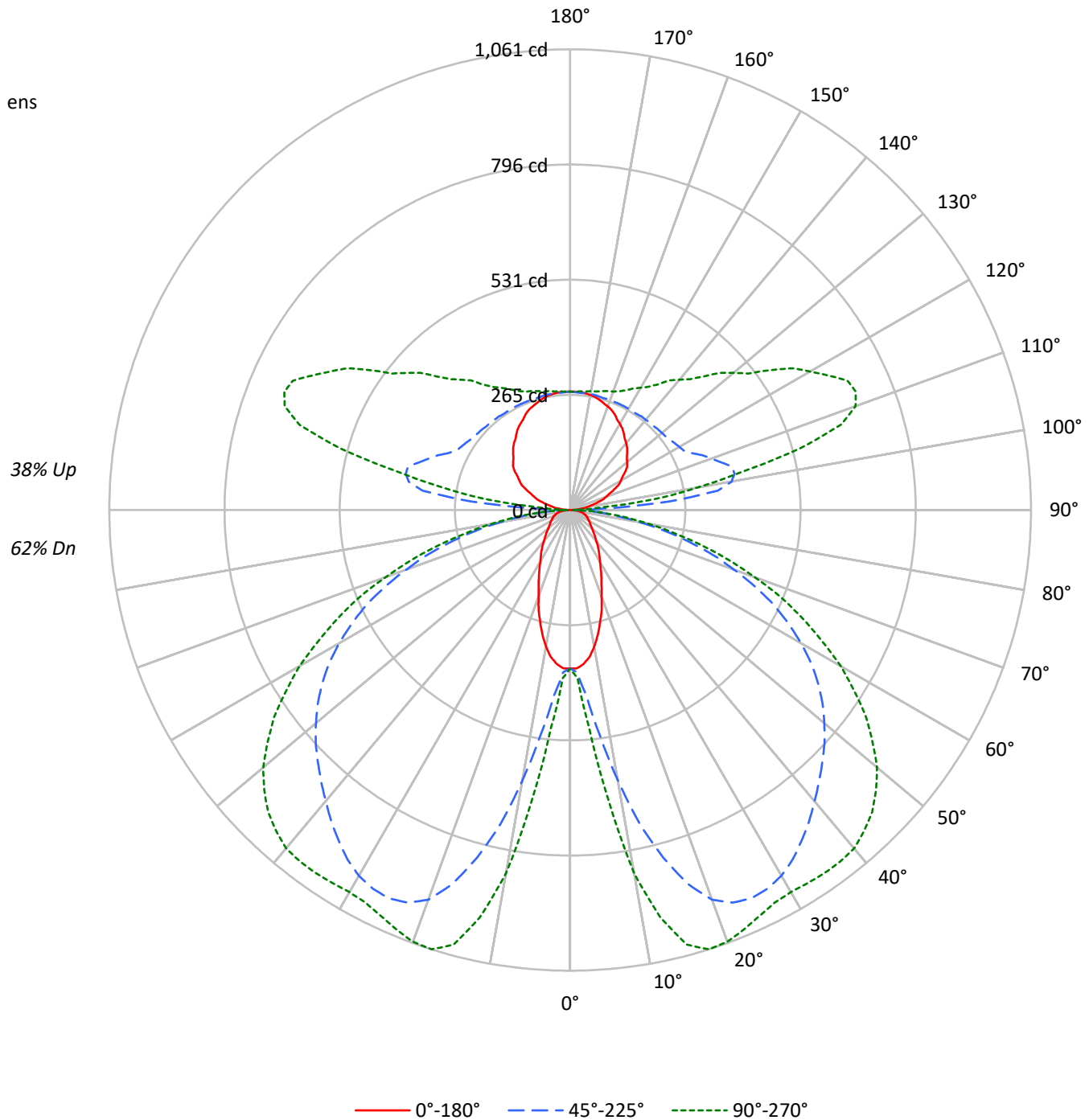
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4591.8 lumens
Efficiency: N/A
Efficacy: 101.6 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 (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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3386	3386	3386
5°	3305	3910	4552
10°	2993	5696	7546
15°	2541	7437	9111
20°	2067	8612	9285
25°	1722	9004	9097
30°	1450	9055	9080
35°	1280	8898	9314
40°	1114	8695	9557
45°	1006	8544	9595
50°	921	8407	9436
55°	879	8210	9018
60°	897	7839	8358
65°	929	7278	7450
70°	982	6336	6293
75°	1079	5153	4912
80°	1151	3559	3309
85°	969	1879	1694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9595 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.2	1.0
10°-20°	209.2	4.6
20°-30°	365.9	8.0
30°-40°	471.1	10.3
40°-50°	526.2	11.5
50°-60°	503.9	11.0
60°-70°	399.4	8.7
70°-80°	234.8	5.1
80°-90°	66.3	1.4
90°-100°	132.9	2.9
100°-110°	349.5	7.6
110°-120°	362.4	7.9
120°-130°	290.7	6.3
130°-140°	228.1	5.0
140°-150°	175.1	3.8
150°-160°	126.1	2.7
160°-170°	77.1	1.7
170°-180°	26.1	0.6
0°-30°	622.3	13.6
0°-40°	1093.4	23.8
0°-60°	2123.5	46.2
0°-90°	2824.0	61.5
90°-120°	844.8	18.4
90°-150°	1538.5	33.5
90°-180°	1768.0	38.5
0°-180°	4591.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	365	365	365	365	365	
5°	356	381	429	486	503	33
15°	266	492	828	1004	1036	74
25°	170	557	987	1030	1031	78
35°	115	533	929	982	1021	72
45°	79	425	821	941	983	61
55°	56	270	697	810	832	51
65°	45	143	517	582	590	44
75°	33	88	284	312	313	34
85°	12	27	70	77	79	12
90°	2	5	14	7	7	2
95°	18	69	229	118	80	20
105°	63	95	386	587	547	67
115°	112	136	310	617	705	110
125°	156	174	282	476	561	138
135°	185	204	273	384	435	143
145°	215	229	269	328	353	135
155°	243	250	269	296	304	112
165°	262	266	269	280	283	74
175°	273	273	271	275	275	26
180°	273	273	273	273	273	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9
2.5°	364.9	364.9	367.3	368.4	370.7	372.0	374.3	376.6	383.7	384.9	387.2
5°	355.6	360.3	375.4	381.3	397.7	420.0	429.4	444.7	476.4	485.7	491.6
7.5°	341.4	352.0	389.6	399.0	440.0	498.7	523.3	556.2	606.6	631.3	651.2
10°	319.1	341.4	408.3	430.6	497.5	586.7	632.4	678.2	754.4	788.5	801.4
12.5°	294.5	330.9	428.3	458.7	555.0	685.3	740.4	790.9	877.7	923.4	930.4
15°	266.3	315.6	447.0	491.6	616.0	767.4	828.4	890.6	971.6	1004.4	1012.6
17.5°	241.7	303.9	464.6	511.6	663.0	841.3	903.5	955.1	1020.8	1043.1	1049.0
20°	211.2	285.1	476.4	537.4	712.3	895.3	955.1	995.0	1039.6	1053.7	1056.0
22.5°	188.9	265.2	483.4	546.7	745.0	928.1	978.6	1010.3	1040.7	1045.4	1046.6
25°	170.1	242.9	482.3	557.3	773.3	948.0	986.7	1010.3	1027.9	1030.2	1030.2
27.5°	152.6	218.3	477.6	559.7	794.3	952.7	983.3	999.7	1007.9	1012.6	1012.6
30°	137.3	194.7	465.8	555.0	803.7	948.0	972.7	980.9	989.1	996.2	999.7
32.5°	125.6	172.4	448.3	545.6	804.9	936.3	953.9	958.6	970.3	986.7	992.7
35°	115.0	150.2	428.3	532.7	797.9	917.6	929.3	934.0	957.4	982.1	990.3
37.5°	104.4	133.7	402.4	510.4	787.3	895.3	903.5	911.7	948.0	977.4	986.7
40°	93.9	119.7	372.0	485.7	770.9	868.3	875.3	888.3	936.3	970.3	979.7
42.5°	85.7	108.0	339.1	460.0	749.7	837.7	848.3	867.1	922.3	958.6	969.2
45°	78.6	96.2	303.9	424.7	722.7	806.1	821.3	847.2	905.8	941.0	950.4
47.5°	71.6	88.0	267.6	388.4	693.4	774.4	794.3	823.7	883.6	917.6	925.7
50°	65.7	79.8	231.1	349.7	661.7	740.4	763.9	794.3	855.4	887.0	897.6
52.5°	61.0	72.7	197.1	311.0	625.4	705.2	732.2	763.9	821.3	851.9	858.9
55°	56.3	66.9	167.8	269.9	587.9	667.6	697.0	727.4	783.8	809.6	814.3
57.5°	54.0	62.2	143.1	231.1	548.0	625.4	658.3	686.4	739.2	759.2	763.9
60°	50.4	58.7	124.4	198.3	504.6	585.5	613.7	641.8	686.4	702.9	706.3
62.5°	47.0	56.3	110.3	166.6	460.0	538.6	566.7	592.6	630.1	641.8	646.6
65°	44.6	54.0	99.7	143.1	414.2	489.3	517.4	539.7	570.3	582.0	584.3
67.5°	42.3	51.6	91.6	123.2	368.4	440.0	461.1	482.3	505.7	517.4	518.6
70°	38.7	49.3	84.4	109.1	321.5	383.7	401.3	423.6	442.3	448.3	451.7
72.5°	36.4	45.7	79.8	98.6	273.4	329.7	346.1	359.0	375.4	381.3	381.3
75°	32.9	41.0	75.1	88.0	224.1	269.9	284.0	296.9	309.7	312.1	308.6
77.5°	29.3	36.4	64.6	73.9	174.8	213.6	225.3	232.3	242.9	245.3	246.4
80°	24.6	31.7	50.4	57.5	126.7	157.3	165.4	171.3	180.7	180.7	183.0
82.5°	18.7	24.6	36.4	41.0	85.7	108.0	115.0	118.5	124.4	124.4	124.4
85°	11.7	15.3	23.4	27.0	51.6	65.7	70.4	71.6	76.3	77.4	77.4
87.5°	5.9	8.2	15.3	16.4	27.0	34.0	34.0	36.4	36.4	35.2	34.0
90°	1.9	3.3	4.8	5.2	8.1	12.0	13.9	12.3	9.2	6.9	6.9
92.5°	7.3	19.7	32.2	35.3	49.6	68.7	78.3	68.6	49.3	34.8	33.4
95°	17.6	40.3	63.1	68.8	122.2	193.3	228.9	204.2	155.0	118.0	113.8
97.5°	30.4	50.4	70.5	75.6	164.5	283.3	342.6	327.1	295.9	272.5	264.5
100°	40.2	58.4	76.7	81.3	180.0	311.7	377.6	378.7	381.0	382.7	373.2
102.5°	48.7	65.7	82.7	86.9	187.1	320.7	387.4	407.3	447.0	476.8	468.6
105°	63.0	77.3	91.7	95.4	192.3	321.7	386.4	430.9	519.8	586.6	582.3
107.5°	77.6	91.0	104.4	107.8	193.3	307.4	364.4	426.5	550.6	643.7	644.8
110°	87.5	99.5	111.7	114.7	191.9	294.7	346.1	415.5	554.3	658.4	662.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	97.1	108.7	120.2	123.2	191.9	283.6	329.4	400.5	542.5	649.0	656.1
115°	111.8	122.5	133.1	135.8	193.7	270.8	309.5	377.8	514.7	617.3	627.0
117.5°	126.3	136.0	145.6	148.0	197.3	262.9	295.8	357.5	480.9	573.6	584.3
120°	134.7	143.9	152.9	155.2	200.2	260.3	290.3	346.7	459.5	544.2	554.6
122.5°	143.0	152.2	161.3	163.7	204.4	258.9	286.0	336.8	438.5	514.7	525.0
125°	155.6	163.9	172.3	174.4	210.1	257.7	281.5	324.7	411.0	475.7	485.2
127.5°	165.8	174.3	182.8	184.9	215.8	257.1	277.7	314.7	388.8	444.4	452.3
130°	171.3	180.4	189.5	191.8	220.0	257.4	276.2	309.2	375.2	424.6	432.0
132.5°	177.0	186.1	195.2	197.5	223.3	257.7	274.9	304.4	363.5	407.8	414.4
135°	185.4	193.7	202.0	204.1	227.0	257.4	272.7	297.4	346.9	384.0	389.7
137.5°	194.0	202.2	210.5	212.5	232.5	259.0	272.3	293.2	335.0	366.4	371.1
140°	201.1	208.7	216.3	218.2	235.8	259.3	271.0	289.1	325.3	352.4	356.7
142.5°	206.6	213.7	220.6	222.4	238.6	260.2	271.0	286.9	318.6	342.4	346.1
145°	215.1	221.1	227.2	228.7	242.2	260.3	269.2	282.2	308.1	327.6	330.4
147.5°	223.5	229.5	235.3	236.8	247.7	262.0	269.2	279.5	299.9	315.2	317.5
150°	228.9	234.3	239.7	241.0	250.4	262.9	269.2	277.9	295.1	308.0	310.0
152.5°	234.6	238.7	242.8	243.8	252.3	263.6	269.2	276.6	291.4	302.4	303.8
155°	243.0	246.1	249.1	249.8	256.3	264.9	269.2	275.1	286.8	295.6	296.6
157.5°	249.3	252.2	255.1	255.8	260.3	266.2	269.2	273.8	282.9	289.8	290.5
160°	253.5	255.7	258.1	258.6	262.1	266.8	269.2	273.1	281.0	286.8	287.2
162.5°	257.7	259.4	261.1	261.5	264.1	267.6	269.2	272.5	279.1	284.1	284.4
165°	262.3	263.8	265.4	265.8	266.9	268.4	269.2	271.6	276.3	279.8	280.2
167.5°	266.5	267.2	267.9	268.1	269.1	270.4	271.0	272.6	275.7	278.0	278.2
170°	269.2	270.0	270.7	270.8	270.9	271.0	271.0	272.6	275.7	278.0	278.0
172.5°	270.7	270.8	271.0	271.0	271.0	271.0	271.0	272.3	274.7	276.5	276.3
175°	272.7	272.7	272.7	272.7	272.2	271.4	271.0	271.8	273.4	274.6	274.6
177.5°	272.7	272.7	272.7	272.7	272.3	271.7	271.5	272.1	273.3	274.2	274.0
180°	272.7	272.7	272.7	272.7	272.7	272.7	272.7	272.7	272.7	272.7	272.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	364.9	364.9
2.5°	389.6	387.2
5°	501.0	503.4
7.5°	674.7	673.5
10°	839.0	849.5
12.5°	958.6	961.0
15°	1031.4	1036.0
17.5°	1059.6	1060.7
20°	1060.7	1058.3
22.5°	1047.8	1045.4
25°	1032.6	1031.4
27.5°	1018.4	1019.6
30°	1012.6	1016.1
32.5°	1012.6	1018.4
35°	1015.0	1020.8
37.5°	1013.7	1020.8
40°	1009.1	1017.3
42.5°	996.2	1002.0
45°	976.3	983.3
47.5°	950.4	955.1
50°	917.6	922.3
52.5°	876.5	877.7
55°	827.2	831.9
57.5°	774.4	775.6
60°	715.7	719.3
62.5°	653.6	653.6
65°	587.9	590.2
67.5°	519.8	525.7
70°	450.6	451.7
72.5°	382.6	382.6
75°	312.1	313.3
77.5°	245.3	245.3
80°	181.9	183.0
82.5°	125.6	127.9
85°	78.6	78.6
87.5°	36.4	32.9
90°	6.9	6.9
92.5°	27.9	22.3
95°	97.1	80.4
97.5°	232.7	200.8
100°	335.2	297.2
102.5°	436.1	403.6
105°	564.8	547.3
107.5°	649.0	653.2
110°	681.1	699.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	684.0	712.0
115°	665.8	704.6
117.5°	627.4	670.4
120°	596.4	638.2
122.5°	566.3	607.5
125°	523.1	561.1
127.5°	484.4	516.5
130°	461.7	491.2
132.5°	440.9	467.4
135°	412.6	435.4
137.5°	389.7	408.5
140°	374.2	391.7
142.5°	361.2	376.3
145°	341.9	353.2
147.5°	327.0	336.4
150°	317.6	325.3
152.5°	309.6	315.3
155°	300.4	304.2
157.5°	293.1	295.8
160°	288.8	290.3
162.5°	285.9	287.4
165°	281.8	283.4
167.5°	278.8	279.5
170°	278.0	278.0
172.5°	275.8	275.3
175°	274.6	274.6
177.5°	273.4	272.7
180°	272.7	272.7



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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	6.21	7.24	7.05	8.11	9.20	19.35	20.38	20.19	21.25	22.34
	3H	6.93	7.85	7.78	8.73	9.85	21.19	22.11	22.04	22.99	24.11
	4H	7.23	8.11	8.11	9.00	10.13	21.83	22.70	22.70	23.59	24.72
	6H	7.49	8.30	8.38	9.20	10.34	22.26	23.06	23.14	23.96	25.10
	8H	7.57	8.34	8.46	9.25	10.39	22.38	23.15	23.27	24.06	25.20
	12H	7.59	8.32	8.49	9.23	10.40	22.44	23.18	23.34	24.08	25.25
4H	2H	13.42	14.30	14.30	15.18	16.31	19.65	20.52	20.52	21.41	22.54
	3H	15.01	15.74	15.89	16.66	17.80	21.69	22.42	22.58	23.34	24.49
	4H	15.11	15.78	16.01	16.69	17.86	22.46	23.13	23.36	24.04	25.21
	6H	15.13	15.71	16.04	16.65	17.82	22.99	23.57	23.91	24.51	25.68
	8H	15.11	15.65	16.03	16.59	17.77	23.15	23.69	24.07	24.63	25.81
	12H	15.08	15.57	16.01	16.52	17.71	23.25	23.74	24.18	24.69	25.88
8H	4H	16.56	17.10	17.48	18.03	19.22	22.53	23.07	23.45	24.01	25.19
	6H	16.81	17.26	17.75	18.23	19.42	23.16	23.61	24.10	24.58	25.77
	8H	16.83	17.23	17.78	18.19	19.40	23.37	23.77	24.32	24.73	25.94
	12H	16.81	17.16	17.76	18.12	19.37	23.51	23.87	24.47	24.82	26.08
12H	4H	16.71	17.20	17.64	18.15	19.34	22.49	22.98	23.43	23.93	25.13
	6H	17.07	17.47	18.02	18.43	19.63	23.14	23.54	24.10	24.51	25.71
	8H	17.14	17.49	18.10	18.45	19.71	23.37	23.72	24.33	24.68	25.93