

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: P936870

Luminaire Tested: SQ4-FB-050U-100D-935-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936870
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-935-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

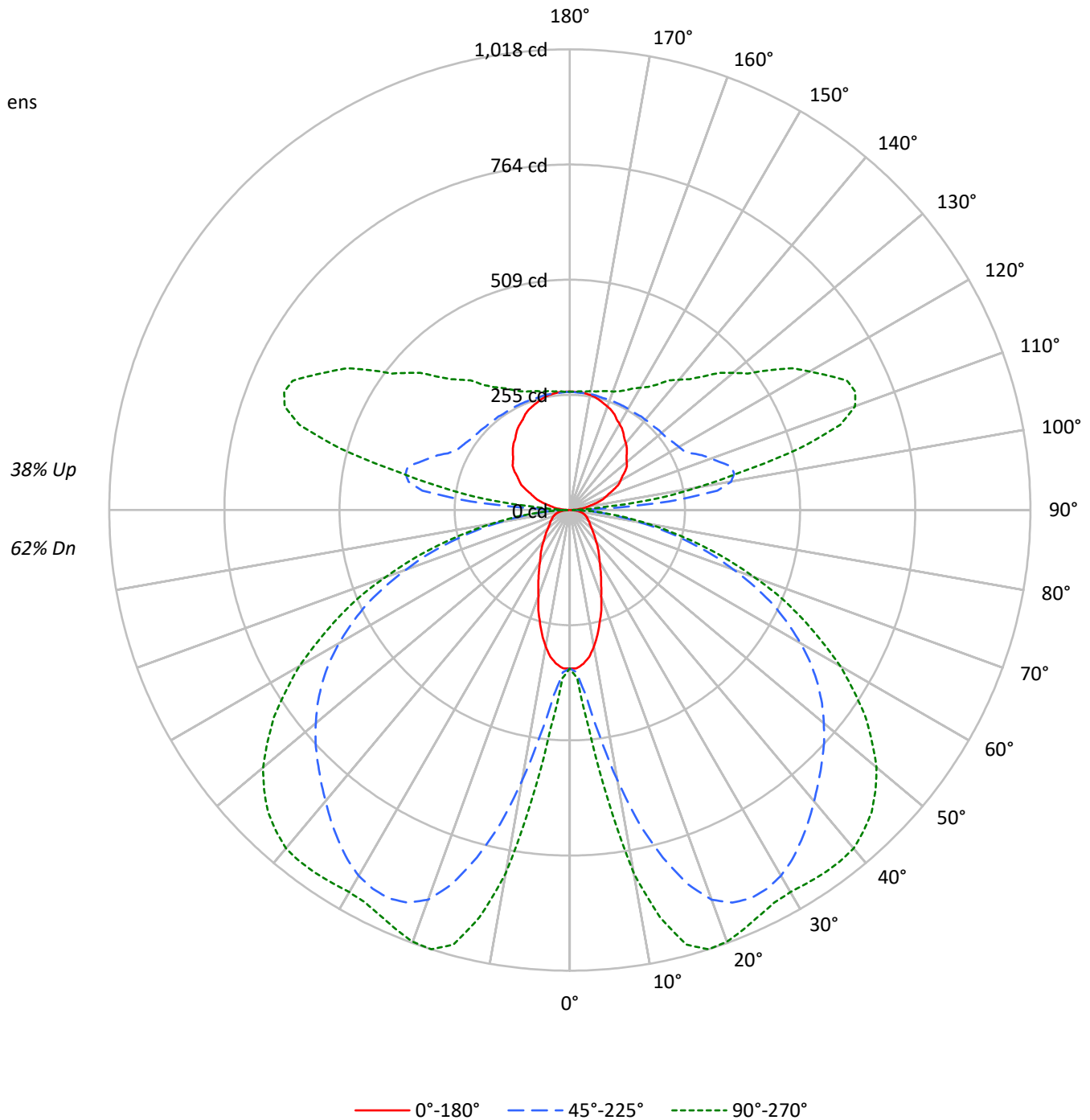
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4405.6 lumens
Efficiency: N/A
Efficacy: 97.5 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: 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	50	30	10	0
RCR																					
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3249	3249	3249
5°	3170	3752	4367
10°	2872	5465	7239
15°	2438	7135	8741
20°	1983	8263	8909
25°	1652	8639	8729
30°	1391	8688	8711
35°	1228	8537	8938
40°	1069	8342	9170
45°	965	8197	9206
50°	883	8066	9054
55°	843	7876	8652
60°	861	7521	8018
65°	892	6984	7147
70°	942	6078	6038
75°	1033	4944	4713
80°	1105	3415	3175
85°	927	1804	1625

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9206 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.3	1.0
10°-20°	200.7	4.6
20°-30°	351.1	8.0
30°-40°	452.0	10.3
40°-50°	504.8	11.5
50°-60°	483.5	11.0
60°-70°	383.2	8.7
70°-80°	225.3	5.1
80°-90°	63.6	1.4
90°-100°	127.5	2.9
100°-110°	335.3	7.6
110°-120°	347.7	7.9
120°-130°	278.9	6.3
130°-140°	218.8	5.0
140°-150°	168.0	3.8
150°-160°	121.0	2.7
160°-170°	74.0	1.7
170°-180°	25.0	0.6
0°-30°	597.1	13.6
0°-40°	1049.1	23.8
0°-60°	2037.4	46.2
0°-90°	2709.5	61.5
90°-120°	810.5	18.4
90°-150°	1476.2	33.5
90°-180°	1696.0	38.5
0°-180°	4405.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	350	350	350	350	350	
5°	341	366	412	466	483	31
15°	256	472	795	964	994	71
25°	163	535	947	988	990	75
35°	110	511	892	942	980	69
45°	75	408	788	903	943	58
55°	54	259	669	777	798	49
65°	43	137	496	558	566	42
75°	32	84	272	300	301	33
85°	11	26	68	74	75	12
90°	2	5	13	7	7	2
95°	17	66	220	113	77	19
105°	60	92	371	563	525	64
115°	107	130	297	592	676	106
125°	149	167	270	456	538	133
135°	178	196	262	368	418	138
145°	206	220	258	314	339	129
155°	233	240	258	284	292	107
165°	252	255	258	268	272	71
175°	262	262	260	263	263	25
180°	262	262	262	262	262	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1
2.5°	350.1	350.1	352.4	353.5	355.7	356.9	359.1	361.3	368.1	369.3	371.5
5°	341.1	345.7	360.2	365.8	381.6	403.0	412.0	426.7	457.1	466.0	471.7
7.5°	327.6	337.7	373.8	382.8	422.2	478.5	502.1	533.6	582.0	605.7	624.8
10°	306.2	327.6	391.7	413.1	477.3	562.9	606.8	650.7	723.9	756.5	768.9
12.5°	282.6	317.5	410.9	440.1	532.5	657.5	710.4	758.8	842.1	886.0	892.7
15°	255.5	302.8	428.9	471.7	591.0	736.3	794.8	854.5	932.2	963.7	971.5
17.5°	231.9	291.6	445.8	490.8	636.1	807.2	866.8	916.4	979.5	1000.8	1006.5
20°	202.6	273.6	457.1	515.6	683.4	859.0	916.4	954.7	997.4	1011.0	1013.2
22.5°	181.2	254.4	463.8	524.6	714.8	890.5	938.9	969.3	998.5	1003.1	1004.2
25°	163.2	233.0	462.7	534.7	741.9	909.6	946.7	969.3	986.2	988.4	988.4
27.5°	146.4	209.4	458.2	537.0	762.1	914.1	943.4	959.2	967.0	971.5	971.5
30°	131.7	186.8	447.0	532.5	771.1	909.6	933.3	941.1	949.0	955.8	959.2
32.5°	120.5	165.5	430.1	523.5	772.3	898.3	915.2	919.7	931.0	946.7	952.5
35°	110.3	144.1	410.9	511.1	765.5	880.4	891.6	896.1	918.6	942.3	950.2
37.5°	100.2	128.3	386.1	489.7	755.4	859.0	866.8	874.7	909.6	937.8	946.7
40°	90.1	114.8	356.9	466.0	739.6	833.1	839.8	852.3	898.3	931.0	940.0
42.5°	82.2	103.6	325.4	441.3	719.3	803.8	813.9	832.0	884.9	919.7	929.9
45°	75.4	92.3	291.6	407.5	693.4	773.4	788.0	812.8	869.1	902.9	911.9
47.5°	68.7	84.4	256.7	372.7	665.3	743.0	762.1	790.3	847.7	880.4	888.2
50°	63.0	76.6	221.8	335.5	634.9	710.4	732.9	762.1	820.7	851.1	861.2
52.5°	58.5	69.8	189.1	298.4	600.1	676.6	702.5	732.9	788.0	817.3	824.1
55°	54.0	64.2	161.0	258.9	564.0	640.5	668.7	698.0	752.1	776.8	781.3
57.5°	51.8	59.6	137.3	221.8	525.8	600.1	631.6	658.6	709.2	728.4	732.9
60°	48.4	56.3	119.4	190.3	484.1	561.7	588.8	615.8	658.6	674.4	677.7
62.5°	45.1	54.0	105.8	159.8	441.3	516.7	543.7	568.5	604.6	615.8	620.3
65°	42.8	51.8	95.7	137.3	397.4	469.5	496.5	517.8	547.2	558.4	560.6
67.5°	40.6	49.5	87.8	118.2	353.5	422.2	442.4	462.7	485.2	496.5	497.6
70°	37.1	47.3	81.0	104.7	308.4	368.1	385.0	406.4	424.4	430.1	433.4
72.5°	34.9	43.9	76.6	94.6	262.3	316.3	332.1	344.5	360.2	365.8	365.8
75°	31.5	39.4	72.1	84.4	215.0	258.9	272.5	284.8	297.2	299.5	296.1
77.5°	28.1	34.9	61.9	70.9	167.8	204.9	216.2	222.9	233.0	235.3	236.4
80°	23.6	30.4	48.4	55.1	121.6	150.9	158.7	164.4	173.4	173.4	175.6
82.5°	18.0	23.6	34.9	39.4	82.2	103.6	110.3	113.7	119.4	119.4	119.4
85°	11.2	14.7	22.5	25.9	49.5	63.0	67.6	68.7	73.2	74.3	74.3
87.5°	5.6	7.8	14.7	15.8	25.9	32.6	32.6	34.9	34.9	33.7	32.6
90°	1.8	3.2	4.6	4.9	7.8	11.5	13.4	11.8	8.9	6.6	6.6
92.5°	7.0	18.9	30.9	33.9	47.6	65.9	75.1	65.9	47.3	33.4	32.0
95°	16.9	38.7	60.6	66.0	117.2	185.5	219.6	196.0	148.7	113.2	109.2
97.5°	29.1	48.4	67.6	72.5	157.9	271.8	328.7	313.8	283.9	261.5	253.8
100°	38.6	56.1	73.6	78.0	172.7	299.1	362.3	363.4	365.6	367.2	358.1
102.5°	46.7	63.0	79.3	83.4	179.5	307.7	371.7	390.8	428.9	457.4	449.6
105°	60.4	74.2	88.0	91.5	184.5	308.7	370.7	413.4	498.8	562.8	558.7
107.5°	74.5	87.3	100.2	103.4	185.5	295.0	349.7	409.2	528.3	617.6	618.6
110°	83.9	95.5	107.2	110.1	184.1	282.8	332.1	398.7	531.8	631.7	636.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	93.2	104.3	115.4	118.2	184.1	272.1	316.1	384.3	520.5	622.7	629.5
115°	107.3	117.5	127.7	130.3	185.8	259.9	296.9	362.5	493.8	592.3	601.6
117.5°	121.2	130.4	139.7	142.0	189.3	252.3	283.8	343.0	461.4	550.3	560.6
120°	129.2	138.0	146.7	148.9	192.1	249.7	278.5	332.6	440.9	522.1	532.2
122.5°	137.2	146.0	154.8	157.0	196.1	248.4	274.4	323.2	420.7	493.8	503.7
125°	149.3	157.3	165.3	167.3	201.6	247.3	270.1	311.5	394.3	456.4	465.5
127.5°	159.1	167.2	175.3	177.4	207.0	246.7	266.4	301.9	373.0	426.3	434.0
130°	164.4	173.1	181.8	184.0	211.0	247.0	265.0	296.7	360.0	407.4	414.5
132.5°	169.8	178.6	187.3	189.5	214.3	247.3	263.8	292.1	348.7	391.2	397.6
135°	177.9	185.8	193.8	195.8	217.8	247.0	261.6	285.3	332.8	368.4	373.9
137.5°	186.2	194.0	201.9	203.9	223.1	248.5	261.3	281.3	321.5	351.5	356.1
140°	193.0	200.2	207.5	209.3	226.2	248.8	260.0	277.4	312.1	338.1	342.2
142.5°	198.3	205.0	211.6	213.3	228.9	249.6	260.0	275.3	305.7	328.5	332.1
145°	206.4	212.1	218.0	219.5	232.4	249.7	258.3	270.8	295.6	314.3	317.0
147.5°	214.4	220.2	225.8	227.2	237.6	251.4	258.3	268.1	287.7	302.4	304.7
150°	219.6	224.8	230.0	231.2	240.3	252.3	258.3	266.6	283.1	295.6	297.4
152.5°	225.1	229.0	232.9	233.9	242.1	252.9	258.3	265.4	279.5	290.1	291.5
155°	233.2	236.1	239.0	239.7	245.9	254.2	258.3	263.9	275.2	283.6	284.6
157.5°	239.2	242.0	244.8	245.5	249.7	255.4	258.3	262.7	271.4	278.0	278.7
160°	243.2	245.4	247.6	248.1	251.5	256.0	258.3	262.1	269.6	275.2	275.5
162.5°	247.3	248.9	250.5	250.9	253.4	256.7	258.3	261.5	267.8	272.6	272.9
165°	251.7	253.1	254.7	255.0	256.1	257.6	258.3	260.5	265.1	268.5	268.8
167.5°	255.7	256.4	257.0	257.2	258.2	259.4	260.0	261.6	264.5	266.8	266.9
170°	258.3	259.0	259.7	259.9	259.9	260.0	260.0	261.6	264.5	266.8	266.8
172.5°	259.7	259.9	260.0	260.0	260.0	260.0	260.0	261.2	263.5	265.3	265.1
175°	261.6	261.6	261.6	261.6	261.1	260.4	260.0	260.8	262.3	263.4	263.4
177.5°	261.6	261.6	261.6	261.6	261.2	260.7	260.5	261.1	262.2	263.1	262.9
180°	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	350.1	350.1
2.5°	373.8	371.5
5°	480.7	483.0
7.5°	647.3	646.2
10°	805.0	815.0
12.5°	919.7	922.0
15°	989.6	994.0
17.5°	1016.6	1017.7
20°	1017.7	1015.4
22.5°	1005.4	1003.1
25°	990.7	989.6
27.5°	977.2	978.3
30°	971.5	974.9
32.5°	971.5	977.2
35°	973.8	979.5
37.5°	972.6	979.5
40°	968.2	976.1
42.5°	955.8	961.4
45°	936.7	943.4
47.5°	911.9	916.4
50°	880.4	884.9
52.5°	840.9	842.1
55°	793.6	798.2
57.5°	743.0	744.1
60°	686.7	690.1
62.5°	627.1	627.1
65°	564.0	566.2
67.5°	498.8	504.4
70°	432.3	433.4
72.5°	367.0	367.0
75°	299.5	300.6
77.5°	235.3	235.3
80°	174.5	175.6
82.5°	120.5	122.7
85°	75.4	75.4
87.5°	34.9	31.5
90°	6.6	6.6
92.5°	26.8	21.4
95°	93.1	77.1
97.5°	223.2	192.6
100°	321.6	285.2
102.5°	418.4	387.2
105°	541.9	525.1
107.5°	622.6	626.7
110°	653.5	670.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	656.3	683.1
115°	638.8	676.1
117.5°	601.9	643.3
120°	572.2	612.3
122.5°	543.3	582.9
125°	501.9	538.4
127.5°	464.8	495.5
130°	443.0	471.3
132.5°	423.0	448.5
135°	395.8	417.7
137.5°	373.9	391.9
140°	359.0	375.8
142.5°	346.6	361.1
145°	328.0	338.9
147.5°	313.7	322.7
150°	304.8	312.1
152.5°	297.0	302.5
155°	288.2	291.9
157.5°	281.2	283.8
160°	277.1	278.5
162.5°	274.3	275.7
165°	270.3	271.9
167.5°	267.5	268.1
170°	266.8	266.8
172.5°	264.6	264.1
175°	263.4	263.4
177.5°	262.3	261.6
180°	261.6	261.6



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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	6.07	7.09	6.91	7.96	9.06	19.21	20.23	20.05	21.10	22.20
	3H	6.78	7.71	7.64	8.59	9.71	21.04	21.97	21.90	22.85	23.97
	4H	7.09	7.96	7.96	8.85	9.98	21.69	22.56	22.56	23.45	24.58
	6H	7.35	8.16	8.23	9.05	10.20	22.11	22.92	23.00	23.81	24.96
	8H	7.42	8.19	8.31	9.11	10.25	22.23	23.00	23.12	23.92	25.06
	12H	7.45	8.18	8.34	9.09	10.26	22.30	23.03	23.20	23.94	25.11
4H	2H	13.28	14.15	14.15	15.04	16.17	19.50	20.38	20.38	21.26	22.39
	3H	14.86	15.60	15.75	16.51	17.66	21.55	22.28	22.44	23.20	24.35
	4H	14.97	15.63	15.87	16.55	17.72	22.31	22.98	23.21	23.90	25.07
	6H	14.99	15.57	15.90	16.51	17.68	22.85	23.43	23.76	24.37	25.54
	8H	14.97	15.51	15.89	16.44	17.63	23.01	23.55	23.93	24.48	25.67
	12H	14.93	15.42	15.87	16.37	17.57	23.10	23.59	24.04	24.54	25.74
8H	4H	16.41	16.96	17.33	17.89	19.08	22.39	22.93	23.31	23.86	25.05
	6H	16.66	17.12	17.61	18.09	19.28	23.01	23.46	23.96	24.44	25.62
	8H	16.69	17.08	17.64	18.05	19.25	23.23	23.63	24.18	24.59	25.79
	12H	16.66	17.01	17.62	17.97	19.22	23.37	23.72	24.33	24.68	25.93
12H	4H	16.56	17.05	17.50	18.00	19.20	22.35	22.84	23.29	23.79	24.98
	6H	16.92	17.32	17.88	18.29	19.49	23.00	23.40	23.95	24.36	25.57
	8H	17.00	17.35	17.96	18.31	19.56	23.23	23.58	24.19	24.54	25.79