

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: P936831

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-4-2700K

Issue Date: 12/17/2024

**Test Information**

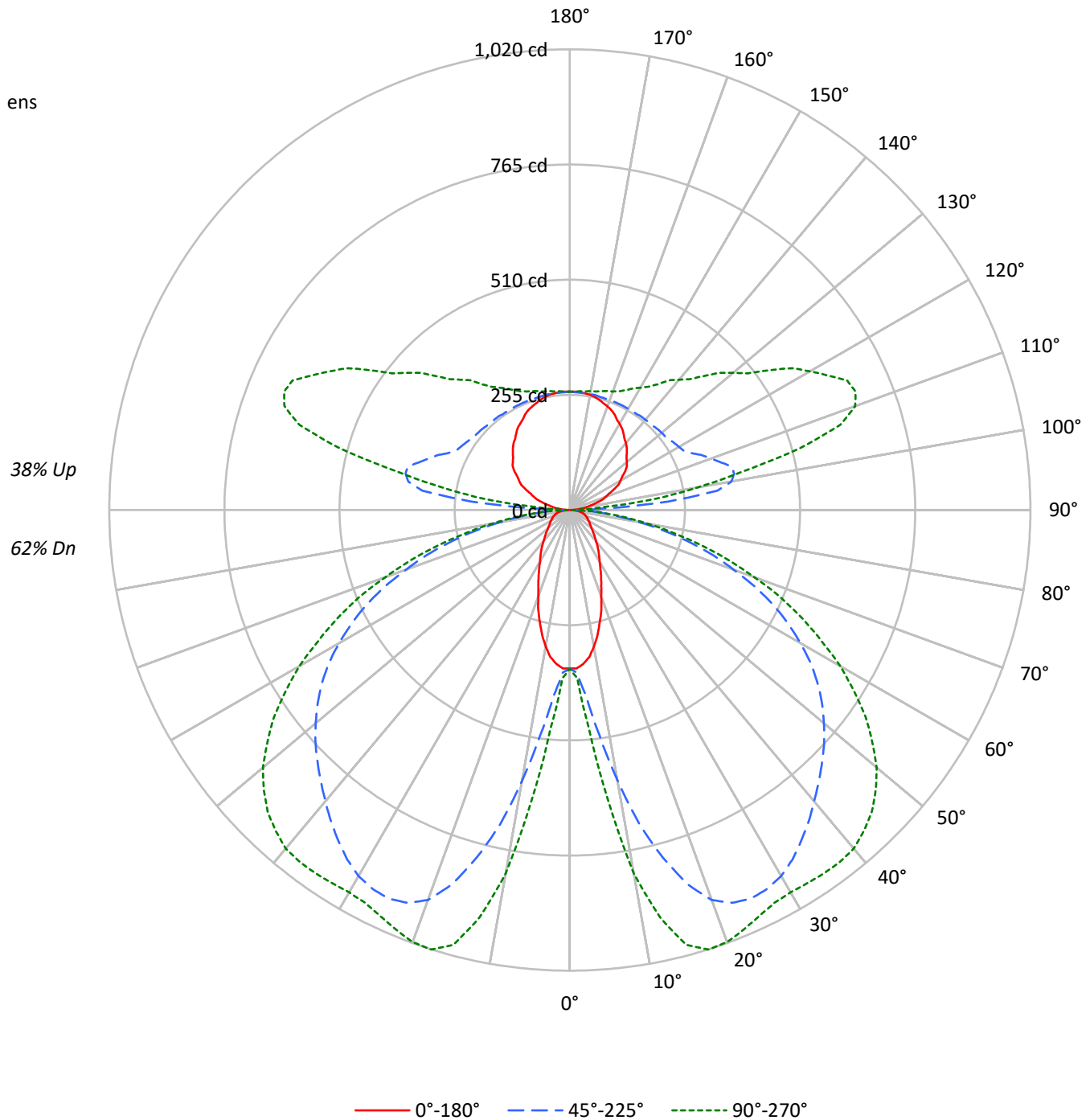
Test Method: LM-79-2019  
Report Number: P936831  
REPORT IS A COMBINATION OF REPORTS P933471 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-4-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4416.7 lumens  
Efficiency: N/A  
Efficacy: 97.7 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<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	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°	3257	3257	3257
5°	3179	3762	4378
10°	2880	5479	7258
15°	2445	7153	8763
20°	1987	8284	8931
25°	1657	8661	8751
30°	1394	8710	8734
35°	1231	8558	8960
40°	1071	8363	9193
45°	968	8218	9229
50°	886	8086	9076
55°	847	7897	8673
60°	863	7540	8038
65°	894	7001	7166
70°	944	6094	6053
75°	1036	4957	4724
80°	1109	3424	3182
85°	936	1807	1629

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9229 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.4	1.0
10°-20°	201.2	4.6
20°-30°	352.0	8.0
30°-40°	453.1	10.3
40°-50°	506.1	11.5
50°-60°	484.7	11.0
60°-70°	384.1	8.7
70°-80°	225.9	5.1
80°-90°	63.8	1.4
90°-100°	127.8	2.9
100°-110°	336.1	7.6
110°-120°	348.5	7.9
120°-130°	279.6	6.3
130°-140°	219.4	5.0
140°-150°	168.4	3.8
150°-160°	121.3	2.7
160°-170°	74.2	1.7
170°-180°	25.1	0.6
0°-30°	598.6	13.6
0°-40°	1051.7	23.8
0°-60°	2042.5	46.2
0°-90°	2716.3	61.5
90°-120°	812.5	18.4
90°-150°	1479.9	33.5
90°-180°	1700.0	38.5
0°-180°	4416.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	351	351	351	351	351	
5°	342	367	413	467	484	32
15°	256	473	797	966	996	71
25°	164	536	949	991	992	75
35°	111	512	894	945	982	69
45°	76	408	790	905	946	58
55°	54	260	670	779	800	49
65°	43	138	498	560	568	43
75°	32	85	273	300	301	33
85°	11	26	68	74	76	12
90°	2	5	13	7	7	2
95°	17	66	220	114	77	19
105°	61	92	372	564	526	64
115°	108	131	298	594	678	106
125°	150	168	271	458	540	133
135°	178	196	262	369	419	138
145°	207	220	259	315	340	130
155°	234	240	259	284	293	107
165°	252	256	259	269	273	71
175°	262	262	261	264	264	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°	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
2.5°	351.0	351.0	353.3	354.4	356.6	357.8	360.0	362.2	369.1	370.2	372.4
5°	342.0	346.5	361.1	366.8	382.6	404.0	413.1	427.7	458.2	467.2	472.8
7.5°	328.4	338.6	374.7	383.8	423.2	479.7	503.3	534.9	583.5	607.2	626.3
10°	307.0	328.4	392.7	414.2	478.5	564.3	608.3	652.3	725.7	758.4	770.9
12.5°	283.3	318.2	411.9	441.2	533.8	659.1	712.2	760.7	844.2	888.2	895.0
15°	256.2	303.6	430.0	472.8	592.5	738.1	796.8	856.6	934.5	966.1	974.0
17.5°	232.5	292.3	446.9	492.1	637.7	809.2	869.0	918.7	981.9	1003.3	1009.0
20°	203.1	274.3	458.2	516.9	685.1	861.1	918.7	957.1	999.9	1013.5	1015.7
22.5°	181.7	255.0	465.0	525.9	716.6	892.7	941.2	971.7	1001.0	1005.6	1006.7
25°	163.7	233.6	463.9	536.1	743.8	911.9	949.1	971.7	988.7	990.9	990.9
27.5°	146.7	209.9	459.4	538.4	764.0	916.4	945.8	961.6	969.4	974.0	974.0
30°	132.0	187.3	448.1	533.8	773.1	911.9	935.6	943.5	951.4	958.2	961.6
32.5°	120.8	165.9	431.2	524.8	774.2	900.6	917.5	922.0	933.3	949.1	954.8
35°	110.6	144.4	411.9	512.4	767.4	882.6	893.8	898.4	920.9	944.7	952.5
37.5°	100.4	128.6	387.1	491.0	757.3	861.1	869.0	876.9	911.9	940.1	949.1
40°	90.3	115.1	357.8	467.2	741.5	835.2	841.9	854.4	900.6	933.3	942.4
42.5°	82.4	103.9	326.2	442.4	721.1	805.8	815.9	834.1	887.1	922.0	932.2
45°	75.6	92.5	292.3	408.5	695.2	775.4	790.0	814.8	871.3	905.1	914.2
47.5°	68.8	84.6	257.3	373.6	667.0	744.9	764.0	792.3	849.9	882.6	890.4
50°	63.2	76.8	222.3	336.4	636.5	712.2	734.7	764.0	822.8	853.2	863.4
52.5°	58.7	70.0	189.6	299.1	601.6	678.3	704.2	734.7	790.0	819.4	826.1
55°	54.2	64.3	161.4	259.6	565.4	642.1	670.4	699.7	753.9	778.7	783.2
57.5°	51.9	59.8	137.7	222.3	527.1	601.6	633.2	660.2	711.0	730.2	734.7
60°	48.5	56.5	119.7	190.7	485.3	563.1	590.3	617.4	660.2	676.0	679.4
62.5°	45.2	54.2	106.1	160.2	442.4	518.0	545.1	570.0	606.1	617.4	621.9
65°	42.9	51.9	95.9	137.7	398.4	470.6	497.7	519.1	548.5	559.8	562.0
67.5°	40.7	49.6	88.1	118.5	354.4	423.2	443.5	463.9	486.4	497.7	498.8
70°	37.2	47.4	81.2	105.0	309.2	369.1	386.0	407.4	425.4	431.2	434.5
72.5°	35.0	44.0	76.8	94.8	263.0	317.1	332.9	345.3	361.1	366.8	366.8
75°	31.6	39.5	72.3	84.6	215.6	259.6	273.2	285.5	297.9	300.2	296.8
77.5°	28.2	35.0	62.1	71.1	168.2	205.4	216.7	223.4	233.6	235.9	237.0
80°	23.7	30.5	48.5	55.3	121.9	151.3	159.1	164.8	173.8	173.8	176.0
82.5°	18.0	23.7	35.0	39.5	82.4	103.9	110.6	114.0	119.7	119.7	119.7
85°	11.3	14.7	22.5	26.0	49.6	63.2	67.7	68.8	73.4	74.5	74.5
87.5°	5.6	7.9	14.7	15.8	26.0	32.7	32.7	35.0	35.0	33.8	32.7
90°	1.8	3.2	4.6	5.0	7.8	11.5	13.4	11.9	8.9	6.7	6.7
92.5°	7.0	19.0	31.0	34.0	47.7	66.1	75.3	66.0	47.4	33.5	32.1
95°	16.9	38.8	60.7	66.2	117.5	185.9	220.2	196.4	149.0	113.5	109.5
97.5°	29.2	48.5	67.8	72.7	158.3	272.5	329.5	314.6	284.6	262.1	254.4
100°	38.7	56.2	73.8	78.2	173.1	299.8	363.2	364.3	366.5	368.1	359.0
102.5°	46.8	63.2	79.5	83.6	180.0	308.4	372.7	391.8	430.0	458.6	450.7
105°	60.6	74.4	88.2	91.7	185.0	309.5	371.6	414.4	500.0	564.2	560.1
107.5°	74.7	87.5	100.4	103.7	185.9	295.7	350.5	410.2	529.6	619.2	620.2
110°	84.1	95.7	107.4	110.4	184.6	283.5	332.9	399.6	533.1	633.3	637.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	93.4	104.5	115.6	118.5	184.6	272.8	316.9	385.2	521.8	624.3	631.0
115°	107.5	117.8	128.0	130.6	186.3	260.5	297.7	363.4	495.1	593.8	603.1
117.5°	121.5	130.8	140.1	142.4	189.8	252.9	284.5	343.9	462.6	551.7	562.0
120°	129.6	138.4	147.1	149.3	192.6	250.3	279.2	333.5	442.0	523.4	533.5
122.5°	137.5	146.4	155.2	157.4	196.6	249.0	275.1	324.0	421.8	495.1	505.0
125°	149.6	157.7	165.7	167.8	202.1	247.9	270.8	312.3	395.3	457.6	466.7
127.5°	159.5	167.7	175.8	177.8	207.6	247.3	267.1	302.7	373.9	427.4	435.1
130°	164.8	173.6	182.3	184.5	211.6	247.6	265.6	297.4	360.9	408.4	415.5
132.5°	170.2	179.0	187.7	190.0	214.8	247.9	264.4	292.8	349.6	392.2	398.6
135°	178.3	186.3	194.3	196.3	218.3	247.6	262.3	286.0	333.6	369.3	374.8
137.5°	186.6	194.5	202.4	204.4	223.6	249.1	262.0	282.0	322.3	352.4	356.9
140°	193.5	200.7	208.1	209.9	226.8	249.4	260.7	278.1	312.9	338.9	343.1
142.5°	198.8	205.5	212.2	213.9	229.5	250.3	260.7	276.0	306.5	329.4	332.9
145°	206.9	212.7	218.6	220.0	233.0	250.3	259.0	271.4	296.4	315.1	317.8
147.5°	215.0	220.7	226.3	227.8	238.2	252.1	259.0	268.8	288.4	303.1	305.4
150°	220.2	225.3	230.5	231.8	240.9	252.9	259.0	267.3	283.8	296.3	298.2
152.5°	225.7	229.6	233.5	234.5	242.7	253.5	259.0	266.1	280.2	290.8	292.2
155°	233.8	236.7	239.6	240.3	246.5	254.8	259.0	264.6	275.9	284.3	285.3
157.5°	239.8	242.6	245.4	246.1	250.3	256.1	259.0	263.3	272.1	278.7	279.4
160°	243.9	246.0	248.2	248.7	252.1	256.7	259.0	262.7	270.2	275.9	276.2
162.5°	247.9	249.5	251.1	251.5	254.0	257.3	259.0	262.1	268.5	273.2	273.6
165°	252.3	253.8	255.3	255.6	256.8	258.2	259.0	261.2	265.7	269.1	269.5
167.5°	256.3	257.0	257.7	257.9	258.8	260.1	260.7	262.2	265.2	267.4	267.6
170°	259.0	259.7	260.3	260.5	260.6	260.7	260.7	262.2	265.2	267.4	267.4
172.5°	260.3	260.5	260.7	260.7	260.7	260.7	260.7	261.9	264.2	266.0	265.8
175°	262.3	262.3	262.3	262.3	261.8	261.0	260.7	261.4	263.0	264.1	264.1
177.5°	262.3	262.3	262.3	262.3	261.9	261.4	261.1	261.7	262.9	263.8	263.6
180°	262.3	262.3	262.3	262.3	262.3	262.3	262.3	262.3	262.3	262.3	262.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	351.0	351.0
2.5°	374.7	372.4
5°	481.9	484.2
7.5°	649.0	647.8
10°	807.0	817.1
12.5°	922.0	924.3
15°	992.1	996.5
17.5°	1019.1	1020.3
20°	1020.3	1017.9
22.5°	1007.9	1005.6
25°	993.2	992.1
27.5°	979.6	980.7
30°	974.0	977.4
32.5°	974.0	979.6
35°	976.3	981.9
37.5°	975.1	981.9
40°	970.6	978.5
42.5°	958.2	963.8
45°	939.0	945.8
47.5°	914.2	918.7
50°	882.6	887.1
52.5°	843.0	844.2
55°	795.6	800.1
57.5°	744.9	746.0
60°	688.4	691.8
62.5°	628.6	628.6
65°	565.4	567.7
67.5°	500.0	505.6
70°	433.4	434.5
72.5°	368.0	368.0
75°	300.2	301.3
77.5°	235.9	235.9
80°	174.9	176.0
82.5°	120.8	123.0
85°	75.6	75.6
87.5°	35.0	31.6
90°	6.7	6.7
92.5°	26.8	21.4
95°	93.4	77.3
97.5°	223.8	193.1
100°	322.4	285.9
102.5°	419.5	388.2
105°	543.2	526.4
107.5°	624.2	628.3
110°	655.1	672.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	657.9	684.8
115°	640.4	677.8
117.5°	603.4	644.9
120°	573.6	613.9
122.5°	544.7	584.3
125°	503.2	539.7
127.5°	465.9	496.8
130°	444.1	472.5
132.5°	424.1	449.6
135°	396.8	418.8
137.5°	374.9	392.9
140°	359.9	376.8
142.5°	347.5	362.0
145°	328.8	339.8
147.5°	314.5	323.5
150°	305.5	312.9
152.5°	297.7	303.3
155°	289.0	292.6
157.5°	281.9	284.5
160°	277.8	279.2
162.5°	275.0	276.4
165°	271.0	272.6
167.5°	268.2	268.8
170°	267.4	267.4
172.5°	265.3	264.8
175°	264.1	264.1
177.5°	263.0	262.3
180°	262.3	262.3



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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	6.08	7.10	6.92	7.97	9.07	19.22	20.24	20.06	21.11	22.21
	3H	6.79	7.72	7.65	8.60	9.72	21.05	21.98	21.91	22.86	23.98
	4H	7.10	7.97	7.97	8.86	9.99	21.69	22.57	22.57	23.46	24.59
	6H	7.36	8.17	8.24	9.06	10.21	22.12	22.93	23.01	23.82	24.97
	8H	7.43	8.20	8.33	9.12	10.26	22.24	23.01	23.13	23.92	25.07
	12H	7.46	8.19	8.36	9.10	10.27	22.31	23.04	23.21	23.95	25.12
4H	2H	13.29	14.16	14.16	15.05	16.18	19.51	20.38	20.39	21.27	22.40
	3H	14.87	15.60	15.76	16.52	17.67	21.56	22.29	22.44	23.21	24.35
	4H	14.97	15.64	15.87	16.56	17.73	22.32	22.99	23.22	23.91	25.08
	6H	15.00	15.58	15.91	16.51	17.69	22.86	23.44	23.77	24.38	25.55
	8H	14.98	15.52	15.89	16.45	17.64	23.02	23.56	23.93	24.49	25.68
	12H	14.94	15.43	15.88	16.38	17.58	23.11	23.60	24.05	24.55	25.74
8H	4H	16.42	16.97	17.34	17.90	19.09	22.40	22.94	23.31	23.87	25.06
	6H	16.67	17.12	17.62	18.10	19.28	23.02	23.47	23.97	24.45	25.63
	8H	16.69	17.09	17.65	18.06	19.26	23.24	23.63	24.19	24.60	25.80
	12H	16.67	17.02	17.63	17.98	19.23	23.38	23.73	24.34	24.69	25.94
12H	4H	16.57	17.06	17.51	18.01	19.21	22.36	22.85	23.30	23.80	24.99
	6H	16.93	17.33	17.88	18.30	19.50	23.01	23.41	23.96	24.37	25.57
	8H	17.01	17.36	17.97	18.32	19.57	23.24	23.59	24.20	24.55	25.80