

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: P936224

Luminaire Tested: SQ4-FB-025U-050D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

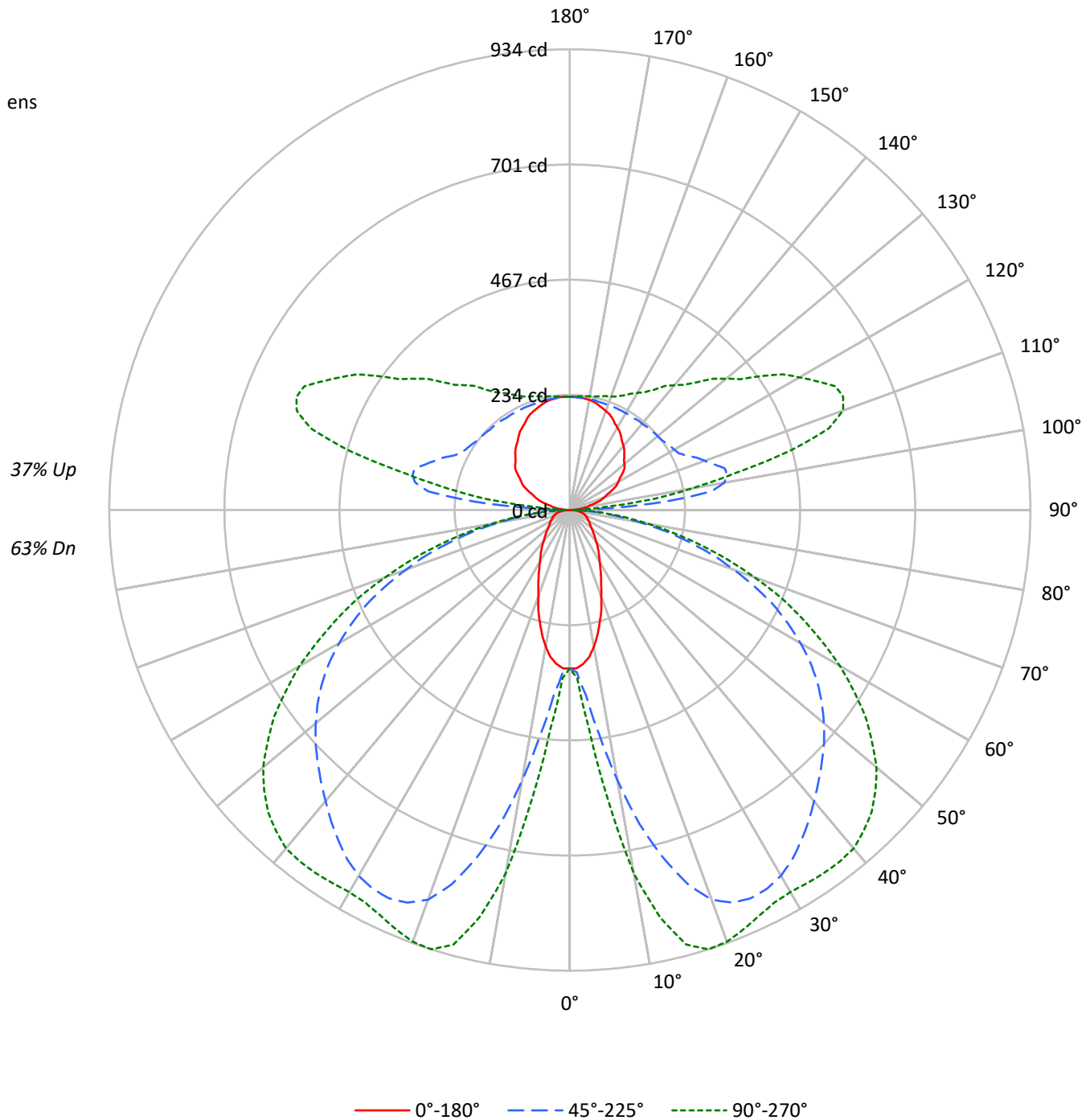
Test Method: LM-79-2019  
Report Number: P936224  
REPORT IS A COMBINATION OF REPORTS P933453 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-050D-927-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3975.6 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 44  
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				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	68	68	68	68	68	68	63
1	100	95	91	87	93	89	86	82	78	75	73	68	66	64	59	57	56	59	57	56	51
2	90	82	76	70	84	77	71	66	68	63	59	59	55	52	51	48	46	51	48	46	42
3	82	72	64	57	76	67	60	55	59	53	49	51	47	43	44	41	38	44	41	38	34
4	75	63	54	48	69	59	52	46	52	46	41	45	40	37	39	35	32	39	35	32	29
5	68	56	47	41	63	52	45	39	46	40	35	40	35	31	35	31	28	35	31	28	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	31	27	24	21
7	58	45	36	30	54	42	34	29	37	31	26	33	27	23	28	24	21	28	24	21	18
8	53	40	32	26	50	38	31	25	34	27	23	30	24	21	26	22	18	26	22	18	16
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	24	19	16	24	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15	22	18	15	13

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1490	1490	1490
5°	1456	1722	2003
10°	1320	2511	3321
15°	1123	3280	4010
20°	914	3801	4086
25°	762	3978	4004
30°	643	4003	3996
35°	568	3937	4099
40°	495	3850	4206
45°	448	3787	4223
50°	411	3730	4153
55°	394	3647	3969
60°	403	3487	3678
65°	420	3243	3279
70°	447	2828	2770
75°	497	2306	2161
80°	541	1599	1456
85°	480	849	745

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4223 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.5	1.0
10°-20°	184.1	4.6
20°-30°	322.1	8.1
30°-40°	414.6	10.4
40°-50°	463.1	11.6
50°-60°	443.6	11.2
60°-70°	351.5	8.8
70°-80°	206.7	5.2
80°-90°	58.3	1.5
90°-100°	112.0	2.8
100°-110°	294.5	7.4
110°-120°	305.4	7.7
120°-130°	245.0	6.2
130°-140°	192.2	4.8
140°-150°	147.5	3.7
150°-160°	106.2	2.7
160°-170°	65.0	1.6
170°-180°	22.0	0.6
0°-30°	547.8	13.8
0°-40°	962.4	24.2
0°-60°	1869.1	47.0
0°-90°	2485.7	62.5
90°-120°	711.9	17.9
90°-150°	1296.7	32.6
90°-180°	1490.0	37.5
0°-180°	3975.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	321	321	321	321	321	
5°	313	336	378	428	443	29
15°	234	433	729	884	912	65
25°	150	491	869	907	908	69
35°	101	469	818	864	898	63
45°	69	374	723	828	866	54
55°	50	238	614	713	732	45
65°	39	126	456	512	520	39
75°	29	78	250	275	276	30
85°	10	24	62	68	69	11
90°	2	4	12	6	6	2
95°	15	58	193	100	68	16
105°	53	80	326	494	461	56
115°	94	114	261	520	594	93
125°	131	147	237	401	473	116
135°	156	172	230	324	367	121
145°	181	193	227	276	298	114
155°	205	210	227	249	256	94
165°	221	224	227	236	239	62
175°	230	230	228	231	231	22
180°	230	230	230	230	230	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2
2.5°	321.2	321.2	323.2	324.3	326.3	327.4	329.5	331.6	337.7	338.7	340.8
5°	312.9	317.1	330.5	335.6	350.1	369.8	378.0	391.4	419.3	427.6	432.7
7.5°	300.5	309.8	342.9	351.1	387.3	438.9	460.6	489.6	533.9	555.6	573.2
10°	280.9	300.5	359.4	379.1	437.9	516.4	556.7	597.0	664.0	694.0	705.4
12.5°	259.3	291.2	377.0	403.8	488.5	603.1	651.7	696.1	772.5	812.8	819.0
15°	234.5	277.8	393.5	432.7	542.2	675.4	729.2	783.9	855.2	884.0	891.3
17.5°	212.8	267.5	409.0	450.3	583.5	740.5	795.3	840.7	898.5	918.1	923.3
20°	185.9	250.9	419.3	473.0	626.9	788.0	840.7	875.8	915.1	927.5	929.5
22.5°	166.2	233.4	425.5	481.2	655.8	817.0	861.3	889.3	916.1	920.2	921.2
25°	149.8	213.8	424.5	490.6	680.6	834.5	868.6	889.3	904.8	906.8	906.8
27.5°	134.3	192.1	420.3	492.6	699.2	838.6	865.5	880.0	887.2	891.3	891.3
30°	120.8	171.5	410.0	488.5	707.5	834.5	856.2	863.4	870.6	876.9	880.0
32.5°	110.5	151.8	394.5	480.2	708.5	824.1	839.7	843.8	854.1	868.6	873.7
35°	101.2	132.2	377.0	468.9	702.3	807.7	818.0	822.1	842.8	864.5	871.6
37.5°	91.9	117.7	354.3	449.3	693.0	788.0	795.3	802.5	834.5	860.3	868.6
40°	82.6	105.3	327.4	427.6	678.5	764.3	770.5	781.9	824.1	854.1	862.4
42.5°	75.4	95.0	298.5	404.9	660.0	737.4	746.7	763.2	811.8	843.8	853.1
45°	69.2	84.7	267.5	373.8	636.2	709.6	723.0	745.7	797.3	828.3	836.5
47.5°	63.0	77.5	235.5	341.9	610.4	681.7	699.2	725.0	777.7	807.7	814.9
50°	57.8	70.2	203.4	307.8	582.5	651.7	672.4	699.2	752.9	780.8	790.1
52.5°	53.7	64.1	173.5	273.7	550.5	620.7	644.5	672.4	723.0	749.8	756.0
55°	49.6	58.9	147.7	237.5	517.4	587.7	613.5	640.3	689.9	712.6	716.8
57.5°	47.5	54.7	126.0	203.4	482.3	550.5	579.4	604.2	650.6	668.2	672.4
60°	44.4	51.7	109.5	174.6	444.1	515.4	540.2	564.9	604.2	618.6	621.8
62.5°	41.3	49.6	97.1	146.7	404.9	474.1	498.8	521.6	554.6	564.9	569.1
65°	39.3	47.5	87.8	126.0	364.6	430.7	455.5	475.1	502.0	512.3	514.4
67.5°	37.2	45.4	80.5	108.4	324.3	387.3	405.9	424.5	445.1	455.5	456.5
70°	34.1	43.4	74.4	96.0	283.0	337.7	353.2	372.8	389.4	394.5	397.6
72.5°	32.0	40.3	70.2	86.8	240.6	290.2	304.7	316.0	330.5	335.6	335.6
75°	29.0	36.1	66.1	77.5	197.3	237.5	249.9	261.3	272.7	274.7	271.7
77.5°	25.8	32.0	56.8	65.1	153.9	188.0	198.3	204.5	213.8	215.8	216.9
80°	21.7	27.9	44.4	50.6	111.6	138.4	145.6	150.8	159.1	159.1	161.1
82.5°	16.6	21.7	32.0	36.1	75.4	95.0	101.2	104.3	109.5	109.5	109.5
85°	10.3	13.4	20.6	23.7	45.4	57.8	62.0	63.0	67.1	68.1	68.1
87.5°	5.2	7.2	13.4	14.5	23.7	30.0	30.0	32.0	32.0	31.0	30.0
90°	1.5	2.8	4.0	4.3	6.8	10.1	11.7	10.4	7.8	5.9	5.9
92.5°	6.2	16.6	27.2	29.8	41.9	58.0	66.0	57.8	41.6	29.3	28.2
95°	14.8	34.0	53.2	58.0	102.9	162.9	193.0	172.2	130.7	99.5	95.9
97.5°	25.6	42.6	59.4	63.7	138.7	238.7	288.8	275.7	249.4	229.7	223.0
100°	34.0	49.3	64.6	68.5	151.7	262.6	318.2	319.2	321.1	322.6	314.5
102.5°	41.0	55.4	69.7	73.2	157.7	270.3	326.6	343.3	376.7	401.8	394.9
105°	53.1	65.2	77.4	80.4	162.2	271.1	325.6	363.1	438.1	494.3	490.6
107.5°	65.4	76.7	88.0	90.9	162.9	259.0	307.1	359.4	464.0	542.5	543.4
110°	73.8	83.9	94.2	96.7	161.7	248.3	291.7	350.1	467.1	554.8	558.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	81.9	91.6	101.3	103.8	161.8	239.0	277.7	337.5	457.1	546.9	552.9
115°	94.2	103.2	112.2	114.4	163.2	228.3	260.8	318.5	433.8	520.3	528.5
117.5°	106.4	114.6	122.7	124.8	166.3	221.6	249.2	301.3	405.3	483.4	492.5
120°	113.5	121.2	128.9	130.8	168.8	219.4	244.6	292.1	387.2	458.5	467.3
122.5°	120.4	128.2	136.0	137.9	172.3	218.1	241.1	283.9	369.5	433.7	442.4
125°	131.1	138.2	145.2	147.0	177.1	217.2	237.2	273.6	346.3	400.9	408.9
127.5°	139.8	146.8	154.0	155.8	181.9	216.6	234.0	265.3	327.7	374.5	381.3
130°	144.4	152.1	159.7	161.6	185.3	217.0	232.8	260.6	316.2	357.8	364.1
132.5°	149.1	156.8	164.5	166.4	188.2	217.2	231.7	256.6	306.3	343.7	349.3
135°	156.2	163.2	170.2	172.0	191.3	217.0	229.8	250.7	292.4	323.6	328.4
137.5°	163.5	170.4	177.3	179.1	195.9	218.3	229.5	247.2	282.4	308.8	312.7
140°	169.5	175.9	182.3	183.9	198.7	218.5	228.5	243.7	274.1	296.9	300.6
142.5°	174.2	180.0	186.0	187.4	201.1	219.4	228.5	241.9	268.6	288.6	291.8
145°	181.3	186.4	191.5	192.8	204.2	219.4	226.9	237.9	259.7	276.1	278.5
147.5°	188.3	193.3	198.4	199.6	208.7	220.8	226.9	235.5	252.7	265.6	267.6
150°	193.0	197.5	202.0	203.1	211.1	221.6	226.9	234.2	248.7	259.6	261.2
152.5°	197.7	201.1	204.6	205.4	212.6	222.1	226.9	233.1	245.5	254.8	256.0
155°	204.8	207.4	209.9	210.5	216.0	223.3	226.9	231.8	241.7	249.1	249.9
157.5°	210.1	212.5	215.0	215.6	219.4	224.4	226.9	230.8	238.4	244.2	244.7
160°	213.6	215.5	217.4	217.9	220.9	224.9	226.9	230.2	236.8	241.7	242.0
162.5°	217.1	218.6	220.0	220.4	222.5	225.5	226.9	229.7	235.2	239.4	239.7
165°	221.1	222.4	223.7	224.0	225.0	226.3	226.9	228.9	232.8	235.9	236.2
167.5°	224.6	225.2	225.8	226.0	226.8	227.9	228.5	229.8	232.4	234.3	234.5
170°	226.9	227.5	228.2	228.3	228.4	228.5	228.5	229.8	232.4	234.3	234.3
172.5°	228.2	228.3	228.5	228.5	228.5	228.5	228.5	229.5	231.5	233.1	232.9
175°	229.8	229.8	229.8	229.8	229.4	228.8	228.5	229.1	230.4	231.4	231.4
177.5°	229.8	229.8	229.8	229.8	229.5	229.0	228.8	229.3	230.3	231.1	230.9
180°	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	321.2	321.2
2.5°	342.9	340.8
5°	441.0	443.1
7.5°	593.8	592.8
10°	738.4	747.7
12.5°	843.8	845.8
15°	907.8	912.0
17.5°	932.6	933.6
20°	933.6	931.5
22.5°	922.3	920.2
25°	908.8	907.8
27.5°	896.4	897.5
30°	891.3	894.4
32.5°	891.3	896.4
35°	893.4	898.5
37.5°	892.4	898.5
40°	888.2	895.4
42.5°	876.9	882.0
45°	859.3	865.5
47.5°	836.5	840.7
50°	807.7	811.8
52.5°	771.5	772.5
55°	728.1	732.3
57.5°	681.7	682.7
60°	630.0	633.1
62.5°	575.3	575.3
65°	517.4	519.5
67.5°	457.5	462.7
70°	396.6	397.6
72.5°	336.7	336.7
75°	274.7	275.7
77.5°	215.8	215.8
80°	160.1	161.1
82.5°	110.5	112.6
85°	69.2	69.2
87.5°	32.0	29.0
90°	5.9	5.9
92.5°	23.5	18.8
95°	81.9	67.7
97.5°	196.0	169.2
100°	282.5	250.5
102.5°	367.5	340.1
105°	475.9	461.2
107.5°	546.9	550.5
110°	574.0	589.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	576.4	600.0
115°	561.2	593.8
117.5°	528.8	565.0
120°	502.6	537.8
122.5°	477.2	511.9
125°	440.9	472.9
127.5°	408.3	435.3
130°	389.0	414.0
132.5°	371.6	393.9
135°	347.7	366.9
137.5°	328.5	344.3
140°	315.3	330.1
142.5°	304.5	317.1
145°	288.1	297.7
147.5°	275.5	283.5
150°	267.7	274.1
152.5°	260.9	265.7
155°	253.1	256.3
157.5°	247.0	249.2
160°	243.3	244.6
162.5°	240.9	242.2
165°	237.5	238.8
167.5°	235.0	235.5
170°	234.3	234.3
172.5°	232.5	232.0
175°	231.4	231.4
177.5°	230.4	229.8
180°	229.8	229.8



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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	3.46	4.49	4.29	5.36	6.43	16.64	17.67	17.47	18.54	19.61
	3H	4.17	5.11	5.02	5.98	7.08	18.49	19.42	19.33	20.29	21.40
	4H	4.48	5.37	5.34	6.24	7.36	19.14	20.03	20.00	20.90	22.02
	6H	4.74	5.56	5.61	6.44	7.57	19.58	20.40	20.45	21.28	22.41
	8H	4.81	5.59	5.70	6.50	7.62	19.71	20.49	20.59	21.39	22.52
	12H	4.84	5.58	5.73	6.48	7.63	19.78	20.52	20.67	21.42	22.58
4H	2H	10.69	11.58	11.56	12.46	13.57	16.93	17.82	17.80	18.69	19.81
	3H	12.28	13.02	13.16	13.93	15.06	18.99	19.73	19.87	20.64	21.77
	4H	12.38	13.06	13.27	13.96	15.12	19.77	20.44	20.66	21.35	22.51
	6H	12.40	12.99	13.31	13.92	15.07	20.32	20.90	21.22	21.83	22.99
	8H	12.38	12.93	13.29	13.86	15.03	20.48	21.03	21.39	21.96	23.13
	12H	12.35	12.84	13.28	13.79	14.96	20.59	21.08	21.51	22.02	23.20
8H	4H	13.84	14.39	14.75	15.31	16.48	19.84	20.39	20.75	21.32	22.49
	6H	14.09	14.55	15.03	15.51	16.68	20.48	20.94	21.42	21.90	23.07
	8H	14.11	14.51	15.06	15.47	16.66	20.70	21.11	21.65	22.06	23.25
	12H	14.09	14.44	15.04	15.39	16.63	20.86	21.21	21.81	22.16	23.40
12H	4H	13.99	14.49	14.92	15.43	16.61	19.80	20.30	20.73	21.24	22.42
	6H	14.35	14.76	15.30	15.71	16.90	20.47	20.87	21.41	21.83	23.02
	8H	14.43	14.79	15.38	15.74	16.97	20.70	21.06	21.65	22.01	23.25