

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: P936210

Luminaire Tested: SQ4-FB-025U-050D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

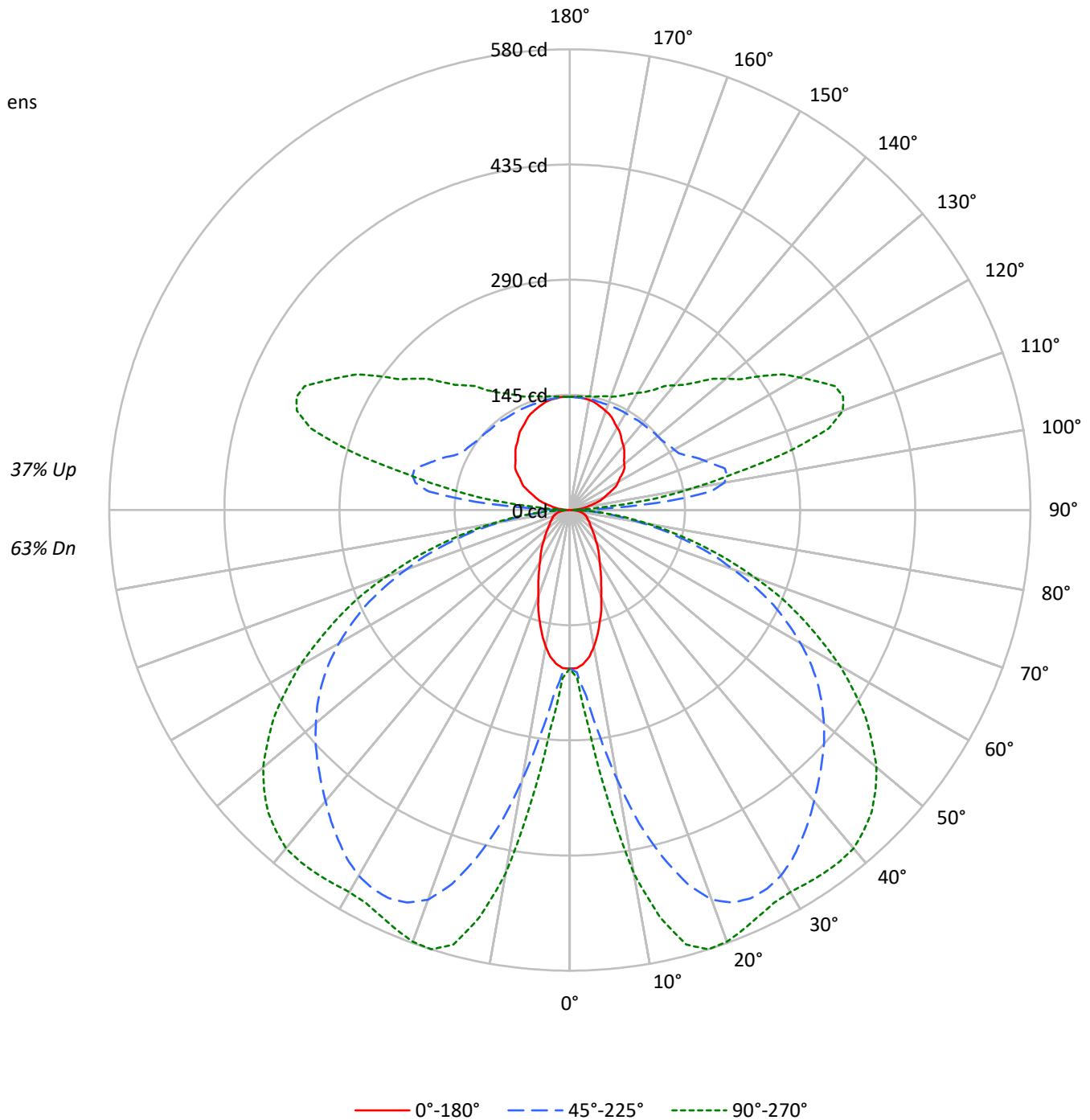
Test Method: LM-79-2019  
Report Number: P936210  
REPORT IS A COMBINATION OF REPORTS P933437 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-050D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2468.4 lumens  
Efficiency: N/A  
Efficacy: 112.2 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): 22  
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	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	64	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°	1850	1850	1850
5°	1807	2137	2487
10°	1637	3114	4124
15°	1389	4065	4980
20°	1130	4708	5076
25°	941	4922	4973
30°	792	4949	4963
35°	699	4863	5091
40°	609	4753	5224
45°	549	4670	5245
50°	503	4595	5158
55°	481	4488	4929
60°	489	4285	4567
65°	508	3978	4072
70°	536	3462	3440
75°	590	2816	2684
80°	632	1945	1810
85°	530	1028	924

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5245 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.8	1.0
10°-20°	114.4	4.6
20°-30°	200.0	8.1
30°-40°	257.5	10.4
40°-50°	287.6	11.7
50°-60°	275.4	11.2
60°-70°	218.3	8.8
70°-80°	128.4	5.2
80°-90°	36.2	1.5
90°-100°	69.5	2.8
100°-110°	182.8	7.4
110°-120°	189.6	7.7
120°-130°	152.1	6.2
130°-140°	119.3	4.8
140°-150°	91.6	3.7
150°-160°	65.9	2.7
160°-170°	40.3	1.6
170°-180°	13.6	0.6
0°-30°	340.2	13.8
0°-40°	597.6	24.2
0°-60°	1160.7	47.0
0°-90°	1543.5	62.5
90°-120°	442.0	17.9
90°-150°	804.9	32.6
90°-180°	925.0	37.5
0°-180°	2468.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	199	199	199	199	199	
5°	194	208	235	266	275	18
15°	146	269	453	549	566	41
25°	93	305	539	563	564	43
35°	63	291	508	537	558	39
45°	43	232	449	514	538	33
55°	31	148	381	442	455	28
65°	24	78	283	318	323	24
75°	18	48	155	171	171	19
85°	6	15	38	42	43	7
90°	1	3	7	4	4	1
95°	9	36	120	62	42	10
105°	33	50	202	307	286	35
115°	58	71	162	323	369	58
125°	81	91	147	249	294	72
135°	97	107	143	201	228	75
145°	112	120	141	171	185	70
155°	127	131	141	155	159	58
165°	137	139	141	146	148	39
175°	143	143	142	144	144	14
180°	143	143	143	143	143	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4
2.5°	199.4	199.4	200.8	201.3	202.7	203.3	204.6	205.8	209.7	210.3	211.7
5°	194.4	196.9	205.3	208.4	217.4	229.6	234.7	243.1	260.4	265.5	268.7
7.5°	186.6	192.4	212.9	218.1	240.5	272.6	286.0	304.0	331.5	345.0	355.9
10°	174.5	186.6	223.2	235.4	271.9	320.6	345.7	370.7	412.4	431.0	438.0
12.5°	161.0	180.9	234.1	250.8	303.3	374.6	404.7	432.3	479.7	504.8	508.6
15°	145.6	172.6	244.4	268.7	336.7	419.4	452.8	486.8	531.1	548.9	553.4
17.5°	132.1	166.2	254.0	279.6	362.3	459.8	493.9	522.1	557.9	570.2	573.3
20°	115.5	155.8	260.4	293.8	389.3	489.4	522.1	543.9	568.2	575.9	577.2
22.5°	103.2	144.9	264.2	298.8	407.3	507.3	534.9	552.2	568.8	571.4	572.1
25°	93.0	132.8	263.6	304.7	422.6	518.2	539.4	552.2	561.8	563.1	563.1
27.5°	83.4	119.3	261.0	305.9	434.2	520.7	537.5	546.4	550.9	553.4	553.4
30°	75.0	106.5	254.6	303.3	439.3	518.2	531.6	536.1	540.6	544.5	546.4
32.5°	68.6	94.3	245.0	298.2	440.0	511.7	521.4	524.0	530.4	539.4	542.5
35°	62.8	82.1	234.1	291.2	436.1	501.5	507.9	510.5	523.3	536.8	541.3
37.5°	57.1	73.1	220.0	279.0	430.3	489.4	493.9	498.4	518.2	534.2	539.4
40°	51.3	65.4	203.3	265.5	421.4	474.6	478.5	485.5	511.7	530.4	535.6
42.5°	46.8	59.0	185.4	251.4	409.8	457.9	463.7	474.0	504.1	524.0	529.7
45°	42.9	52.6	166.2	232.1	395.0	440.6	448.9	463.1	495.1	514.3	519.5
47.5°	39.1	48.1	146.3	212.3	379.1	423.3	434.2	450.2	483.0	501.5	506.0
50°	35.9	43.6	126.4	191.1	361.8	404.7	417.5	434.2	467.6	484.9	490.6
52.5°	33.4	39.8	107.7	170.0	341.9	385.5	400.2	417.5	448.9	465.6	469.5
55°	30.8	36.5	91.7	147.5	321.3	364.9	381.0	397.6	428.4	442.5	445.1
57.5°	29.5	34.0	78.2	126.4	299.5	341.9	359.7	375.1	404.0	414.9	417.5
60°	27.5	32.0	68.0	108.4	275.8	320.1	335.5	350.9	375.1	384.1	386.1
62.5°	25.6	30.8	60.3	91.1	251.4	294.4	309.7	323.9	344.4	350.9	353.3
65°	24.4	29.5	54.5	78.2	226.4	267.4	282.8	295.0	311.7	318.1	319.4
67.5°	23.1	28.2	50.0	67.3	201.3	240.5	252.0	263.6	276.4	282.8	283.5
70°	21.1	27.0	46.2	59.7	175.7	209.7	219.3	231.5	241.8	245.0	246.9
72.5°	19.9	25.0	43.6	53.9	149.4	180.2	189.2	196.3	205.3	208.4	208.4
75°	18.0	22.5	41.0	48.1	122.5	147.5	155.2	162.2	169.3	170.6	168.6
77.5°	16.1	19.9	35.3	40.4	95.6	116.7	123.1	127.0	132.8	134.0	134.7
80°	13.5	17.3	27.5	31.5	69.3	85.9	90.4	93.6	98.8	98.8	100.1
82.5°	10.2	13.5	19.9	22.5	46.8	59.0	62.8	64.8	68.0	68.0	68.0
85°	6.4	8.3	12.8	14.7	28.2	35.9	38.5	39.1	41.7	42.4	42.4
87.5°	3.3	4.5	8.3	9.0	14.7	18.6	18.6	19.9	19.9	19.2	18.6
90°	1.0	1.7	2.5	2.7	4.2	6.2	7.3	6.5	4.9	3.6	3.6
92.5°	3.8	10.3	16.8	18.5	26.0	36.0	41.0	35.9	25.8	18.2	17.4
95°	9.2	21.1	33.1	36.0	64.0	101.1	119.8	106.9	81.1	61.8	59.6
97.5°	15.9	26.4	36.9	39.6	86.1	148.2	179.2	171.1	154.8	142.5	138.3
100°	21.0	30.6	40.2	42.5	94.2	163.1	197.5	198.1	199.3	200.2	195.2
102.5°	25.4	34.3	43.3	45.5	97.9	167.8	202.7	213.1	233.8	249.4	245.1
105°	33.0	40.5	48.0	49.9	100.7	168.3	202.1	225.4	272.0	306.9	304.6
107.5°	40.6	47.6	54.7	56.4	101.1	160.8	190.6	223.1	288.0	336.8	337.4
110°	45.8	52.1	58.4	60.0	100.4	154.2	181.1	217.4	290.0	344.4	346.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	50.9	56.9	62.9	64.4	100.4	148.4	172.4	209.6	283.8	339.6	343.2
115°	58.5	64.1	69.6	71.0	101.3	141.8	161.9	197.7	269.3	322.9	328.0
117.5°	66.1	71.1	76.2	77.4	103.2	137.6	154.8	187.1	251.6	300.1	305.7
120°	70.5	75.2	80.0	81.2	104.7	136.1	151.8	181.4	240.4	284.7	290.1
122.5°	74.8	79.5	84.3	85.6	106.9	135.4	149.6	176.2	229.3	269.2	274.6
125°	81.4	85.8	90.2	91.3	109.9	134.8	147.2	169.8	215.0	248.8	253.8
127.5°	86.7	91.2	95.6	96.7	112.9	134.4	145.2	164.6	203.4	232.5	236.7
130°	89.6	94.4	99.1	100.4	115.1	134.7	144.5	161.8	196.3	222.2	226.0
132.5°	92.6	97.4	102.2	103.3	116.8	134.8	143.8	159.3	190.1	213.4	216.8
135°	97.0	101.3	105.7	106.8	118.7	134.7	142.6	155.5	181.4	200.9	203.8
137.5°	101.5	105.8	110.1	111.2	121.6	135.5	142.4	153.3	175.2	191.7	194.2
140°	105.3	109.2	113.2	114.1	123.3	135.7	141.8	151.2	170.2	184.3	186.6
142.5°	108.1	111.8	115.4	116.3	124.9	136.1	141.8	150.1	166.7	179.2	181.2
145°	112.5	115.7	118.9	119.7	126.8	136.1	140.8	147.6	161.2	171.4	172.9
147.5°	116.9	120.0	123.1	123.9	129.5	137.1	140.8	146.2	156.9	164.9	166.2
150°	119.8	122.6	125.4	126.1	131.0	137.6	140.8	145.3	154.4	161.2	162.1
152.5°	122.8	124.9	127.0	127.5	131.9	137.9	140.8	144.6	152.4	158.2	159.0
155°	127.1	128.7	130.3	130.7	134.0	138.5	140.8	143.9	150.1	154.7	155.2
157.5°	130.4	131.9	133.5	133.8	136.1	139.3	140.8	143.2	148.0	151.5	151.9
160°	132.6	133.7	135.0	135.3	137.1	139.6	140.8	142.8	146.9	150.0	150.2
162.5°	134.8	135.7	136.6	136.8	138.1	140.0	140.8	142.5	146.0	148.6	148.8
165°	137.2	138.0	138.8	139.0	139.6	140.4	140.8	142.1	144.5	146.4	146.6
167.5°	139.4	139.8	140.1	140.2	140.7	141.4	141.8	142.5	144.2	145.4	145.5
170°	140.8	141.2	141.6	141.7	141.7	141.8	141.8	142.5	144.2	145.4	145.4
172.5°	141.6	141.7	141.8	141.8	141.8	141.8	141.8	142.4	143.7	144.6	144.5
175°	142.6	142.6	142.6	142.6	142.3	142.0	141.8	142.2	143.0	143.6	143.6
177.5°	142.6	142.6	142.6	142.6	142.4	142.2	142.0	142.3	142.9	143.4	143.3
180°	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	199.4	199.4
2.5°	212.9	211.7
5°	273.9	275.1
7.5°	368.7	368.2
10°	458.6	464.3
12.5°	524.0	525.2
15°	563.8	566.3
17.5°	579.1	579.8
20°	579.8	578.5
22.5°	572.7	571.4
25°	564.4	563.8
27.5°	556.7	557.3
30°	553.4	555.4
32.5°	553.4	556.7
35°	554.8	557.9
37.5°	554.1	557.9
40°	551.5	556.0
42.5°	544.5	547.7
45°	533.5	537.5
47.5°	519.5	522.1
50°	501.5	504.1
52.5°	479.1	479.7
55°	452.2	454.7
57.5°	423.3	423.9
60°	391.2	393.1
62.5°	357.3	357.3
65°	321.3	322.6
67.5°	284.1	287.3
70°	246.3	246.9
72.5°	209.1	209.1
75°	170.6	171.2
77.5°	134.0	134.0
80°	99.4	100.1
82.5°	68.6	69.9
85°	42.9	42.9
87.5°	19.9	18.0
90°	3.6	3.6
92.5°	14.5	11.7
95°	50.9	42.1
97.5°	121.7	105.1
100°	175.4	155.5
102.5°	228.1	211.1
105°	295.5	286.3
107.5°	339.6	341.8
110°	356.3	365.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	357.8	372.5
115°	348.4	368.6
117.5°	328.2	350.8
120°	312.0	333.8
122.5°	296.2	317.8
125°	273.7	293.6
127.5°	253.4	270.2
130°	241.5	257.0
132.5°	230.7	244.5
135°	215.9	227.8
137.5°	203.9	213.8
140°	195.7	204.9
142.5°	189.0	196.8
145°	178.9	184.8
147.5°	171.0	176.0
150°	166.2	170.2
152.5°	161.9	165.0
155°	157.2	159.2
157.5°	153.3	154.8
160°	151.0	151.8
162.5°	149.5	150.3
165°	147.4	148.2
167.5°	145.8	146.2
170°	145.4	145.4
172.5°	144.3	144.0
175°	143.6	143.6
177.5°	143.0	142.6
180°	142.6	142.6



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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	4.19	5.23	5.03	6.09	7.17	17.33	18.37	18.17	19.23	20.31
	3H	4.91	5.85	5.76	6.72	7.82	19.17	20.11	20.02	20.98	22.08
	4H	5.22	6.11	6.08	6.98	8.10	19.81	20.70	20.68	21.58	22.69
	6H	5.48	6.30	6.36	7.18	8.31	20.24	21.06	21.12	21.94	23.07
	8H	5.56	6.34	6.44	7.24	8.37	20.36	21.14	21.24	22.04	23.17
	12H	5.58	6.32	6.47	7.22	8.37	20.43	21.17	21.32	22.07	23.22
4H	2H	11.41	12.29	12.27	13.17	14.28	17.63	18.52	18.50	19.39	20.51
	3H	12.99	13.73	13.87	14.64	15.77	19.68	20.42	20.56	21.33	22.46
	4H	13.10	13.77	13.99	14.68	15.83	20.44	21.12	21.33	22.03	23.18
	6H	13.12	13.70	14.02	14.63	15.79	20.98	21.57	21.89	22.50	23.65
	8H	13.10	13.65	14.01	14.57	15.74	21.14	21.69	22.05	22.61	23.78
	12H	13.06	13.56	13.99	14.50	15.68	21.23	21.73	22.16	22.67	23.85
8H	4H	14.55	15.09	15.45	16.02	17.19	20.52	21.07	21.43	21.99	23.16
	6H	14.80	15.25	15.73	16.22	17.39	21.14	21.60	22.08	22.57	23.74
	8H	14.82	15.22	15.76	16.18	17.37	21.36	21.76	22.30	22.72	23.91
	12H	14.79	15.15	15.74	16.10	17.34	21.50	21.86	22.45	22.81	24.05
12H	4H	14.69	15.19	15.62	16.13	17.31	20.48	20.98	21.41	21.92	23.10
	6H	15.05	15.46	16.00	16.42	17.60	21.13	21.53	22.07	22.49	23.68
	8H	15.13	15.49	16.08	16.44	17.68	21.36	21.72	22.31	22.67	23.90