

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: P936691

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936691
REPORT IS A COMBINATION OF REPORTS P933477 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

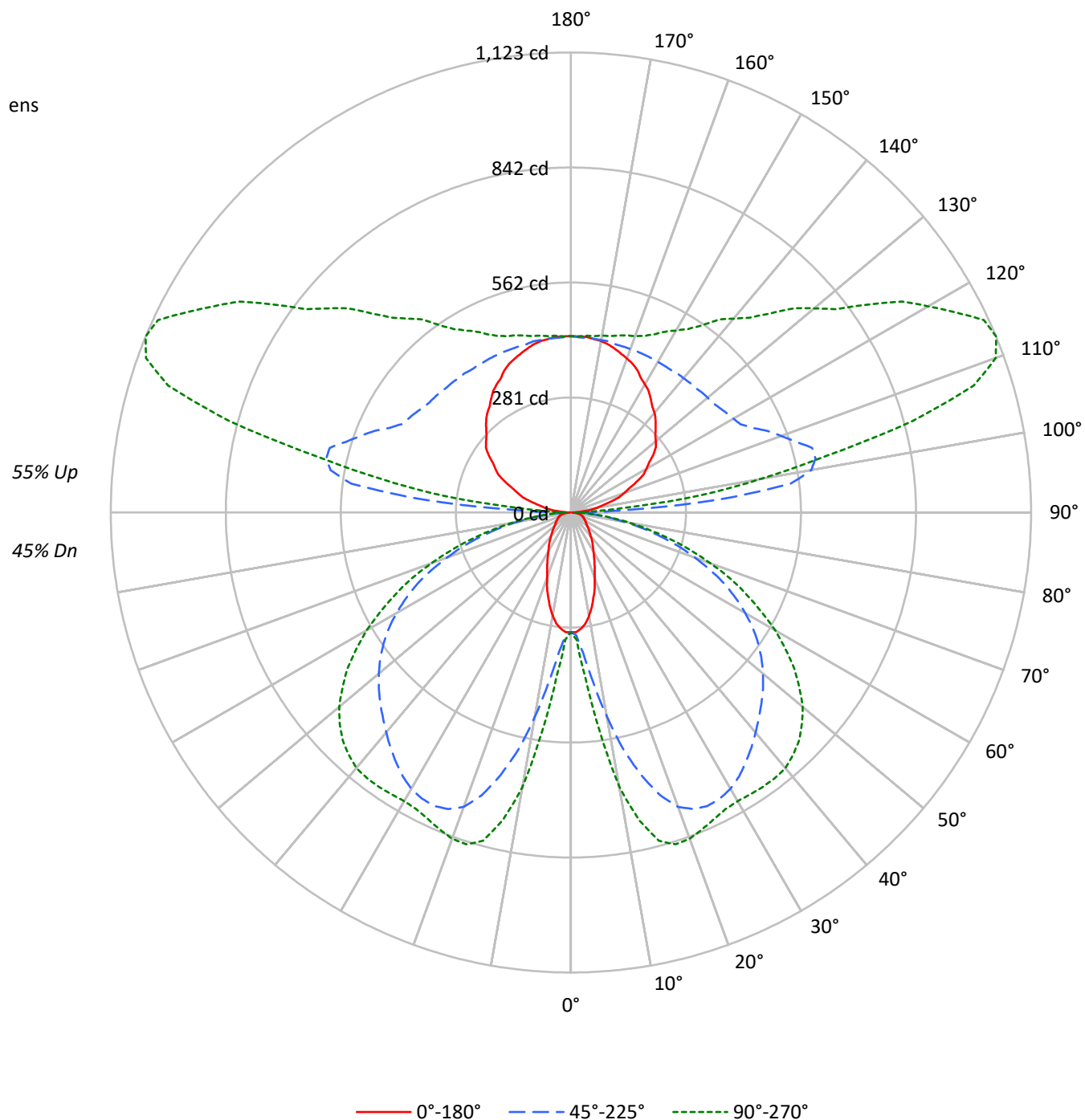
Lumens per Lamp: N/A
Luminaire Lumens: 5051.1 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 42.6
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P936691

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	24
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1808	1808	1808
5°	1765	2088	2429
10°	1600	3044	4027
15°	1359	3975	4864
20°	1107	4606	4957
25°	923	4819	4856
30°	778	4848	4847
35°	688	4766	4972
40°	599	4660	5101
45°	542	4582	5122
50°	496	4512	5037
55°	475	4410	4814
60°	486	4214	4461
65°	505	3917	3976
70°	536	3414	3359
75°	592	2780	2622
80°	641	1925	1766
85°	560	1021	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5122 cd/sqm

TEST NUMBER: P936691

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	0.7
10°-20°	167.5	3.3
20°-30°	293.0	5.8
30°-40°	377.2	7.5
40°-50°	421.3	8.3
50°-60°	403.5	8.0
60°-70°	319.8	6.3
70°-80°	188.0	3.7
80°-90°	53.9	1.1
90°-100°	209.7	4.2
100°-110°	551.4	10.9
110°-120°	571.7	11.3
120°-130°	458.6	9.1
130°-140°	359.8	7.1
140°-150°	276.2	5.5
150°-160°	198.9	3.9
160°-170°	121.7	2.4
170°-180°	41.1	0.8
0°-30°	498.3	9.9
0°-40°	875.5	17.3
0°-60°	1700.2	33.7
0°-90°	2261.9	44.8
90°-120°	1332.8	26.4
90°-150°	2427.4	48.1
90°-180°	2789.0	55.2
0°-180°	5051.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	285	305	344	389	403	26
15°	213	394	663	804	830	59
25°	136	446	790	825	826	63
35°	92	427	744	786	817	57
45°	63	340	658	754	787	49
55°	45	216	558	648	666	41
65°	36	115	414	466	472	35
75°	26	70	227	250	251	28
85°	9	22	56	62	63	10
90°	3	8	22	11	11	3
95°	28	108	361	186	127	31
105°	99	150	610	926	863	105
115°	176	214	488	974	1112	174
125°	246	275	444	750	885	218
135°	292	322	430	606	687	226
145°	339	361	425	517	557	213
155°	384	394	425	466	480	176
165°	414	419	425	442	447	117
175°	430	430	428	433	433	41
180°	430	430	430	430	430	

TEST NUMBER: P936691

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2
2.5°	292.2	292.2	294.0	295.0	296.9	297.9	299.7	301.6	307.2	308.1	310.0
5°	284.7	288.4	300.7	305.3	318.5	336.3	343.8	356.0	381.4	388.9	393.7
7.5°	273.4	281.9	311.9	319.4	352.3	399.3	419.0	445.3	485.7	505.5	521.5
10°	255.5	273.4	326.9	344.8	398.4	469.7	506.4	543.0	604.1	631.3	641.7
12.5°	235.8	265.0	342.9	367.3	444.4	548.6	592.8	633.3	702.7	739.4	745.0
15°	213.2	252.7	357.9	393.7	493.2	614.4	663.2	713.1	777.9	804.2	810.8
17.5°	193.5	243.3	372.0	409.7	530.8	673.6	723.4	764.8	817.3	835.2	839.9
20°	169.1	228.3	381.4	430.3	570.3	716.8	764.8	796.7	832.4	843.7	845.6
22.5°	151.2	212.3	387.0	437.8	596.5	743.1	783.5	808.8	833.3	837.1	838.0
25°	136.3	194.5	386.1	446.3	619.1	759.1	790.1	808.8	822.9	824.8	824.8
27.5°	122.2	174.8	382.4	448.1	636.1	762.9	787.3	800.4	807.0	810.8	810.8
30°	109.9	156.0	372.9	444.4	643.5	759.1	778.9	785.4	791.9	797.6	800.4
32.5°	100.5	138.1	358.8	436.8	644.5	749.7	763.8	767.6	776.9	790.1	794.8
35°	92.1	120.3	342.9	426.6	638.9	734.7	744.0	747.9	766.6	786.3	792.9
37.5°	83.6	107.1	322.2	408.7	630.4	716.8	723.4	730.0	759.1	782.6	790.1
40°	75.2	95.8	297.9	388.9	617.3	695.2	700.9	711.1	749.7	776.9	784.5
42.5°	68.6	86.4	271.5	368.3	600.3	670.8	679.2	694.2	738.4	767.6	776.0
45°	63.0	77.1	243.3	340.1	578.7	645.4	657.6	678.3	725.3	753.5	760.9
47.5°	57.3	70.4	214.2	310.9	555.3	620.1	636.1	659.5	707.4	734.7	741.2
50°	52.6	63.9	185.1	279.9	529.9	592.8	611.6	636.1	684.9	710.2	718.7
52.5°	48.8	58.3	157.8	249.0	500.7	564.6	586.3	611.6	657.6	682.1	687.7
55°	45.1	53.5	134.3	216.0	470.6	534.5	558.1	582.4	627.6	648.2	652.0
57.5°	43.2	49.8	114.6	185.1	438.7	500.7	527.1	549.6	591.9	607.8	611.6
60°	40.4	47.0	99.6	158.8	404.0	468.8	491.4	513.9	549.6	562.7	565.5
62.5°	37.5	45.1	88.4	133.4	368.3	431.2	453.7	474.5	504.5	513.9	517.6
65°	35.7	43.2	79.9	114.6	331.7	391.7	414.3	432.2	456.5	466.0	467.8
67.5°	33.8	41.4	73.3	98.6	295.0	352.3	369.2	386.1	404.9	414.3	415.3
70°	31.0	39.4	67.6	87.3	257.4	307.2	321.3	339.1	354.2	358.8	361.7
72.5°	29.1	36.6	63.9	78.9	218.9	263.9	277.1	287.5	300.7	305.3	305.3
75°	26.3	32.9	60.1	70.4	179.4	216.0	227.3	237.7	248.0	249.9	247.0
77.5°	23.4	29.1	51.7	59.2	140.0	171.0	180.4	186.1	194.5	196.3	197.3
80°	19.7	25.4	40.4	46.0	101.4	125.9	132.4	137.2	144.7	144.7	146.5
82.5°	15.0	19.7	29.1	32.9	68.6	86.4	92.1	94.9	99.6	99.6	99.6
85°	9.4	12.2	18.8	21.6	41.4	52.6	56.4	57.3	61.1	62.0	62.0
87.5°	4.7	6.5	12.2	13.2	21.6	27.3	27.3	29.1	29.1	28.2	27.3
90°	2.9	5.2	7.6	8.1	12.7	18.9	21.9	19.5	14.6	10.9	10.9
92.5°	11.6	31.2	50.8	55.8	78.4	108.5	123.6	108.3	77.7	54.8	52.7
95°	27.7	63.6	99.6	108.5	192.8	305.1	361.3	322.4	244.6	186.2	179.6
97.5°	47.9	79.7	111.3	119.3	259.7	447.0	540.6	516.0	466.8	429.9	417.3
100°	63.5	92.3	121.0	128.2	284.0	491.8	595.7	597.5	601.1	603.8	588.9
102.5°	76.8	103.7	130.5	137.2	295.2	505.9	611.3	642.6	705.3	752.2	739.4
105°	99.4	122.1	144.8	150.5	303.5	507.5	609.5	679.8	820.1	925.5	918.6
107.5°	122.4	143.6	164.8	170.1	305.0	484.9	574.9	672.8	868.6	1015.5	1017.2
110°	138.0	157.1	176.2	181.0	302.7	464.9	546.0	655.5	874.5	1038.7	1045.9

TEST NUMBER: P936691

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	153.4	171.6	189.8	194.4	302.8	447.5	519.8	631.9	855.9	1023.9	1035.0
115°	176.4	193.2	210.1	214.3	305.6	427.4	488.3	596.3	812.1	974.0	989.3
117.5°	199.2	214.5	229.8	233.6	311.3	414.9	466.6	564.0	758.9	905.0	922.0
120°	212.5	226.9	241.3	244.9	315.9	410.6	457.9	547.0	725.0	858.4	875.0
122.5°	225.6	240.0	254.5	258.2	322.5	408.3	451.3	531.4	691.8	812.0	828.3
125°	245.5	258.6	271.9	275.2	331.5	406.6	444.1	512.2	648.4	750.5	765.4
127.5°	261.6	275.0	288.3	291.7	340.4	405.5	438.0	496.5	613.4	701.1	713.7
130°	270.3	284.7	299.1	302.6	347.0	406.1	435.7	487.7	591.9	670.0	681.6
132.5°	279.3	293.6	308.0	311.6	352.3	406.6	433.7	480.4	573.5	643.3	653.8
135°	292.5	305.6	318.7	321.9	358.1	406.2	430.3	469.3	547.3	605.8	614.9
137.5°	306.1	319.1	331.9	335.2	366.7	408.6	429.6	462.6	528.6	578.1	585.4
140°	317.4	329.3	341.2	344.2	372.0	409.1	427.7	456.2	513.1	555.8	562.7
142.5°	326.0	337.0	348.0	350.8	376.4	410.6	427.7	452.7	502.7	540.2	546.2
145°	339.3	348.9	358.6	361.0	382.3	410.6	424.8	445.2	486.1	516.9	521.4
147.5°	352.6	361.9	371.4	373.7	390.7	413.4	424.8	440.8	473.1	497.3	501.0
150°	361.3	369.8	378.2	380.3	395.2	414.9	424.8	438.4	465.6	486.0	488.9
152.5°	370.1	376.6	383.0	384.6	398.0	415.8	424.8	436.4	459.6	477.0	479.2
155°	383.5	388.3	392.9	394.1	404.3	418.0	424.8	434.0	452.5	466.3	467.8
157.5°	393.3	397.9	402.6	403.7	410.7	420.1	424.8	432.0	446.4	457.1	458.1
160°	399.9	403.5	407.0	408.0	413.6	421.0	424.8	430.9	443.3	452.5	453.1
162.5°	406.6	409.3	412.0	412.6	416.7	422.1	424.8	430.0	440.4	448.1	448.7
165°	413.8	416.2	418.6	419.3	421.1	423.6	424.8	428.5	435.9	441.5	442.2
167.5°	420.4	421.5	422.7	423.0	424.6	426.7	427.7	430.1	435.0	438.6	438.9
170°	424.8	425.9	427.1	427.4	427.5	427.6	427.7	430.1	435.0	438.6	438.6
172.5°	427.1	427.4	427.6	427.7	427.7	427.7	427.7	429.5	433.4	436.3	436.1
175°	430.3	430.3	430.3	430.3	429.5	428.2	427.7	428.9	431.3	433.1	433.1
177.5°	430.3	430.3	430.3	430.3	429.6	428.7	428.2	429.2	431.1	432.5	432.3
180°	430.3	430.3	430.3	430.3	430.3	430.3	430.3	430.3	430.3	430.3	430.3

TEST NUMBER: P936691

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	292.2	292.2
2.5°	311.9	310.0
5°	401.2	403.0
7.5°	540.2	539.3
10°	671.7	680.1
12.5°	767.6	769.4
15°	825.8	829.6
17.5°	848.4	849.3
20°	849.3	847.4
22.5°	838.9	837.1
25°	826.8	825.8
27.5°	815.5	816.4
30°	810.8	813.6
32.5°	810.8	815.5
35°	812.7	817.3
37.5°	811.7	817.3
40°	807.9	814.5
42.5°	797.6	802.3
45°	781.7	787.3
47.5°	760.9	764.8
50°	734.7	738.4
52.5°	701.8	702.7
55°	662.3	666.1
57.5°	620.1	621.0
60°	573.1	575.9
62.5°	523.3	523.3
65°	470.6	472.5
67.5°	416.2	420.9
70°	360.8	361.7
72.5°	306.3	306.3
75°	249.9	250.9
77.5°	196.3	196.3
80°	145.6	146.5
82.5°	100.5	102.4
85°	63.0	63.0
87.5°	29.1	26.3
90°	10.9	10.9
92.5°	43.9	35.2
95°	153.2	126.7
97.5°	367.1	316.8
100°	528.9	469.0
102.5°	688.1	636.7
105°	891.0	863.4
107.5°	1023.9	1030.6
110°	1074.6	1103.3



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CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-6-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1079.1	1123.2
115°	1050.5	1111.7
117.5°	989.9	1057.8
120°	940.9	1006.9
122.5°	893.4	958.4
125°	825.4	885.3
127.5°	764.3	814.9
130°	728.3	775.0
132.5°	695.6	737.5
135°	650.9	687.0
137.5°	615.0	644.6
140°	590.3	617.9
142.5°	569.9	593.7
145°	539.4	557.3
147.5°	515.8	530.7
150°	501.1	513.1
152.5°	488.4	497.5
155°	473.9	479.9
157.5°	462.4	466.6
160°	455.5	457.9
162.5°	451.0	453.4
165°	444.6	447.0
167.5°	439.9	440.9
170°	438.6	438.6
172.5°	435.2	434.3
175°	433.1	433.1
177.5°	431.3	430.3
180°	430.3	430.3

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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	2.56	3.41	3.55	4.42	5.76	15.73	16.58	16.72	17.59	18.93
	3H	3.27	4.03	4.27	5.05	6.41	17.56	18.32	18.56	19.34	20.70
	4H	3.56	4.29	4.58	5.31	6.68	18.20	18.92	19.22	19.95	21.32
	6H	3.81	4.48	4.84	5.51	6.89	18.63	19.29	19.65	20.32	21.70
	8H	3.88	4.52	4.91	5.56	6.94	18.74	19.38	19.78	20.42	21.80
	12H	3.90	4.50	4.94	5.54	6.94	18.81	19.41	19.85	20.45	21.86
4H	2H	9.77	10.49	10.79	11.51	12.88	16.00	16.72	17.02	17.75	19.11
	3H	11.33	11.94	12.37	12.99	14.37	18.04	18.65	19.07	19.70	21.08
	4H	11.43	11.98	12.47	13.03	14.43	18.80	19.36	19.84	20.40	21.80
	6H	11.44	11.92	12.49	12.98	14.38	19.34	19.82	20.39	20.88	22.28
	8H	11.41	11.86	12.47	12.92	14.34	19.50	19.94	20.55	21.00	22.42
	12H	11.37	11.78	12.44	12.85	14.27	19.59	19.99	20.66	21.06	22.49
8H	4H	12.87	13.32	13.92	14.37	15.79	18.86	19.31	19.91	20.37	21.78
	6H	13.11	13.48	14.18	14.58	15.99	19.49	19.86	20.56	20.96	22.37
	8H	13.13	13.45	14.21	14.54	15.97	19.70	20.03	20.78	21.11	22.55
	12H	13.10	13.38	14.18	14.46	15.93	19.84	20.13	20.93	21.21	22.68
12H	4H	13.01	13.42	14.08	14.49	15.91	18.81	19.22	19.88	20.29	21.71
	6H	13.37	13.69	14.45	14.78	16.21	19.47	19.80	20.55	20.88	22.31
	8H	13.44	13.72	14.52	14.80	16.27	19.70	19.98	20.78	21.06	22.53