

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: P936659

Luminaire Tested: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

**Test Information**

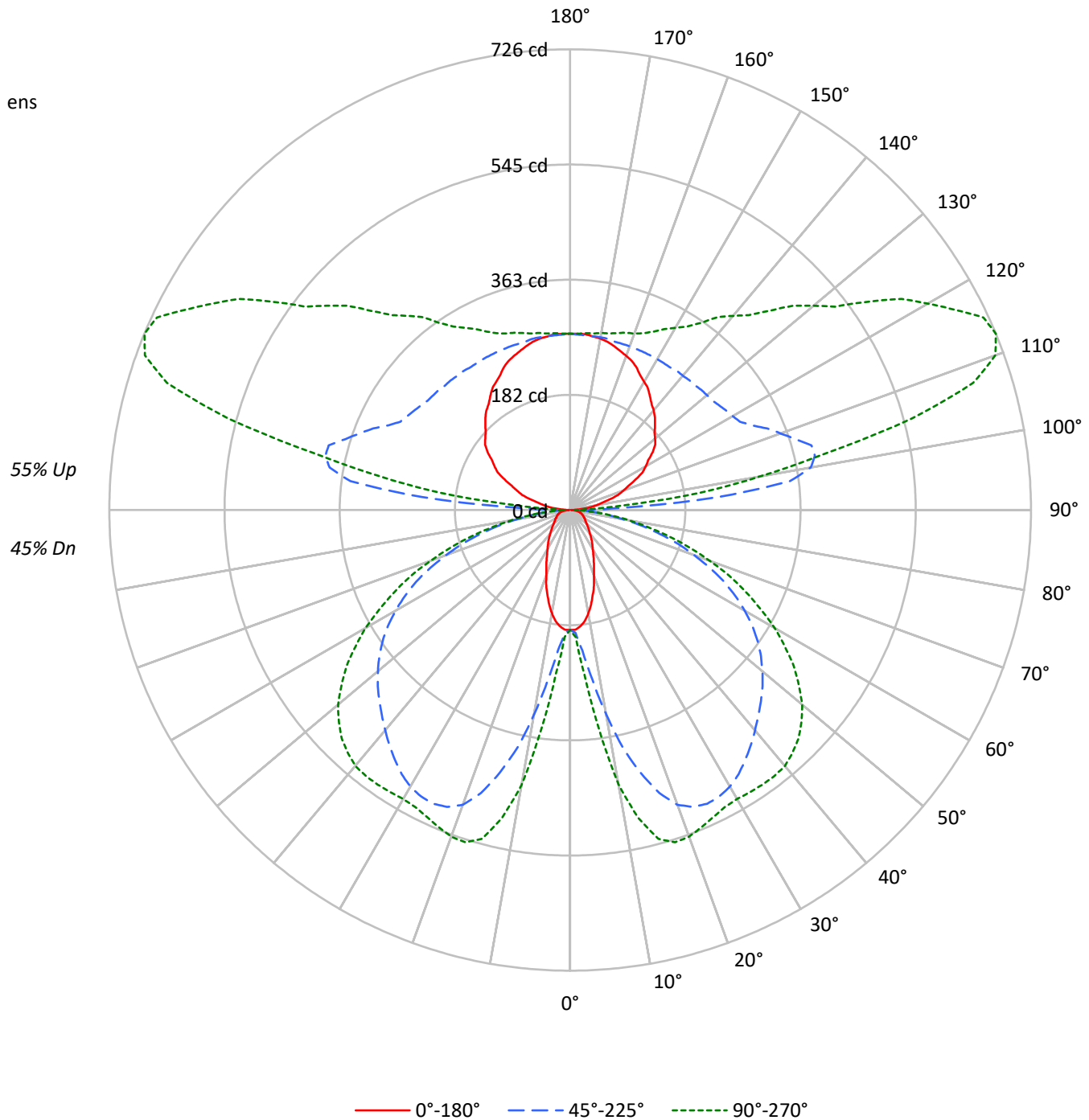
Test Method: LM-79-2019  
Report Number: P936659  
REPORT IS A COMBINATION OF REPORTS P933469 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-4-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3264.0 lumens  
Efficiency: N/A  
Efficacy: 114.9 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: General Diffuse  
  
Input Watts (W): 28.4  
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

TEST NUMBER: P936659  
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### Luminous Intensity Polar Plot





TEST NUMBER: P936659

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

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

	0°	45°	90°
0°	1752	1752	1752
5°	1710	2023	2355
10°	1550	2948	3905
15°	1316	3849	4715
20°	1070	4457	4805
25°	892	4660	4708
30°	751	4686	4699
35°	662	4604	4821
40°	577	4500	4945
45°	520	4422	4966
50°	477	4351	4883
55°	455	4249	4666
60°	464	4057	4325
65°	481	3766	3855
70°	508	3277	3257
75°	557	2665	2541
80°	599	1842	1714
85°	505	974	875

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4966 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.4	0.7
10°-20°	108.3	3.3
20°-30°	189.4	5.8
30°-40°	243.8	7.5
40°-50°	272.3	8.3
50°-60°	260.8	8.0
60°-70°	206.7	6.3
70°-80°	121.5	3.7
80°-90°	34.8	1.1
90°-100°	135.5	4.2
100°-110°	356.2	10.9
110°-120°	369.4	11.3
120°-130°	296.3	9.1
130°-140°	232.5	7.1
140°-150°	178.4	5.5
150°-160°	128.5	3.9
160°-170°	78.6	2.4
170°-180°	26.6	0.8
0°-30°	322.1	9.9
0°-40°	565.9	17.3
0°-60°	1099.0	33.7
0°-90°	1462.0	44.8
90°-120°	861.1	26.4
90°-150°	1568.3	48.0
90°-180°	1802.0	55.2
0°-180°	3264.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	189	189	189	189	189	
5°	184	197	222	251	260	17
15°	138	254	429	520	536	38
25°	88	288	511	533	534	41
35°	60	276	481	508	528	37
45°	41	220	425	487	509	31
55°	29	140	361	419	430	27
65°	23	74	268	301	305	23
75°	17	46	147	162	162	18
85°	6	14	36	40	41	6
90°	2	5	14	7	7	2
95°	18	70	233	120	82	20
105°	64	97	394	598	558	68
115°	114	138	315	629	718	113
125°	159	178	287	485	572	141
135°	189	208	278	391	444	146
145°	219	233	274	334	360	137
155°	248	255	274	301	310	114
165°	267	271	274	285	289	75
175°	278	278	276	280	280	26
180°	278	278	278	278	278	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8
2.5°	188.8	188.8	190.1	190.6	191.9	192.5	193.7	194.9	198.6	199.1	200.4
5°	184.0	186.5	194.3	197.3	205.8	217.4	222.2	230.2	246.6	251.4	254.4
7.5°	176.7	182.2	201.6	206.5	227.7	258.1	270.8	287.8	313.9	326.7	337.0
10°	165.2	176.7	211.4	222.9	257.4	303.6	327.3	351.0	390.5	408.0	414.7
12.5°	152.4	171.3	221.7	237.4	287.2	354.6	383.2	409.3	454.2	477.9	481.5
15°	137.9	163.4	231.4	254.4	318.8	397.1	428.7	460.9	502.8	519.7	524.0
17.5°	125.1	157.3	240.5	264.8	343.1	435.4	467.6	494.3	528.3	539.8	542.8
20°	109.3	147.5	246.6	278.2	368.6	463.4	494.3	514.9	538.0	545.3	546.5
22.5°	97.8	137.2	250.2	283.0	385.6	480.3	506.4	522.8	538.6	541.0	541.6
25°	88.1	125.7	249.6	288.5	400.2	490.6	510.7	522.8	532.0	533.1	533.1
27.5°	78.9	113.0	247.1	289.7	411.1	493.0	508.9	517.4	521.6	524.0	524.0
30°	71.1	100.8	241.0	287.2	415.9	490.6	503.4	507.6	511.9	515.6	517.4
32.5°	65.0	89.2	232.0	282.3	416.6	484.5	493.7	496.1	502.2	510.7	513.7
35°	59.5	77.8	221.7	275.7	412.9	474.8	480.9	483.4	495.5	508.2	512.5
37.5°	54.0	69.2	208.3	264.1	407.4	463.4	467.6	471.9	490.6	505.8	510.7
40°	48.6	61.9	192.5	251.4	399.0	449.3	453.0	459.6	484.5	502.2	507.1
42.5°	44.4	55.8	175.5	238.1	388.0	433.6	439.0	448.8	477.3	496.1	501.5
45°	40.6	49.8	157.3	219.8	374.0	417.2	425.1	438.5	468.8	487.0	491.9
47.5°	37.0	45.5	138.5	201.0	358.9	400.8	411.1	426.2	457.3	474.8	479.1
50°	34.0	41.3	119.7	180.9	342.5	383.2	395.3	411.1	442.7	459.1	464.5
52.5°	31.6	37.7	102.0	160.9	323.7	365.0	378.9	395.3	425.1	440.8	444.5
55°	29.1	34.6	86.8	139.7	304.2	345.5	360.7	376.5	405.6	419.0	421.4
57.5°	28.0	32.2	74.0	119.7	283.6	323.7	340.6	355.2	382.5	392.8	395.3
60°	26.1	30.3	64.4	102.6	261.1	303.0	317.6	332.2	355.2	363.7	365.6
62.5°	24.3	29.1	57.1	86.3	238.1	278.7	293.3	306.7	326.0	332.2	334.5
65°	23.1	28.0	51.6	74.0	214.3	253.2	267.7	279.3	295.1	301.1	302.4
67.5°	21.9	26.7	47.3	63.7	190.6	227.7	238.6	249.6	261.7	267.7	268.4
70°	20.0	25.5	43.7	56.5	166.4	198.6	207.6	219.2	228.9	232.0	233.8
72.5°	18.8	23.7	41.3	51.1	141.5	170.6	179.1	185.8	194.3	197.3	197.3
75°	17.0	21.3	38.8	45.5	116.0	139.7	146.9	153.6	160.3	161.5	159.7
77.5°	15.2	18.8	33.4	38.3	90.5	110.5	116.6	120.2	125.7	126.9	127.5
80°	12.8	16.4	26.1	29.8	65.6	81.4	85.6	88.6	93.5	93.5	94.8
82.5°	9.7	12.8	18.8	21.3	44.4	55.8	59.5	61.4	64.4	64.4	64.4
85°	6.1	7.9	12.1	13.9	26.7	34.0	36.5	37.0	39.5	40.1	40.1
87.5°	3.1	4.3	7.9	8.5	13.9	17.7	17.7	18.8	18.8	18.2	17.7
90°	1.9	3.3	4.9	5.2	8.2	12.2	14.2	12.6	9.4	7.1	7.1
92.5°	7.4	20.1	32.9	36.0	50.6	70.1	79.8	70.0	50.2	35.5	34.0
95°	17.9	41.1	64.4	70.1	124.6	197.1	233.4	208.2	158.0	120.3	116.0
97.5°	31.0	51.4	71.9	77.0	167.7	288.7	349.2	333.4	301.6	277.8	269.6
100°	41.0	59.6	78.2	82.8	183.5	317.7	384.9	386.1	388.4	390.1	380.4
102.5°	49.6	67.0	84.3	88.6	190.7	326.9	394.9	415.2	455.7	486.0	477.7
105°	64.2	78.8	93.5	97.2	196.1	327.9	393.8	439.2	529.9	597.9	593.5
107.5°	79.1	92.8	106.4	109.9	197.1	313.4	371.5	434.7	561.3	656.2	657.2
110°	89.2	101.5	113.9	116.9	195.6	300.4	352.8	423.5	565.0	671.1	675.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	99.0	110.8	122.6	125.5	195.6	289.1	335.8	408.2	553.0	661.6	668.7
115°	114.0	124.8	135.7	138.4	197.4	276.1	315.4	385.1	524.6	629.3	639.1
117.5°	128.7	138.6	148.4	150.9	201.1	268.0	301.5	364.4	490.2	584.6	595.6
120°	137.3	146.6	155.9	158.2	204.1	265.3	295.9	353.4	468.4	554.7	565.4
122.5°	145.7	155.1	164.5	166.8	208.4	263.9	291.6	343.3	447.0	524.6	535.1
125°	158.6	167.1	175.6	177.8	214.2	262.7	286.9	330.9	418.9	484.9	494.6
127.5°	169.0	177.7	186.3	188.5	220.0	262.0	283.0	320.8	396.3	452.9	461.1
130°	174.6	183.9	193.2	195.5	224.2	262.4	281.5	315.2	382.4	432.8	440.4
132.5°	180.4	189.7	199.0	201.3	227.6	262.7	280.2	310.3	370.5	415.6	422.4
135°	189.0	197.4	205.9	208.0	231.4	262.4	278.0	303.1	353.6	391.4	397.2
137.5°	197.8	206.1	214.5	216.6	237.0	264.0	277.6	298.9	341.5	373.5	378.3
140°	205.0	212.7	220.5	222.4	240.3	264.3	276.3	294.7	331.6	359.2	363.6
142.5°	210.6	217.8	224.8	226.7	243.2	265.2	276.3	292.5	324.8	349.0	352.8
145°	219.2	225.4	231.6	233.2	246.9	265.3	274.4	287.7	314.1	333.9	336.8
147.5°	227.8	233.9	239.9	241.4	252.4	267.1	274.4	284.9	305.7	321.2	323.7
150°	233.4	238.8	244.3	245.7	255.3	268.0	274.4	283.2	300.8	314.0	316.0
152.5°	239.1	243.3	247.5	248.5	257.2	268.7	274.4	282.0	297.0	308.2	309.7
155°	247.7	250.8	253.9	254.6	261.2	270.0	274.4	280.4	292.4	301.3	302.3
157.5°	254.1	257.1	260.1	260.8	265.3	271.4	274.4	279.1	288.4	295.4	296.1
160°	258.4	260.7	263.0	263.6	267.2	272.0	274.4	278.4	286.4	292.4	292.7
162.5°	262.7	264.4	266.1	266.6	269.2	272.7	274.4	277.8	284.5	289.6	289.9
165°	267.4	268.9	270.6	270.9	272.1	273.6	274.4	276.8	281.6	285.2	285.6
167.5°	271.6	272.4	273.1	273.3	274.3	275.6	276.3	277.9	281.1	283.4	283.6
170°	274.4	275.2	275.9	276.1	276.2	276.3	276.3	277.9	281.1	283.4	283.4
172.5°	275.9	276.1	276.3	276.3	276.3	276.3	276.3	277.5	280.0	281.9	281.7
175°	278.0	278.0	278.0	278.0	277.4	276.6	276.3	277.1	278.7	279.9	279.9
177.5°	278.0	278.0	278.0	278.0	277.5	277.0	276.7	277.3	278.6	279.5	279.3
180°	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	188.8	188.8
2.5°	201.6	200.4
5°	259.3	260.5
7.5°	349.1	348.6
10°	434.2	439.6
12.5°	496.1	497.3
15°	533.8	536.2
17.5°	548.3	549.0
20°	549.0	547.7
22.5°	542.3	541.0
25°	534.4	533.8
27.5°	527.1	527.7
30°	524.0	525.9
32.5°	524.0	527.1
35°	525.3	528.3
37.5°	524.6	528.3
40°	522.2	526.4
42.5°	515.6	518.6
45°	505.2	508.9
47.5°	491.9	494.3
50°	474.8	477.3
52.5°	453.6	454.2
55°	428.1	430.5
57.5°	400.8	401.3
60°	370.4	372.2
62.5°	338.3	338.3
65°	304.2	305.4
67.5°	269.0	272.0
70°	233.2	233.8
72.5°	198.0	198.0
75°	161.5	162.1
77.5°	126.9	126.9
80°	94.1	94.8
82.5°	65.0	66.2
85°	40.6	40.6
87.5°	18.8	17.0
90°	7.1	7.1
92.5°	28.4	22.7
95°	98.9	81.9
97.5°	237.2	204.7
100°	341.7	303.0
102.5°	444.5	411.4
105°	575.7	557.9
107.5°	661.5	665.8
110°	694.3	712.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	697.2	725.8
115°	678.7	718.2
117.5°	639.5	683.4
120°	607.9	650.5
122.5°	577.2	619.2
125°	533.2	572.0
127.5°	493.8	526.4
130°	470.6	500.7
132.5°	449.4	476.5
135°	420.5	443.8
137.5°	397.3	416.4
140°	381.4	399.3
142.5°	368.2	383.6
145°	348.5	360.1
147.5°	333.3	342.9
150°	323.8	331.6
152.5°	315.5	321.4
155°	306.2	310.1
157.5°	298.8	301.5
160°	294.4	295.9
162.5°	291.5	292.9
165°	287.2	288.8
167.5°	284.2	284.9
170°	283.4	283.4
172.5°	281.1	280.6
175°	279.9	279.9
177.5°	278.7	278.0
180°	278.0	278.0



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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	2.44	3.29	3.43	4.30	5.64	15.58	16.43	16.58	17.44	18.78
	3H	3.14	3.91	4.15	4.93	6.29	17.41	18.17	18.41	19.19	20.55
	4H	3.44	4.17	4.46	5.19	6.56	18.04	18.77	19.06	19.79	21.16
	6H	3.70	4.36	4.72	5.39	6.77	18.46	19.13	19.49	20.15	21.53
	8H	3.76	4.40	4.80	5.44	6.82	18.57	19.21	19.61	20.25	21.63
	12H	3.78	4.39	4.82	5.42	6.83	18.63	19.24	19.67	20.28	21.68
4H	2H	9.63	10.36	10.65	11.38	12.75	15.86	16.58	16.88	17.60	18.97
	3H	11.20	11.81	12.23	12.86	14.24	17.89	18.49	18.92	19.54	20.93
	4H	11.30	11.85	12.34	12.89	14.30	18.64	19.20	19.68	20.24	21.65
	6H	11.31	11.79	12.36	12.85	14.25	19.17	19.65	20.22	20.71	22.11
	8H	11.28	11.73	12.33	12.79	14.21	19.32	19.77	20.38	20.83	22.25
	12H	11.24	11.65	12.31	12.72	14.14	19.41	19.81	20.48	20.89	22.31
8H	4H	12.73	13.18	13.78	14.24	15.65	18.70	19.15	19.75	20.21	21.63
	6H	12.97	13.34	14.05	14.44	15.86	19.32	19.69	20.39	20.79	22.20
	8H	12.99	13.32	14.07	14.40	15.83	19.53	19.86	20.61	20.94	22.37
	12H	12.96	13.25	14.04	14.32	15.80	19.67	19.95	20.75	21.03	22.51
12H	4H	12.87	13.27	13.94	14.35	15.77	18.66	19.06	19.73	20.13	21.56
	6H	13.23	13.55	14.31	14.64	16.07	19.30	19.63	20.38	20.71	22.15
	8H	13.30	13.58	14.38	14.66	16.13	19.53	19.81	20.61	20.89	22.36