

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: P937459

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937459
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-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: -

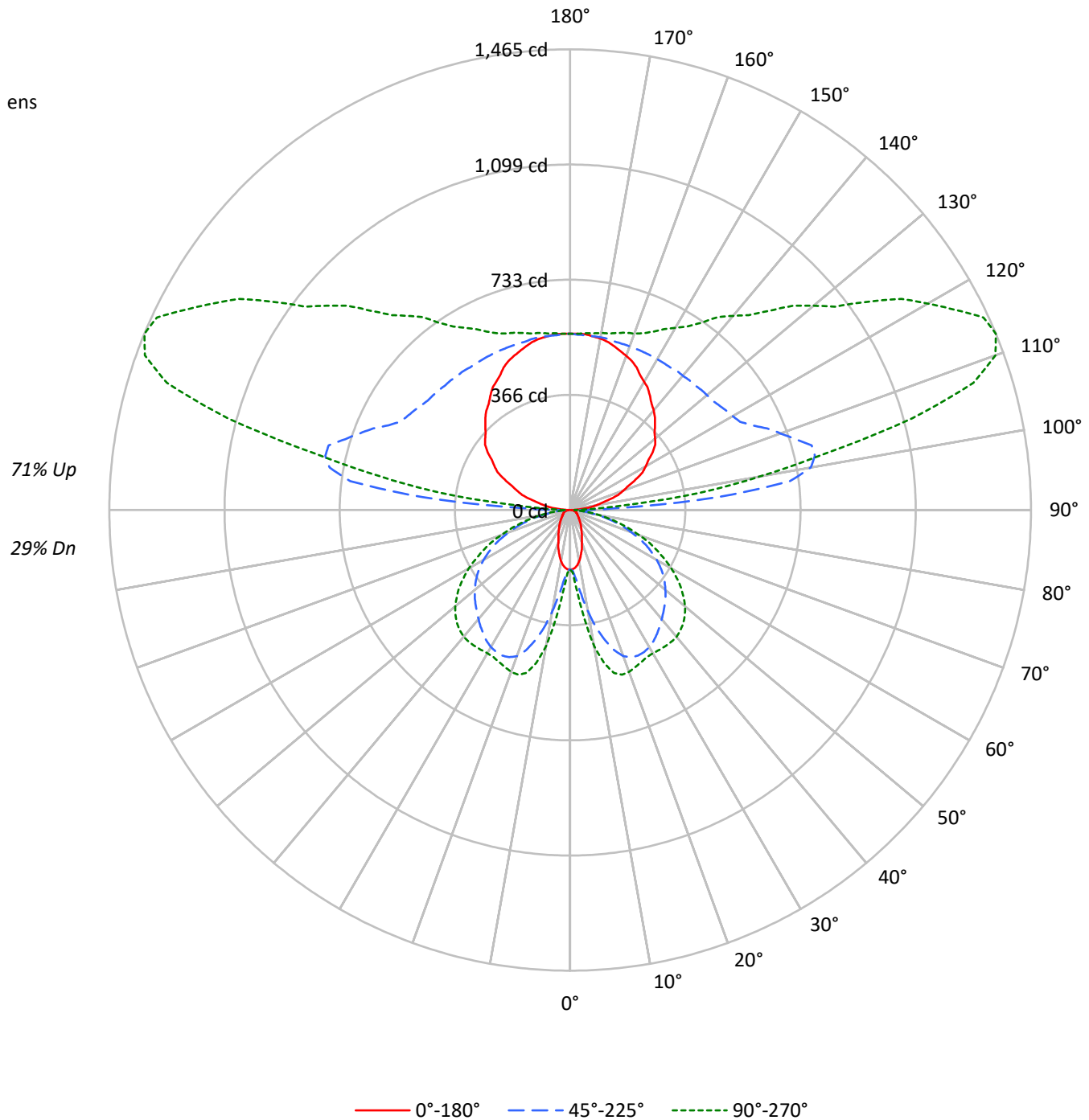
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5099.7 lumens
Efficiency: N/A
Efficacy: 123.8 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-Indirect

Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (A_{in}): 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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	12	10	8	6

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	0.5
10°-20°	108.3	2.1
20°-30°	189.4	3.7
30°-40°	243.8	4.8
40°-50°	272.3	5.3
50°-60°	260.8	5.1
60°-70°	206.7	4.1
70°-80°	121.5	2.4
80°-90°	35.9	0.7
90°-100°	273.4	5.4
100°-110°	718.9	14.1
110°-120°	745.4	14.6
120°-130°	597.9	11.7
130°-140°	469.2	9.2
140°-150°	360.1	7.1
150°-160°	259.3	5.1
160°-170°	158.7	3.1
170°-180°	53.6	1.1
0°-30°	322.1	6.3
0°-40°	565.9	11.1
0°-60°	1099.0	21.5
0°-90°	1463.1	28.7
90°-120°	1737.8	34.1
90°-150°	3165.0	62.1
90°-180°	3637.0	71.3
0°-180°	5099.7	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°	4	10	29	14	14	4
95°	36	142	471	243	165	40
105°	130	196	795	1207	1126	137
115°	230	279	637	1270	1450	227
125°	320	359	579	978	1154	284
135°	381	420	561	790	896	295
145°	442	471	554	674	727	277
155°	500	514	554	608	626	230
165°	540	547	554	576	583	152
175°	561	561	558	565	565	53
180°	561	561	561	561	561	



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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°	3.8	6.8	9.8	10.5	16.6	24.6	28.6	25.4	19.1	14.3	14.3
92.5°	15.0	40.6	66.3	72.7	102.2	141.5	161.1	141.2	101.4	71.5	68.7
95°	36.1	83.0	129.9	141.6	251.4	397.7	471.0	420.3	318.9	242.9	234.3
97.5°	62.5	103.8	145.2	155.5	338.6	582.7	704.8	672.7	608.6	560.6	544.2
100°	82.8	120.3	157.8	167.2	370.4	641.3	776.7	779.1	783.7	787.2	767.7
102.5°	100.1	135.1	170.1	178.9	385.0	659.7	797.1	837.9	919.6	980.7	964.0
105°	129.5	159.1	188.7	196.1	395.7	661.8	794.8	886.3	1069.4	1206.7	1197.7
107.5°	159.7	187.3	214.9	221.8	397.7	632.3	749.6	877.3	1132.6	1324.2	1326.3
110°	179.9	204.9	229.8	236.1	394.7	606.2	711.9	854.7	1140.1	1354.2	1363.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	200.0	223.7	247.4	253.4	394.8	583.4	677.7	823.8	1115.9	1335.0	1349.4
115°	230.0	251.9	273.8	279.3	398.5	557.3	636.7	777.4	1058.9	1269.9	1289.9
117.5°	259.8	279.7	299.6	304.6	405.9	540.9	608.4	735.4	989.4	1180.0	1202.1
120°	277.1	295.8	314.5	319.3	411.8	535.4	597.1	713.2	945.3	1119.3	1140.9
122.5°	294.1	313.0	331.9	336.6	420.5	532.5	588.4	692.9	901.9	1058.7	1079.9
125°	320.1	337.3	354.5	358.8	432.2	530.1	579.0	667.8	845.3	978.5	998.0
127.5°	341.1	358.4	375.9	380.3	443.9	528.7	571.2	647.4	799.8	914.1	930.6
130°	352.4	371.1	389.9	394.6	452.4	529.6	568.2	636.1	771.7	873.5	888.7
132.5°	364.1	382.8	401.5	406.2	459.3	530.1	565.5	626.2	747.7	838.8	852.5
135°	381.4	398.5	415.6	419.8	466.9	529.6	561.0	611.9	713.5	789.8	801.6
137.5°	399.1	416.0	432.8	437.1	478.1	532.9	560.2	603.2	689.2	753.7	763.3
140°	413.7	429.3	444.9	448.8	485.1	533.4	557.6	594.7	669.0	724.8	733.7
142.5°	425.1	439.5	453.8	457.5	490.9	535.3	557.6	590.2	655.4	704.4	712.2
145°	442.4	454.9	467.4	470.6	498.4	535.4	553.9	580.6	633.9	673.9	679.8
147.5°	459.7	472.0	484.1	487.2	509.4	539.0	553.9	574.9	616.9	648.4	653.3
150°	471.0	482.0	493.0	495.8	515.2	541.0	553.9	571.6	607.0	633.6	637.5
152.5°	482.6	491.0	499.4	501.5	518.9	542.2	553.9	569.0	599.2	621.9	624.9
155°	500.0	506.2	512.4	514.0	527.3	545.0	553.9	565.9	590.0	608.0	610.0
157.5°	512.8	518.8	524.8	526.4	535.5	547.7	553.9	563.2	581.9	596.0	597.3
160°	521.5	526.2	530.8	532.0	539.3	549.0	553.9	561.9	577.9	590.0	590.8
162.5°	530.1	533.6	537.1	538.0	543.3	550.3	553.9	560.7	574.1	584.3	585.0
165°	539.5	542.6	545.8	546.6	549.1	552.2	553.9	558.8	568.4	575.7	576.5
167.5°	548.2	549.7	551.2	551.6	553.6	556.2	557.6	560.7	567.1	571.9	572.2
170°	553.9	555.3	556.9	557.2	557.3	557.5	557.6	560.7	567.1	571.9	571.9
172.5°	556.9	557.2	557.5	557.6	557.6	557.6	557.6	560.1	565.1	568.9	568.6
175°	561.0	561.0	561.0	561.0	559.8	558.3	557.6	559.2	562.4	564.7	564.7
177.5°	561.0	561.0	561.0	561.0	560.1	558.9	558.3	559.6	562.1	564.0	563.6
180°	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0



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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°	14.3	14.3
92.5°	57.3	45.9
95°	199.8	165.3
97.5°	478.6	413.0
100°	689.6	611.4
102.5°	897.1	830.2
105°	1161.7	1125.7
107.5°	1335.0	1343.7
110°	1401.1	1438.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1407.0	1464.6
115°	1369.7	1449.5
117.5°	1290.6	1379.1
120°	1226.9	1312.8
122.5°	1164.8	1249.6
125°	1076.1	1154.4
127.5°	996.6	1062.5
130°	949.6	1010.5
132.5°	907.0	961.6
135°	848.6	895.7
137.5°	801.9	840.4
140°	769.7	805.7
142.5°	743.1	774.1
145°	703.2	726.7
147.5°	672.6	692.0
150°	653.3	669.0
152.5°	636.8	648.7
155°	617.9	625.7
157.5°	602.9	608.4
160°	594.0	597.1
162.5°	588.1	591.1
165°	579.7	582.8
167.5°	573.5	574.9
170°	571.9	571.9
172.5°	567.4	566.3
175°	564.7	564.7
177.5°	562.4	561.0
180°	561.0	561.0



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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	0.56	1.28	1.68	2.39	3.94	13.71	14.42	14.82	15.54	17.08
	3H	1.26	1.90	2.38	3.02	4.58	15.52	16.16	16.64	17.28	18.84
	4H	1.55	2.16	2.68	3.28	4.85	16.15	16.76	17.28	17.88	19.45
	6H	1.79	2.36	2.94	3.48	5.06	16.56	17.12	17.70	18.25	19.82
	8H	1.86	2.39	3.00	3.53	5.10	16.67	17.20	17.81	18.34	19.91
	12H	1.87	2.38	3.02	3.51	5.11	16.72	17.23	17.87	18.37	19.96
4H	2H	7.74	8.35	8.88	9.47	11.04	13.96	14.58	15.10	15.70	17.26
	3H	9.30	9.81	10.44	10.95	12.53	15.98	16.49	17.13	17.64	19.22
	4H	9.38	9.85	10.53	10.99	12.59	16.73	17.20	17.88	18.34	19.94
	6H	9.39	9.79	10.54	10.95	12.54	17.25	17.65	18.41	18.81	20.40
	8H	9.36	9.74	10.52	10.89	12.49	17.40	17.78	18.56	18.93	20.53
	12H	9.31	9.65	10.48	10.81	12.42	17.48	17.82	18.65	18.98	20.59
8H	4H	10.81	11.18	11.96	12.33	13.94	16.78	17.16	17.94	18.31	19.91
	6H	11.04	11.35	12.22	12.55	14.15	17.39	17.70	18.57	18.89	20.50
	8H	11.06	11.33	12.24	12.50	14.12	17.60	17.87	18.78	19.04	20.67
	12H	11.02	11.26	12.21	12.43	14.08	17.73	17.97	18.91	19.14	20.79
12H	4H	10.94	11.28	12.11	12.44	14.05	16.73	17.07	17.90	18.23	19.84
	6H	11.29	11.57	12.48	12.74	14.36	17.37	17.64	18.55	18.82	20.44
	8H	11.36	11.60	12.54	12.77	14.42	17.59	17.83	18.77	19.00	20.65