

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: P937484

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937484
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-B2750-1D-UNV-STD-W-4-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

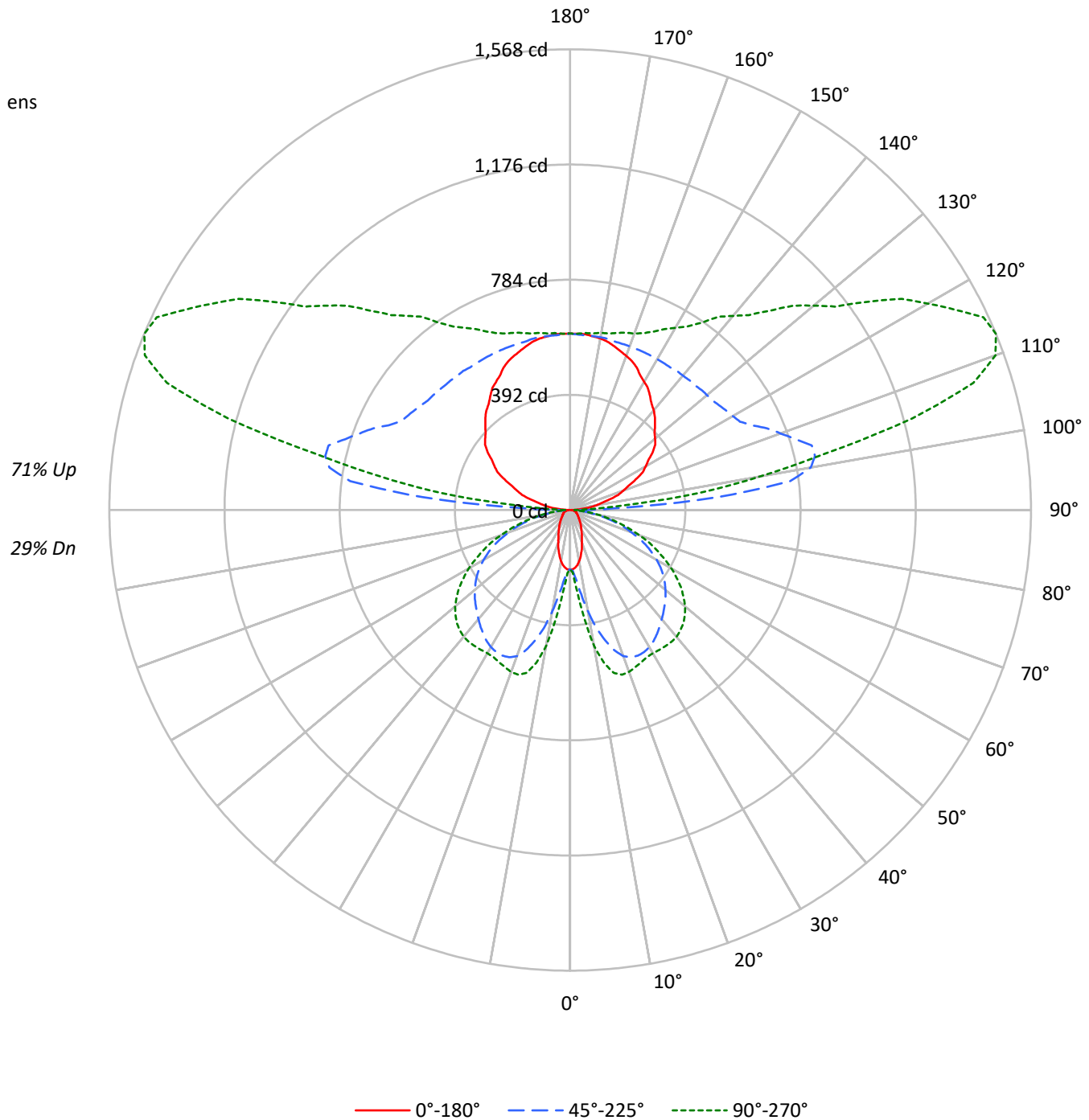
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5459.3 lumens
Efficiency: N/A
Efficacy: 132.5 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

TEST NUMBER: P937484
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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	0
RCR																		
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1875	1875	1875
5°	1831	2166	2522
10°	1659	3156	4180
15°	1408	4120	5048
20°	1146	4772	5144
25°	954	4989	5040
30°	804	5017	5031
35°	709	4929	5160
40°	617	4818	5295
45°	557	4733	5316
50°	510	4658	5228
55°	487	4548	4996
60°	496	4343	4630
65°	515	4032	4126
70°	543	3510	3487
75°	597	2854	2720
80°	641	1973	1835
85°	538	1044	937

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5316 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	0.5
10°-20°	115.9	2.1
20°-30°	202.7	3.7
30°-40°	261.0	4.8
40°-50°	291.5	5.3
50°-60°	279.2	5.1
60°-70°	221.2	4.1
70°-80°	130.1	2.4
80°-90°	38.4	0.7
90°-100°	292.7	5.4
100°-110°	769.6	14.1
110°-120°	798.0	14.6
120°-130°	640.1	11.7
130°-140°	502.2	9.2
140°-150°	385.5	7.1
150°-160°	277.6	5.1
160°-170°	169.9	3.1
170°-180°	57.4	1.1
0°-30°	344.8	6.3
0°-40°	605.8	11.1
0°-60°	1176.5	21.5
0°-90°	1566.3	28.7
90°-120°	1860.4	34.1
90°-150°	3388.2	62.1
90°-180°	3893.0	71.3
0°-180°	5459.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	202	202	202	202	202	
5°	197	211	238	269	279	18
15°	148	272	459	556	574	41
25°	94	309	547	571	571	43
35°	64	295	515	544	566	40
45°	44	235	455	521	545	34
55°	31	150	386	449	461	28
65°	25	79	287	322	327	24
75°	18	49	157	173	174	19
85°	6	15	39	43	44	7
90°	4	11	31	15	15	4
95°	39	152	504	260	177	43
105°	139	210	851	1292	1205	147
115°	246	299	682	1360	1552	243
125°	343	384	620	1048	1236	304
135°	408	449	601	846	959	316
145°	474	504	593	721	778	297
155°	535	550	593	651	670	246
165°	578	585	593	616	624	163
175°	601	601	597	605	605	57
180°	601	601	601	601	601	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1
2.5°	202.1	202.1	203.5	204.1	205.4	206.1	207.4	208.6	212.6	213.2	214.5
5°	197.0	199.6	208.0	211.2	220.4	232.8	237.9	246.4	264.0	269.1	272.4
7.5°	189.1	195.1	215.8	221.0	243.8	276.3	289.9	308.1	336.0	349.7	360.8
10°	176.8	189.1	226.3	238.6	275.6	325.0	350.4	375.8	418.0	436.8	444.0
12.5°	163.2	183.3	237.3	254.2	307.5	379.7	410.2	438.2	486.2	511.6	515.5
15°	147.6	174.9	247.7	272.4	341.3	425.1	458.9	493.4	538.3	556.4	561.0
17.5°	133.9	168.4	257.5	283.4	367.3	466.1	500.6	529.2	565.5	577.9	581.1
20°	117.1	157.9	264.0	297.8	394.6	496.0	529.2	551.3	576.0	583.7	585.1
22.5°	104.7	146.9	267.8	302.9	412.8	514.2	542.2	559.7	576.6	579.2	579.8
25°	94.3	134.6	267.2	308.8	428.4	525.2	546.7	559.7	569.5	570.7	570.7
27.5°	84.5	120.9	264.5	310.1	440.1	527.8	544.8	553.9	558.4	561.0	561.0
30°	76.1	107.9	258.0	307.5	445.3	525.2	538.9	543.4	548.0	551.9	553.9
32.5°	69.6	95.5	248.4	302.2	445.9	518.7	528.5	531.1	537.6	546.7	549.9
35°	63.7	83.2	237.3	295.2	442.1	508.3	514.8	517.4	530.4	544.1	548.6
37.5°	57.8	74.1	223.0	282.8	436.1	496.0	500.6	505.1	525.2	541.5	546.7
40°	52.0	66.3	206.1	269.1	427.1	481.0	485.0	492.1	518.7	537.6	542.8
42.5°	47.5	59.8	187.9	254.8	415.4	464.2	470.0	480.4	511.0	531.1	536.9
45°	43.5	53.3	168.4	235.3	400.4	446.6	455.0	469.4	501.8	521.3	526.6
47.5°	39.6	48.7	148.3	215.2	384.2	429.1	440.1	456.3	489.5	508.3	512.9
50°	36.4	44.2	128.1	193.7	366.7	410.2	423.2	440.1	473.9	491.5	497.3
52.5°	33.8	40.3	109.2	172.3	346.5	390.7	405.6	423.2	455.0	471.9	475.9
55°	31.2	37.0	92.9	149.5	325.7	369.9	386.1	403.0	434.2	448.6	451.2
57.5°	29.9	34.5	79.3	128.1	303.6	346.5	364.6	380.2	409.5	420.5	423.2
60°	27.9	32.5	68.9	109.9	279.6	324.4	340.0	355.6	380.2	389.3	391.4
62.5°	26.0	31.2	61.1	92.3	254.8	298.4	314.0	328.3	349.0	355.6	358.1
65°	24.7	29.9	55.2	79.3	229.5	271.0	286.6	299.0	315.9	322.4	323.7
67.5°	23.4	28.6	50.7	68.2	204.1	243.8	255.4	267.2	280.1	286.6	287.3
70°	21.4	27.3	46.8	60.5	178.1	212.6	222.3	234.7	245.1	248.4	250.3
72.5°	20.2	25.4	44.2	54.7	151.5	182.7	191.8	198.9	208.0	211.2	211.2
75°	18.2	22.8	41.6	48.7	124.1	149.5	157.3	164.4	171.6	172.9	170.9
77.5°	16.3	20.2	35.8	41.0	96.9	118.3	124.8	128.7	134.6	135.9	136.5
80°	13.7	17.5	27.9	31.9	70.3	87.1	91.7	94.9	100.1	100.1	101.5
82.5°	10.4	13.7	20.2	22.8	47.5	59.8	63.7	65.7	68.9	68.9	68.9
85°	6.5	8.4	13.0	14.9	28.6	36.4	39.1	39.6	42.2	42.9	42.9
87.5°	3.3	4.6	8.4	9.1	14.9	18.9	18.9	20.2	20.2	19.5	18.9
90°	4.1	7.3	10.5	11.2	17.7	26.4	30.6	27.2	20.4	15.3	15.3
92.5°	16.1	43.5	70.9	77.8	109.4	151.5	172.5	151.2	108.5	76.6	73.5
95°	38.7	88.9	139.1	151.6	269.1	425.8	504.2	449.9	341.4	260.0	250.8
97.5°	66.9	111.1	155.4	166.5	362.5	623.8	754.5	720.2	651.6	600.1	582.6
100°	88.7	128.8	168.9	179.0	396.5	686.5	831.5	834.0	839.0	842.7	821.8
102.5°	107.2	144.7	182.1	191.5	412.1	706.2	853.3	897.0	984.4	1049.9	1032.0
105°	138.7	170.4	202.0	210.0	423.6	708.4	850.9	948.8	1144.8	1291.8	1282.2
107.5°	170.9	200.5	230.0	237.4	425.8	676.8	802.4	939.2	1212.5	1417.6	1419.9
110°	192.6	219.4	246.0	252.7	422.5	648.9	762.1	914.9	1220.6	1449.7	1459.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	214.1	239.4	264.8	271.2	422.7	624.5	725.5	881.9	1194.6	1429.2	1444.6
115°	246.2	269.7	293.1	299.0	426.6	596.6	681.6	832.3	1133.5	1359.5	1380.8
117.5°	278.1	299.4	320.7	326.1	434.5	579.1	651.4	787.3	1059.2	1263.2	1286.8
120°	296.6	316.7	336.7	341.8	440.9	573.2	639.2	763.5	1011.9	1198.3	1221.3
122.5°	314.8	335.1	355.3	360.4	450.2	570.1	629.9	741.8	965.5	1133.3	1156.0
125°	342.6	361.0	379.5	384.1	462.7	567.4	619.9	714.9	904.9	1047.5	1068.4
127.5°	365.1	383.7	402.4	407.1	475.2	566.0	611.4	693.0	856.2	978.6	996.2
130°	377.2	397.3	417.3	422.4	484.3	567.0	608.2	680.9	826.2	935.1	951.4
132.5°	389.7	409.8	429.8	434.9	491.7	567.4	605.3	670.4	800.4	898.0	912.6
135°	408.3	426.6	444.9	449.4	499.8	567.0	600.6	655.0	763.9	845.5	858.1
137.5°	427.2	445.4	463.4	467.9	511.8	570.5	599.7	645.7	737.8	806.9	817.2
140°	442.9	459.6	476.3	480.4	519.3	571.0	596.9	636.6	716.2	775.9	785.5
142.5°	455.0	470.4	485.9	489.7	525.5	573.1	596.9	631.8	701.7	754.1	762.4
145°	473.6	487.0	500.4	503.8	533.5	573.2	592.9	621.5	678.6	721.4	727.7
147.5°	492.2	505.2	518.2	521.5	545.4	577.0	592.9	615.4	660.4	694.1	699.3
150°	504.2	516.0	527.8	530.8	551.6	579.2	592.9	611.9	649.8	678.3	682.5
152.5°	516.7	525.6	534.6	536.8	555.5	580.4	592.9	609.1	641.5	665.8	669.0
155°	535.3	541.9	548.6	550.2	564.4	583.4	592.9	605.8	631.6	650.9	653.0
157.5°	548.9	555.4	561.8	563.5	573.3	586.3	592.9	602.9	623.0	638.0	639.4
160°	558.2	563.3	568.2	569.5	577.3	587.7	592.9	601.6	618.7	631.6	632.5
162.5°	567.4	571.2	575.0	576.0	581.6	589.2	592.9	600.2	614.6	625.5	626.3
165°	577.5	580.9	584.3	585.2	587.8	591.2	592.9	598.2	608.5	616.3	617.2
167.5°	586.8	588.5	590.1	590.5	592.6	595.5	596.9	600.3	607.1	612.2	612.6
170°	592.9	594.5	596.1	596.5	596.6	596.8	596.9	600.3	607.1	612.2	612.2
172.5°	596.1	596.5	596.8	596.9	596.9	596.9	596.9	599.6	604.9	609.0	608.7
175°	600.6	600.6	600.6	600.6	599.3	597.7	596.9	598.6	602.0	604.6	604.6
177.5°	600.6	600.6	600.6	600.6	599.6	598.4	597.7	599.0	601.7	603.8	603.4
180°	600.6	600.6	600.6	600.6	600.6	600.6	600.6	600.6	600.6	600.6	600.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	202.1	202.1
2.5°	215.8	214.5
5°	277.6	278.9
7.5°	373.7	373.2
10°	464.8	470.6
12.5°	531.1	532.4
15°	571.4	574.0
17.5°	587.0	587.7
20°	587.7	586.3
22.5°	580.5	579.2
25°	572.1	571.4
27.5°	564.2	564.9
30°	561.0	563.0
32.5°	561.0	564.2
35°	562.3	565.5
37.5°	561.6	565.5
40°	559.0	563.6
42.5°	551.9	555.1
45°	540.8	544.8
47.5°	526.6	529.2
50°	508.3	511.0
52.5°	485.6	486.2
55°	458.3	460.9
57.5°	429.1	429.7
60°	396.5	398.5
62.5°	362.1	362.1
65°	325.7	326.9
67.5°	288.0	291.2
70°	249.6	250.3
72.5°	211.9	211.9
75°	172.9	173.5
77.5°	135.9	135.9
80°	100.8	101.5
82.5°	69.6	70.8
85°	43.5	43.5
87.5°	20.2	18.2
90°	15.3	15.3
92.5°	61.3	49.1
95°	213.9	176.9
97.5°	512.3	442.2
100°	738.2	654.6
102.5°	960.4	888.8
105°	1243.6	1205.1
107.5°	1429.2	1438.5
110°	1499.9	1540.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1506.2	1567.8
115°	1466.3	1551.8
117.5°	1381.6	1476.4
120°	1313.4	1405.4
122.5°	1246.9	1337.7
125°	1152.0	1235.8
127.5°	1066.9	1137.4
130°	1016.6	1081.8
132.5°	970.9	1029.4
135°	908.4	958.8
137.5°	858.4	899.6
140°	824.0	862.5
142.5°	795.5	828.7
145°	752.8	777.9
147.5°	720.1	740.8
150°	699.3	716.2
152.5°	681.7	694.5
155°	661.4	669.9
157.5°	645.5	651.4
160°	635.9	639.2
162.5°	629.6	632.8
165°	620.5	623.9
167.5°	614.0	615.4
170°	612.2	612.2
172.5°	607.5	606.2
175°	604.6	604.6
177.5°	602.0	600.6
180°	600.6	600.6



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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	0.80	1.52	1.92	2.63	4.18	13.94	14.66	15.06	15.77	17.32
	3H	1.50	2.14	2.62	3.26	4.82	15.76	16.40	16.88	17.52	19.08
	4H	1.79	2.40	2.93	3.53	5.09	16.38	17.00	17.52	18.12	19.68
	6H	2.04	2.60	3.18	3.72	5.30	16.80	17.36	17.94	18.48	20.06
	8H	2.10	2.64	3.25	3.78	5.35	16.90	17.44	18.05	18.58	20.15
	12H	2.11	2.62	3.26	3.76	5.35	16.96	17.47	18.11	18.60	20.20
4H	2H	7.98	8.59	9.12	9.71	11.27	14.20	14.81	15.34	15.93	17.50
	3H	9.53	10.04	10.68	11.19	12.77	16.22	16.73	17.37	17.88	19.46
	4H	9.62	10.09	10.77	11.23	12.83	16.97	17.44	18.12	18.58	20.17
	6H	9.62	10.03	10.78	11.19	12.78	17.49	17.89	18.64	19.05	20.64
	8H	9.60	9.97	10.75	11.13	12.73	17.64	18.01	18.79	19.17	20.77
	12H	9.55	9.89	10.72	11.05	12.66	17.72	18.06	18.89	19.22	20.83
8H	4H	11.04	11.42	12.20	12.57	14.18	17.02	17.39	18.17	18.55	20.15
	6H	11.28	11.59	12.46	12.78	14.39	17.63	17.94	18.80	19.13	20.73
	8H	11.30	11.57	12.48	12.74	14.36	17.84	18.11	19.02	19.28	20.90
	12H	11.26	11.50	12.44	12.67	14.32	17.97	18.20	19.15	19.37	21.03
12H	4H	11.18	11.52	12.35	12.68	14.29	16.96	17.30	18.13	18.47	20.08
	6H	11.53	11.80	12.71	12.98	14.60	17.61	17.88	18.79	19.05	20.67
	8H	11.59	11.83	12.78	13.00	14.66	17.82	18.06	19.01	19.23	20.89