

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: P937410

Luminaire Tested: SQ4-FB-100U-050D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937410
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-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

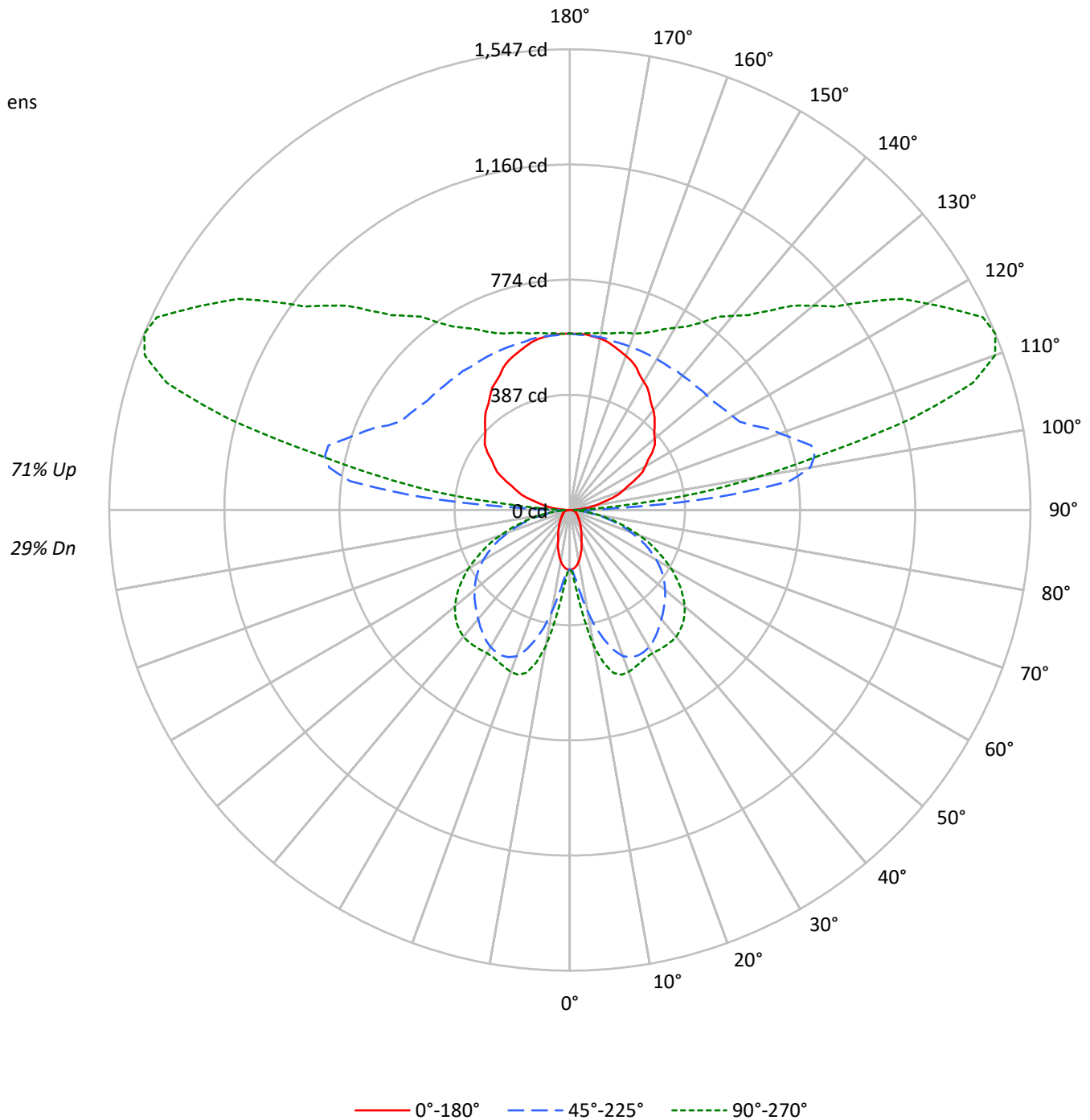
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5386.1 lumens
Efficiency: N/A
Efficacy: 130.7 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				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	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°	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	0.5
10°-20°	114.4	2.1
20°-30°	200.0	3.7
30°-40°	257.5	4.8
40°-50°	287.6	5.3
50°-60°	275.4	5.1
60°-70°	218.3	4.1
70°-80°	128.4	2.4
80°-90°	37.9	0.7
90°-100°	288.8	5.4
100°-110°	759.3	14.1
110°-120°	787.3	14.6
120°-130°	631.5	11.7
130°-140°	495.5	9.2
140°-150°	380.3	7.1
150°-160°	273.9	5.1
160°-170°	167.6	3.1
170°-180°	56.6	1.1
0°-30°	340.2	6.3
0°-40°	597.6	11.1
0°-60°	1160.7	21.5
0°-90°	1545.3	28.7
90°-120°	1835.4	34.1
90°-150°	3342.8	62.1
90°-180°	3841.0	71.3
0°-180°	5386.1	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°	4	11	30	15	15	4
95°	38	150	497	256	175	42
105°	137	207	840	1274	1189	145
115°	243	295	672	1341	1531	240
125°	338	379	612	1033	1219	300
135°	403	443	592	834	946	312
145°	467	497	585	712	768	293
155°	528	543	585	642	661	243
165°	570	577	585	608	616	161
175°	592	592	589	596	596	56
180°	592	592	592	592	592	



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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°	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.9	20.2	15.1	15.1
92.5°	15.9	42.9	70.0	76.8	107.9	149.4	170.2	149.1	107.1	75.5	72.6
95°	38.1	87.7	137.2	149.5	265.5	420.1	497.4	443.9	336.8	256.5	247.4
97.5°	66.0	109.7	153.3	164.2	357.6	615.5	744.3	710.5	642.8	592.1	574.7
100°	87.5	127.1	166.6	176.6	391.2	677.3	820.3	822.8	827.7	831.4	810.8
102.5°	105.7	142.7	179.6	188.9	406.6	696.7	841.9	885.0	971.2	1035.8	1018.1
105°	136.8	168.1	199.3	207.2	418.0	698.9	839.5	936.1	1129.4	1274.4	1265.0
107.5°	168.6	197.8	227.0	234.2	420.1	667.8	791.7	926.6	1196.2	1398.5	1400.8
110°	190.1	216.4	242.7	249.3	416.8	640.2	751.9	902.7	1204.2	1430.3	1440.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	211.2	236.2	261.3	267.6	417.0	616.1	715.8	870.1	1178.6	1410.0	1425.2
115°	242.9	266.1	289.2	295.0	420.8	588.6	672.5	821.1	1118.3	1341.3	1362.3
117.5°	274.4	295.4	316.4	321.7	428.7	571.3	642.6	776.8	1045.0	1246.2	1269.6
120°	292.6	312.4	332.2	337.2	435.0	565.5	630.7	753.2	998.4	1182.2	1204.9
122.5°	310.6	330.6	350.6	355.5	444.2	562.4	621.5	731.8	952.6	1118.1	1140.5
125°	338.0	356.2	374.4	379.0	456.5	559.8	611.6	705.3	892.8	1033.4	1054.1
127.5°	360.2	378.6	397.0	401.6	468.8	558.4	603.2	683.7	844.7	965.5	982.9
130°	372.2	392.0	411.7	416.7	477.8	559.4	600.1	671.8	815.1	922.5	938.6
132.5°	384.5	404.3	424.1	429.1	485.1	559.8	597.2	661.4	789.7	885.9	900.4
135°	402.9	420.8	438.9	443.4	493.1	559.4	592.5	646.3	753.6	834.2	846.6
137.5°	421.5	439.4	457.2	461.7	505.0	562.8	591.7	637.1	727.9	796.1	806.2
140°	437.0	453.4	469.9	474.0	512.3	563.4	588.9	628.1	706.6	765.5	774.9
142.5°	448.9	464.1	479.3	483.2	518.4	565.4	588.9	623.3	692.2	744.0	752.2
145°	467.2	480.5	493.7	497.0	526.4	565.5	585.0	613.2	669.5	711.7	718.0
147.5°	485.6	498.5	511.3	514.5	538.0	569.3	585.0	607.2	651.5	684.8	689.9
150°	497.4	509.1	520.7	523.7	544.2	571.4	585.0	603.7	641.1	669.2	673.3
152.5°	509.7	518.5	527.4	529.6	548.1	572.6	585.0	600.9	632.9	656.9	660.0
155°	528.1	534.6	541.2	542.8	556.9	575.6	585.0	597.7	623.1	642.1	644.2
157.5°	541.6	548.0	554.3	555.9	565.6	578.5	585.0	594.8	614.6	629.4	630.9
160°	550.8	555.7	560.6	561.8	569.6	579.8	585.0	593.5	610.4	623.1	624.0
162.5°	559.8	563.6	567.3	568.2	573.8	581.2	585.0	592.1	606.4	617.1	617.9
165°	569.8	573.1	576.5	577.3	579.9	583.3	585.0	590.1	600.4	608.0	608.9
167.5°	579.0	580.6	582.2	582.6	584.7	587.5	588.9	592.2	598.9	604.0	604.4
170°	585.0	586.5	588.1	588.5	588.6	588.8	588.9	592.2	598.9	604.0	604.0
172.5°	588.1	588.5	588.8	588.9	588.9	588.9	588.9	591.6	596.8	600.8	600.6
175°	592.5	592.5	592.5	592.5	591.3	589.7	588.9	590.6	594.0	596.4	596.4
177.5°	592.5	592.5	592.5	592.5	591.6	590.3	589.7	591.0	593.7	595.7	595.3
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



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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°	15.1	15.1
92.5°	60.5	48.5
95°	211.0	174.6
97.5°	505.4	436.2
100°	728.3	645.8
102.5°	947.5	876.8
105°	1226.9	1189.0
107.5°	1410.0	1419.2
110°	1479.8	1519.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1486.0	1546.8
115°	1446.6	1530.9
117.5°	1363.1	1456.6
120°	1295.8	1386.6
122.5°	1230.2	1319.8
125°	1136.6	1219.2
127.5°	1052.6	1122.2
130°	1002.9	1067.3
132.5°	957.9	1015.6
135°	896.2	946.0
137.5°	846.9	887.6
140°	813.0	850.9
142.5°	784.9	817.6
145°	742.7	767.5
147.5°	710.4	730.9
150°	689.9	706.6
152.5°	672.5	685.2
155°	652.6	660.9
157.5°	636.8	642.6
160°	627.3	630.7
162.5°	621.1	624.3
165°	612.2	615.6
167.5°	605.7	607.2
170°	604.0	604.0
172.5°	599.3	598.1
175°	596.4	596.4
177.5°	594.0	592.5
180°	592.5	592.5



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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	0.75	1.47	1.87	2.58	4.13	13.90	14.61	15.01	15.73	17.27
	3H	1.45	2.09	2.57	3.22	4.78	15.71	16.35	16.83	17.47	19.03
	4H	1.74	2.36	2.88	3.48	5.04	16.34	16.95	17.47	18.07	19.64
	6H	1.99	2.55	3.13	3.68	5.25	16.75	17.31	17.89	18.44	20.01
	8H	2.05	2.59	3.20	3.73	5.30	16.86	17.39	18.00	18.53	20.10
	12H	2.06	2.57	3.21	3.71	5.30	16.91	17.42	18.06	18.56	20.15
4H	2H	7.93	8.54	9.07	9.66	11.23	14.15	14.77	15.29	15.89	17.45
	3H	9.49	10.00	10.63	11.14	12.72	16.17	16.68	17.32	17.83	19.41
	4H	9.57	10.04	10.72	11.18	12.78	16.92	17.39	18.07	18.53	20.13
	6H	9.58	9.98	10.73	11.14	12.73	17.44	17.84	18.60	19.00	20.59
	8H	9.55	9.93	10.71	11.08	12.68	17.59	17.97	18.75	19.12	20.72
	12H	9.50	9.84	10.67	11.00	12.61	17.67	18.01	18.84	19.17	20.78
8H	4H	11.00	11.37	12.15	12.52	14.13	16.97	17.35	18.13	18.50	20.10
	6H	11.23	11.54	12.41	12.74	14.34	17.58	17.89	18.76	19.08	20.69
	8H	11.25	11.52	12.43	12.69	14.31	17.79	18.06	18.97	19.23	20.86
	12H	11.21	11.45	12.40	12.62	14.27	17.92	18.16	19.10	19.33	20.98
12H	4H	11.13	11.47	12.30	12.63	14.24	16.92	17.26	18.09	18.42	20.03
	6H	11.49	11.76	12.67	12.93	14.55	17.56	17.83	18.74	19.01	20.63
	8H	11.55	11.79	12.73	12.96	14.61	17.78	18.02	18.96	19.19	20.84