

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: P936644

Luminaire Tested: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

**Test Information**

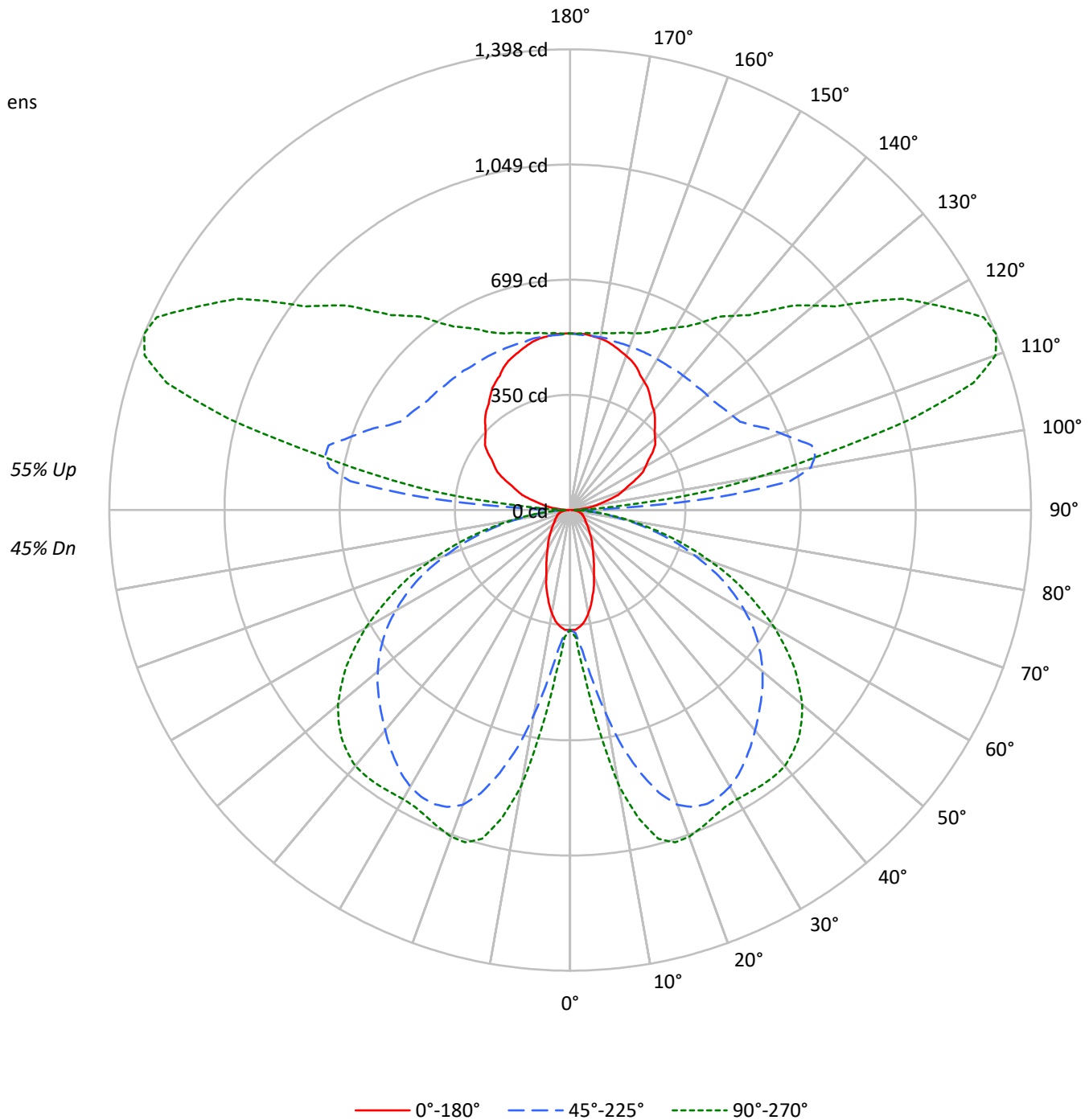
Test Method: LM-79-2019  
Report Number: P936644  
REPORT IS A COMBINATION OF REPORTS P933485 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6288.3 lumens  
Efficiency: N/A  
Efficacy: 110.7 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 56.8  
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

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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	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	24	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°	1687	1687	1687
5°	1649	1951	2269
10°	1495	2844	3761
15°	1271	3715	4541
20°	1035	4305	4628
25°	863	4505	4534
30°	728	4533	4526
35°	643	4458	4643
40°	561	4360	4764
45°	508	4289	4782
50°	466	4224	4703
55°	447	4129	4495
60°	457	3948	4165
65°	476	3673	3714
70°	506	3203	3137
75°	562	2612	2448
80°	614	1811	1649
85°	545	961	845

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4782 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.1	0.7
10°-20°	208.5	3.3
20°-30°	364.8	5.8
30°-40°	469.6	7.5
40°-50°	524.5	8.3
50°-60°	502.4	8.0
60°-70°	398.1	6.3
70°-80°	234.1	3.7
80°-90°	67.1	1.1
90°-100°	261.1	4.2
100°-110°	686.4	10.9
110°-120°	711.7	11.3
120°-130°	570.9	9.1
130°-140°	447.9	7.1
140°-150°	343.8	5.5
150°-160°	247.6	3.9
160°-170°	151.5	2.4
170°-180°	51.2	0.8
0°-30°	620.4	9.9
0°-40°	1090.0	17.3
0°-60°	2116.8	33.7
0°-90°	2816.1	44.8
90°-120°	1659.2	26.4
90°-150°	3021.9	48.1
90°-180°	3472.0	55.2
0°-180°	6288.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	364	364	364	364	364	
5°	354	380	428	484	502	33
15°	266	490	826	1001	1033	74
25°	170	556	984	1027	1028	78
35°	115	531	926	979	1018	72
45°	78	423	819	938	980	61
55°	56	269	695	807	829	51
65°	44	143	516	580	588	44
75°	33	88	283	311	312	34
85°	12	27	70	77	78	12
90°	4	10	27	14	14	4
95°	34	135	450	232	158	38
105°	124	187	759	1152	1075	131
115°	220	267	608	1212	1384	217
125°	306	342	553	934	1102	271
135°	364	401	536	754	855	282
145°	422	449	529	644	694	265
155°	477	491	529	580	597	219
165°	515	522	529	550	556	145
175°	536	536	532	539	539	51
180°	536	536	536	536	536	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7	363.7
2.5°	363.7	363.7	366.1	367.3	369.6	370.8	373.1	375.5	382.5	383.6	386.0
5°	354.4	359.1	374.3	380.1	396.5	418.8	428.1	443.3	474.9	484.2	490.1
7.5°	340.4	350.9	388.3	397.6	438.6	497.1	521.7	554.4	604.7	629.3	649.1
10°	318.1	340.4	407.1	429.3	495.9	584.8	630.5	676.1	752.0	786.0	798.9
12.5°	293.6	329.8	426.9	457.3	553.2	683.1	738.1	788.3	874.9	920.5	927.5
15°	265.5	314.6	445.6	490.1	614.1	764.9	825.8	887.7	968.5	1001.2	1009.4
17.5°	240.9	302.9	463.2	510.0	660.8	838.6	900.6	952.1	1017.6	1039.8	1045.7
20°	210.5	284.2	474.9	535.7	710.0	892.4	952.1	991.9	1036.3	1050.4	1052.7
22.5°	188.3	264.3	481.9	545.0	742.7	925.2	975.5	1007.1	1037.5	1042.2	1043.3
25°	169.6	242.1	480.8	555.6	770.8	945.1	983.7	1007.1	1024.6	1027.0	1027.0
27.5°	152.1	217.6	476.0	557.9	791.9	949.7	980.2	996.6	1004.8	1009.4	1009.4
30°	136.8	194.2	464.4	553.2	801.2	945.1	969.6	977.8	986.0	993.1	996.6
32.5°	125.1	172.0	446.8	543.9	802.4	933.3	951.0	955.6	967.3	983.7	989.5
35°	114.6	149.7	426.9	531.0	795.4	914.7	926.4	931.1	954.4	979.0	987.1
37.5°	104.1	133.3	401.2	508.8	784.8	892.4	900.6	908.8	945.1	974.3	983.7
40°	93.6	119.3	370.8	484.2	768.4	865.6	872.6	885.5	933.3	967.3	976.7
42.5°	85.4	107.6	338.0	458.5	747.4	835.1	845.7	864.4	919.4	955.6	966.1
45°	78.4	95.9	302.9	423.4	720.5	803.6	818.8	844.5	903.0	938.0	947.4
47.5°	71.3	87.7	266.7	387.2	691.3	772.0	791.9	821.1	880.8	914.7	922.9
50°	65.5	79.5	230.4	348.6	659.7	738.1	761.5	791.9	852.7	884.2	894.8
52.5°	60.8	72.6	196.5	309.9	623.4	702.9	729.9	761.5	818.8	849.2	856.2
55°	56.2	66.7	167.3	269.0	586.0	665.5	694.7	725.2	781.3	807.1	811.8
57.5°	53.8	62.0	142.7	230.4	546.2	623.4	656.2	684.3	736.9	756.8	761.5
60°	50.3	58.5	124.0	197.7	503.0	583.7	611.7	639.8	684.3	700.6	704.2
62.5°	46.8	56.2	110.0	166.1	458.5	536.9	564.9	590.7	628.1	639.8	644.5
65°	44.5	53.8	99.4	142.7	412.9	487.7	515.8	538.0	568.5	580.2	582.5
67.5°	42.1	51.5	91.2	122.8	367.3	438.6	459.6	480.8	504.1	515.8	516.9
70°	38.6	49.1	84.2	108.7	320.5	382.5	400.0	422.2	441.0	446.8	450.3
72.5°	36.3	45.6	79.5	98.3	272.5	328.7	345.1	357.9	374.3	380.1	380.1
75°	32.8	40.9	74.8	87.7	223.4	269.0	283.1	295.9	308.8	311.1	307.7
77.5°	29.2	36.3	64.4	73.7	174.3	212.9	224.5	231.6	242.1	244.4	245.7
80°	24.6	31.6	50.3	57.3	126.4	156.7	164.9	170.7	180.2	180.2	182.4
82.5°	18.7	24.6	36.3	40.9	85.4	107.6	114.6	118.2	124.0	124.0	124.0
85°	11.7	15.2	23.4	26.9	51.5	65.5	70.2	71.3	76.0	77.2	77.2
87.5°	5.8	8.2	15.2	16.4	26.9	33.9	33.9	36.3	36.3	35.1	33.9
90°	3.6	6.5	9.3	10.0	15.8	23.5	27.3	24.2	18.2	13.7	13.7
92.5°	14.4	38.8	63.3	69.4	97.6	135.1	153.8	134.8	96.8	68.3	65.6
95°	34.5	79.3	124.0	135.2	240.0	379.8	449.7	401.3	304.5	231.9	223.7
97.5°	59.6	99.1	138.6	148.4	323.3	556.4	672.9	642.3	581.1	535.3	519.6
100°	79.1	114.8	150.6	159.6	353.6	612.3	741.6	743.8	748.3	751.6	732.9
102.5°	95.7	129.1	162.4	170.7	367.5	629.9	761.0	800.0	878.0	936.4	920.4
105°	123.7	151.9	180.2	187.3	377.9	631.9	758.8	846.2	1021.1	1152.1	1143.5
107.5°	152.4	178.8	205.1	211.7	379.7	603.7	715.7	837.6	1081.4	1264.3	1266.4
110°	171.8	195.6	219.5	225.4	376.9	578.8	679.8	816.0	1088.6	1293.0	1301.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	190.9	213.6	236.2	241.9	377.0	557.1	647.0	786.5	1065.5	1274.7	1288.4
115°	219.7	240.6	261.5	266.8	380.5	532.1	607.9	742.3	1010.9	1212.5	1231.5
117.5°	248.0	267.0	286.0	290.8	387.5	516.4	580.9	702.2	944.7	1126.6	1147.7
120°	264.6	282.5	300.4	304.9	393.3	511.2	570.1	680.9	902.5	1068.7	1089.2
122.5°	280.7	298.8	316.8	321.3	401.5	508.4	561.9	661.6	861.2	1010.9	1031.1
125°	305.6	322.0	338.4	342.5	412.6	506.1	552.9	637.6	807.2	934.3	953.0
127.5°	325.7	342.3	358.8	363.0	423.8	504.8	545.3	618.1	763.6	872.8	888.5
130°	336.4	354.3	372.3	376.7	431.9	505.6	542.4	607.2	736.8	833.9	848.5
132.5°	347.6	365.5	383.4	387.9	438.5	506.1	540.0	598.0	713.9	800.9	813.9
135°	364.2	380.5	396.7	400.8	445.7	505.6	535.6	584.2	681.3	754.1	765.4
137.5°	381.1	397.2	413.3	417.4	456.5	508.7	534.9	576.0	658.1	719.7	728.8
140°	395.0	409.9	424.8	428.5	463.1	509.3	532.4	567.9	638.8	692.0	700.5
142.5°	405.8	419.5	433.3	436.7	468.6	511.1	532.4	563.5	625.9	672.6	680.0
145°	422.4	434.4	446.4	449.4	475.9	511.2	528.8	554.3	605.3	643.5	649.1
147.5°	438.9	450.6	462.3	465.1	486.3	514.7	528.8	548.9	588.9	619.0	623.6
150°	449.7	460.3	470.8	473.4	491.9	516.5	528.8	545.7	579.6	605.0	608.8
152.5°	460.9	468.9	476.8	478.8	495.5	517.7	528.8	543.3	572.1	593.9	596.7
155°	477.4	483.3	489.2	490.7	503.4	520.3	528.8	540.3	563.2	580.5	582.4
157.5°	489.6	495.3	501.1	502.6	511.3	523.0	528.8	537.7	555.6	569.0	570.3
160°	497.8	502.4	506.8	508.0	514.9	524.2	528.8	536.5	551.7	563.2	564.0
162.5°	506.1	509.5	512.8	513.7	518.8	525.5	528.8	535.3	548.2	557.9	558.6
165°	515.1	518.2	521.1	521.9	524.2	527.2	528.8	533.4	542.7	549.6	550.4
167.5°	523.4	524.8	526.3	526.6	528.5	531.1	532.4	535.4	541.5	546.1	546.4
170°	528.8	530.2	531.7	532.0	532.1	532.3	532.4	535.4	541.5	546.1	546.1
172.5°	531.7	532.0	532.3	532.4	532.4	532.4	532.4	534.8	539.6	543.2	542.9
175°	535.6	535.6	535.6	535.6	534.6	533.1	532.4	533.9	536.9	539.2	539.2
177.5°	535.6	535.6	535.6	535.6	534.7	533.6	533.1	534.3	536.6	538.5	538.1
180°	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	363.7	363.7
2.5°	388.3	386.0
5°	499.4	501.8
7.5°	672.5	671.4
10°	836.3	846.8
12.5°	955.6	957.9
15°	1028.1	1032.8
17.5°	1056.2	1057.3
20°	1057.3	1055.0
22.5°	1044.5	1042.2
25°	1029.3	1028.1
27.5°	1015.2	1016.4
30°	1009.4	1013.0
32.5°	1009.4	1015.2
35°	1011.7	1017.6
37.5°	1010.6	1017.6
40°	1005.9	1014.1
42.5°	993.1	998.9
45°	973.2	980.2
47.5°	947.4	952.1
50°	914.7	919.4
52.5°	873.7	874.9
55°	824.6	829.3
57.5°	772.0	773.1
60°	713.5	717.0
62.5°	651.5	651.5
65°	586.0	588.4
67.5°	518.2	524.0
70°	449.2	450.3
72.5°	381.3	381.3
75°	311.1	312.3
77.5°	244.4	244.4
80°	181.3	182.4
82.5°	125.1	127.5
85°	78.4	78.4
87.5°	36.3	32.8
90°	13.7	13.7
92.5°	54.7	43.9
95°	190.7	157.8
97.5°	456.9	394.3
100°	658.4	583.7
102.5°	856.5	792.6
105°	1109.1	1074.8
107.5°	1274.7	1282.9
110°	1337.7	1373.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1343.4	1398.3
115°	1307.7	1383.9
117.5°	1232.3	1316.8
120°	1171.3	1253.5
122.5°	1112.1	1193.1
125°	1027.5	1102.2
127.5°	951.5	1014.4
130°	906.7	964.8
132.5°	866.0	918.1
135°	810.3	855.2
137.5°	765.6	802.4
140°	734.9	769.2
142.5°	709.5	739.0
145°	671.5	693.8
147.5°	642.2	660.7
150°	623.8	638.8
152.5°	608.1	619.4
155°	589.9	597.4
157.5°	575.6	580.9
160°	567.1	570.1
162.5°	561.5	564.4
165°	553.4	556.4
167.5°	547.6	548.9
170°	546.1	546.1
172.5°	541.8	540.7
175°	539.2	539.2
177.5°	536.9	535.6
180°	535.6	535.6



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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	2.33	3.18	3.32	4.19	5.53	15.51	16.36	16.50	17.37	18.71
	3H	3.03	3.80	4.04	4.81	6.18	17.35	18.11	18.35	19.13	20.49
	4H	3.33	4.05	4.35	5.08	6.44	17.99	18.71	19.01	19.74	21.10
	6H	3.58	4.25	4.61	5.27	6.66	18.42	19.09	19.45	20.11	21.50
	8H	3.65	4.28	4.68	5.33	6.71	18.54	19.18	19.57	20.22	21.60
	12H	3.67	4.27	4.70	5.31	6.71	18.61	19.21	19.65	20.25	21.65
4H	2H	9.54	10.27	10.56	11.29	12.66	15.78	16.50	16.80	17.53	18.89
	3H	11.11	11.71	12.14	12.76	14.15	17.82	18.43	18.86	19.48	20.86
	4H	11.20	11.76	12.24	12.80	14.20	18.59	19.15	19.63	20.19	21.59
	6H	11.21	11.69	12.26	12.76	14.16	19.13	19.61	20.18	20.67	22.07
	8H	11.19	11.64	12.24	12.69	14.11	19.29	19.74	20.34	20.80	22.21
	12H	11.14	11.55	12.21	12.62	14.04	19.38	19.79	20.45	20.86	22.28
8H	4H	12.65	13.09	13.70	14.15	15.57	18.65	19.10	19.70	20.16	21.57
	6H	12.89	13.26	13.96	14.36	15.77	19.28	19.65	20.35	20.75	22.16
	8H	12.91	13.23	13.99	14.32	15.75	19.50	19.82	20.58	20.91	22.34
	12H	12.87	13.16	13.96	14.24	15.71	19.64	19.93	20.73	21.01	22.48
12H	4H	12.79	13.19	13.86	14.27	15.69	18.60	19.01	19.67	20.08	21.50
	6H	13.15	13.47	14.23	14.56	15.99	19.26	19.59	20.34	20.67	22.10
	8H	13.22	13.50	14.30	14.58	16.05	19.49	19.78	20.58	20.86	22.33