

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: P936645

Luminaire Tested: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

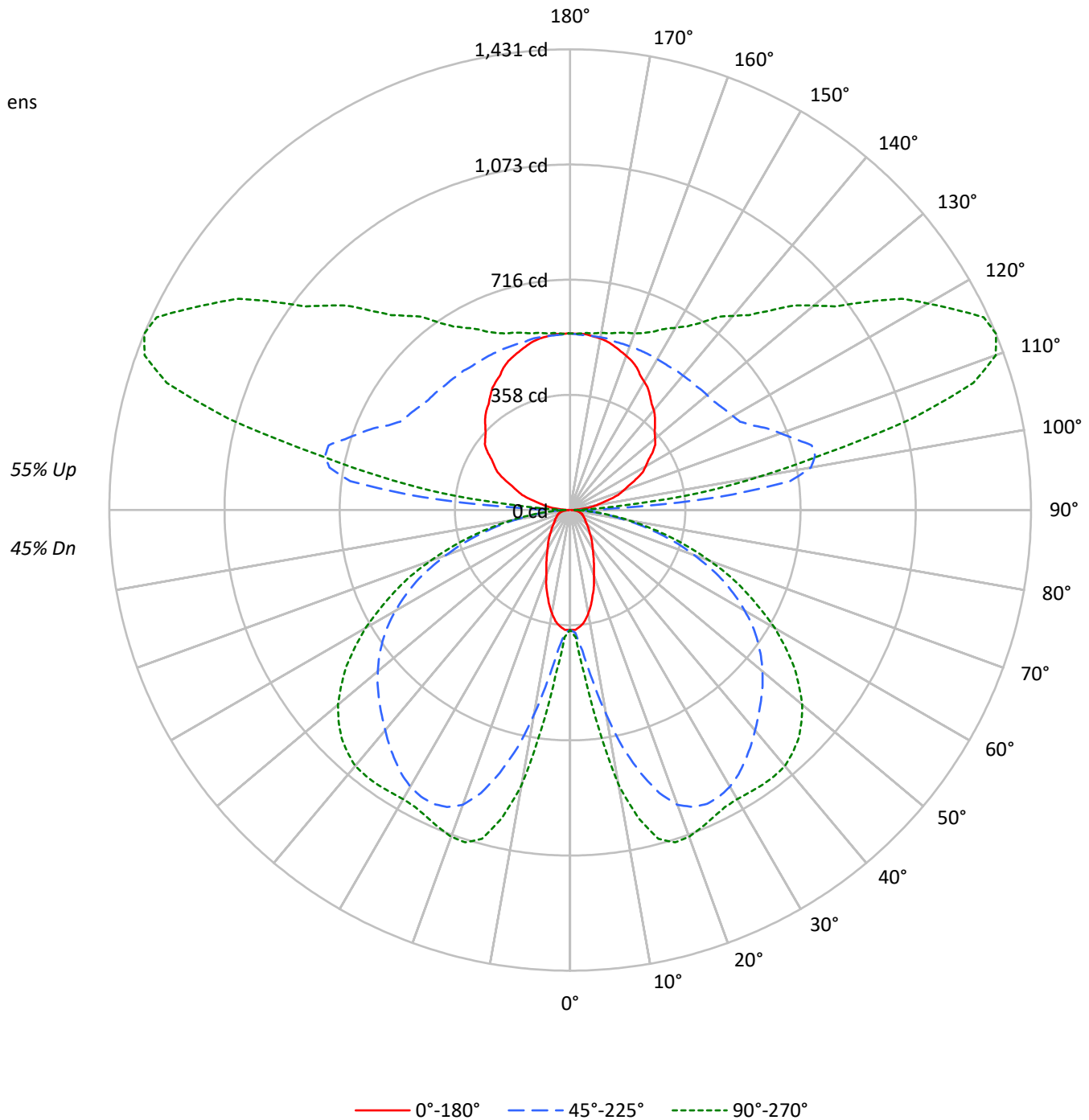
Test Method: LM-79-2019  
Report Number: P936645  
REPORT IS A COMBINATION OF REPORTS P933485 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6436.7 lumens  
Efficiency: N/A  
Efficacy: 113.3 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°	1727	1727	1727
5°	1688	1997	2322
10°	1531	2911	3850
15°	1301	3803	4649
20°	1059	4407	4737
25°	884	4611	4641
30°	745	4640	4633
35°	659	4563	4752
40°	574	4463	4876
45°	520	4390	4895
50°	477	4324	4814
55°	457	4227	4601
60°	468	4042	4264
65°	486	3759	3801
70°	518	3278	3211
75°	575	2673	2505
80°	629	1854	1688
85°	559	984	864

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4895 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.2	0.7
10°-20°	213.5	3.3
20°-30°	373.4	5.8
30°-40°	480.7	7.5
40°-50°	536.9	8.3
50°-60°	514.2	8.0
60°-70°	407.5	6.3
70°-80°	239.6	3.7
80°-90°	68.7	1.1
90°-100°	267.2	4.2
100°-110°	702.6	10.9
110°-120°	728.5	11.3
120°-130°	584.4	9.1
130°-140°	458.5	7.1
140°-150°	351.9	5.5
150°-160°	253.5	3.9
160°-170°	155.1	2.4
170°-180°	52.4	0.8
0°-30°	635.0	9.9
0°-40°	1115.7	17.3
0°-60°	2166.8	33.7
0°-90°	2882.6	44.8
90°-120°	1698.4	26.4
90°-150°	3093.2	48.1
90°-180°	3554.0	55.2
0°-180°	6436.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	363	389	438	496	514	33
15°	272	502	845	1025	1057	76
25°	174	569	1007	1051	1052	80
35°	117	544	948	1002	1042	73
45°	80	433	838	960	1003	62
55°	58	275	711	826	849	52
65°	46	146	528	594	602	45
75°	34	90	290	318	320	35
85°	12	28	72	79	80	13
90°	4	10	28	14	14	4
95°	35	138	460	237	162	39
105°	127	192	777	1179	1100	134
115°	225	273	622	1241	1417	222
125°	313	351	566	956	1128	278
135°	373	410	548	772	875	288
145°	432	460	541	659	710	271
155°	489	502	541	594	612	225
165°	527	534	541	563	570	149
175°	548	548	545	552	552	52
180°	548	548	548	548	548	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3
2.5°	372.3	372.3	374.7	376.0	378.3	379.5	382.0	384.4	391.5	392.7	395.1
5°	362.8	367.6	383.1	389.1	405.9	428.6	438.2	453.7	486.1	495.7	501.7
7.5°	348.4	359.2	397.5	407.0	449.0	508.8	534.0	567.5	618.9	644.1	664.5
10°	325.6	348.4	416.7	439.4	507.6	598.6	645.4	692.0	769.8	804.5	817.7
12.5°	300.5	337.6	437.0	468.1	566.3	699.2	755.5	806.9	895.6	942.2	949.4
15°	271.8	322.1	456.1	501.7	628.6	783.0	845.3	908.7	991.3	1024.8	1033.2
17.5°	246.6	310.1	474.2	522.0	676.4	858.4	921.9	974.6	1041.6	1064.4	1070.3
20°	215.5	290.9	486.1	548.3	726.8	913.5	974.6	1015.3	1060.8	1075.2	1077.6
22.5°	192.7	270.6	493.3	557.9	760.2	947.1	998.5	1030.9	1062.0	1066.8	1067.9
25°	173.6	247.8	492.1	568.7	789.0	967.4	1006.9	1030.9	1048.8	1051.2	1051.2
27.5°	155.7	222.7	487.3	571.1	810.6	972.2	1003.3	1020.1	1028.5	1033.2	1033.2
30°	140.1	198.8	475.3	566.3	820.1	967.4	992.5	1000.9	1009.3	1016.5	1020.1
32.5°	128.1	176.0	457.4	556.7	821.3	955.4	973.4	978.1	990.1	1006.9	1012.9
35°	117.3	153.3	437.0	543.5	814.2	936.3	948.2	953.1	977.0	1002.1	1010.4
37.5°	106.6	136.5	410.7	520.8	803.4	913.5	921.9	930.3	967.4	997.3	1006.9
40°	95.8	122.1	379.5	495.7	786.6	886.0	893.2	906.4	955.4	990.1	999.7
42.5°	87.4	110.1	346.0	469.3	765.1	854.9	865.7	884.8	941.1	978.1	988.9
45°	80.2	98.2	310.1	433.4	737.5	822.5	838.1	864.4	924.3	960.2	969.7
47.5°	73.0	89.8	273.0	396.3	707.6	790.2	810.6	840.5	901.5	936.3	944.7
50°	67.0	81.4	235.8	356.8	675.3	755.5	779.4	810.6	872.8	905.1	915.9
52.5°	62.2	74.3	201.1	317.2	638.1	719.5	747.1	779.4	838.1	869.2	876.4
55°	57.5	68.3	171.2	275.4	599.8	681.2	711.2	742.3	799.8	826.1	830.9
57.5°	55.1	63.5	146.0	235.8	559.1	638.1	671.7	700.4	754.3	774.6	779.4
60°	51.5	59.9	126.9	202.4	514.9	597.4	626.2	654.9	700.4	717.1	720.8
62.5°	47.9	57.5	112.6	170.0	469.3	549.6	578.2	604.7	643.0	654.9	659.7
65°	45.5	55.1	101.8	146.0	422.7	499.2	528.0	550.7	581.9	593.9	596.3
67.5°	43.1	52.7	93.4	125.7	376.0	449.0	470.5	492.1	516.0	528.0	529.1
70°	39.5	50.3	86.2	111.3	328.0	391.5	409.4	432.2	451.4	457.4	460.9
72.5°	37.1	46.7	81.4	100.6	278.9	336.4	353.2	366.3	383.1	389.1	389.1
75°	33.6	41.9	76.6	89.8	228.7	275.4	289.7	302.9	316.1	318.5	314.9
77.5°	29.9	37.1	65.9	75.4	178.4	217.9	229.8	237.1	247.8	250.2	251.5
80°	25.2	32.3	51.5	58.6	129.3	160.4	168.8	174.8	184.4	184.4	186.7
82.5°	19.2	25.2	37.1	41.9	87.4	110.1	117.3	121.0	126.9	126.9	126.9
85°	12.0	15.5	23.9	27.5	52.7	67.0	71.9	73.0	77.8	79.0	79.0
87.5°	6.0	8.4	15.5	16.8	27.5	34.7	34.7	37.1	37.1	35.9	34.7
90°	3.7	6.6	9.6	10.3	16.2	24.0	27.9	24.8	18.7	14.0	14.0
92.5°	14.7	39.7	64.8	71.1	99.9	138.3	157.5	138.0	99.1	69.9	67.1
95°	35.3	81.1	126.9	138.4	245.6	388.7	460.3	410.8	311.7	237.3	229.0
97.5°	61.1	101.4	141.8	151.9	330.9	569.5	688.8	657.5	594.8	547.9	531.8
100°	81.0	117.6	154.2	163.3	362.0	626.7	759.1	761.4	766.0	769.3	750.2
102.5°	97.9	132.1	166.2	174.8	376.2	644.7	779.0	818.9	898.7	958.5	942.2
105°	126.6	155.5	184.5	191.7	386.8	646.8	776.8	866.2	1045.2	1179.3	1170.5
107.5°	156.0	183.0	209.9	216.7	388.6	618.0	732.6	857.4	1106.9	1294.1	1296.3
110°	175.8	200.2	224.7	230.7	385.8	592.4	695.8	835.3	1114.3	1323.5	1332.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	195.4	218.6	241.8	247.6	385.9	570.2	662.3	805.1	1090.6	1304.7	1318.8
115°	224.9	246.3	267.7	273.1	389.5	544.7	622.2	759.8	1034.8	1241.1	1260.6
117.5°	253.9	273.3	292.8	297.7	396.7	528.6	594.6	718.7	967.0	1153.2	1174.8
120°	270.8	289.1	307.5	312.1	402.6	523.3	583.6	697.0	923.8	1093.9	1114.9
122.5°	287.3	305.8	324.3	328.9	411.0	520.4	575.1	677.2	881.6	1034.7	1055.4
125°	312.8	329.6	346.4	350.6	422.4	518.1	565.9	652.7	826.2	956.4	975.5
127.5°	333.4	350.4	367.3	371.6	433.8	516.7	558.2	632.7	781.7	893.4	909.5
130°	344.4	362.7	381.1	385.6	442.1	517.5	555.2	621.5	754.2	853.6	868.5
132.5°	355.8	374.1	392.5	397.0	448.9	518.1	552.7	612.1	730.8	819.8	833.1
135°	372.8	389.5	406.1	410.2	456.2	517.5	548.2	598.0	697.4	771.9	783.5
137.5°	390.1	406.6	423.1	427.2	467.3	520.8	547.5	589.6	673.7	736.7	746.1
140°	404.4	419.6	434.8	438.6	474.1	521.3	544.9	581.3	653.8	708.3	717.0
142.5°	415.4	429.4	443.5	447.0	479.7	523.2	544.9	576.8	640.6	688.5	696.1
145°	432.4	444.6	456.9	460.0	487.1	523.3	541.3	567.3	619.6	658.7	664.4
147.5°	449.3	461.2	473.2	476.1	497.8	526.8	541.3	561.8	602.8	633.6	638.3
150°	460.3	471.1	481.9	484.6	503.5	528.7	541.3	558.6	593.3	619.3	623.1
152.5°	471.7	480.0	488.1	490.1	507.2	529.9	541.3	556.1	585.6	607.9	610.8
155°	488.6	494.7	500.8	502.3	515.3	532.6	541.3	553.1	576.5	594.2	596.2
157.5°	501.1	507.0	512.9	514.4	523.3	535.3	541.3	550.4	568.7	582.4	583.8
160°	509.6	514.2	518.8	520.0	527.1	536.6	541.3	549.1	564.8	576.5	577.3
162.5°	518.1	521.6	524.9	525.8	531.0	537.9	541.3	547.9	561.2	571.1	571.8
165°	527.3	530.4	533.4	534.2	536.6	539.7	541.3	546.0	555.5	562.6	563.4
167.5°	535.8	537.2	538.7	539.1	541.0	543.6	544.9	548.1	554.3	559.0	559.3
170°	541.3	542.7	544.2	544.6	544.7	544.9	544.9	548.1	554.3	559.0	559.0
172.5°	544.2	544.6	544.9	544.9	544.9	544.9	544.9	547.4	552.4	556.0	555.7
175°	548.2	548.2	548.2	548.2	547.2	545.7	544.9	546.5	549.6	551.9	551.9
177.5°	548.2	548.2	548.2	548.2	547.4	546.2	545.7	546.9	549.3	551.2	550.8
180°	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	372.3	372.3
2.5°	397.5	395.1
5°	511.2	513.6
7.5°	688.4	687.2
10°	856.0	866.8
12.5°	978.1	980.5
15°	1052.4	1057.2
17.5°	1081.1	1082.3
20°	1082.3	1079.9
22.5°	1069.2	1066.8
25°	1053.6	1052.4
27.5°	1039.2	1040.4
30°	1033.2	1036.9
32.5°	1033.2	1039.2
35°	1035.6	1041.6
37.5°	1034.5	1041.6
40°	1029.6	1038.0
42.5°	1016.5	1022.5
45°	996.2	1003.3
47.5°	969.7	974.6
50°	936.3	941.1
52.5°	894.3	895.6
55°	844.1	848.9
57.5°	790.2	791.4
60°	730.3	733.9
62.5°	666.9	666.9
65°	599.8	602.3
67.5°	530.4	536.4
70°	459.8	460.9
72.5°	390.3	390.3
75°	318.5	319.6
77.5°	250.2	250.2
80°	185.6	186.7
82.5°	128.1	130.5
85°	80.2	80.2
87.5°	37.1	33.6
90°	14.0	14.0
92.5°	56.0	44.9
95°	195.2	161.6
97.5°	467.7	403.6
100°	673.9	597.5
102.5°	876.7	811.3
105°	1135.3	1100.2
107.5°	1304.7	1313.2
110°	1369.3	1406.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1375.1	1431.3
115°	1338.6	1416.6
117.5°	1261.4	1347.9
120°	1199.0	1283.1
122.5°	1138.4	1221.3
125°	1051.8	1128.2
127.5°	973.9	1038.4
130°	928.1	987.6
132.5°	886.5	939.8
135°	829.4	875.4
137.5°	783.7	821.3
140°	752.2	787.4
142.5°	726.2	756.5
145°	687.3	710.2
147.5°	657.3	676.3
150°	638.5	653.8
152.5°	622.4	634.0
155°	603.9	611.5
157.5°	589.2	594.6
160°	580.5	583.6
162.5°	574.8	577.7
165°	566.5	569.6
167.5°	560.6	561.9
170°	559.0	559.0
172.5°	554.6	553.4
175°	551.9	551.9
177.5°	549.6	548.2
180°	548.2	548.2



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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	2.41	3.26	3.40	4.27	5.61	15.59	16.44	16.58	17.45	18.79
	3H	3.11	3.88	4.12	4.89	6.26	17.43	18.19	18.43	19.21	20.57
	4H	3.41	4.13	4.43	5.16	6.52	18.07	18.79	19.09	19.82	21.19
	6H	3.66	4.33	4.69	5.35	6.74	18.50	19.17	19.53	20.19	21.58
	8H	3.73	4.36	4.76	5.41	6.78	18.62	19.26	19.65	20.30	21.68
	12H	3.75	4.35	4.78	5.39	6.79	18.69	19.29	19.73	20.33	21.73
4H	2H	9.62	10.35	10.65	11.37	12.74	15.86	16.58	16.88	17.61	18.97
	3H	11.19	11.79	12.22	12.84	14.23	17.90	18.51	18.94	19.56	20.94
	4H	11.28	11.84	12.32	12.88	14.29	18.67	19.23	19.71	20.27	21.67
	6H	11.29	11.77	12.34	12.84	14.24	19.21	19.69	20.26	20.75	22.15
	8H	11.27	11.72	12.32	12.78	14.19	19.37	19.82	20.42	20.88	22.29
	12H	11.23	11.63	12.30	12.70	14.13	19.46	19.87	20.53	20.94	22.36
8H	4H	12.73	13.17	13.78	14.23	15.65	18.73	19.18	19.78	20.24	21.65
	6H	12.97	13.34	14.04	14.44	15.85	19.36	19.73	20.43	20.83	22.24
	8H	12.99	13.31	14.07	14.40	15.83	19.58	19.91	20.66	20.99	22.42
	12H	12.95	13.24	14.04	14.32	15.79	19.72	20.01	20.81	21.09	22.56
12H	4H	12.87	13.28	13.94	14.35	15.77	18.68	19.09	19.75	20.16	21.58
	6H	13.23	13.55	14.31	14.64	16.07	19.34	19.67	20.42	20.75	22.18
	8H	13.30	13.58	14.38	14.66	16.13	19.57	19.86	20.66	20.94	22.41