

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: P936667

Luminaire Tested: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

**Test Information**

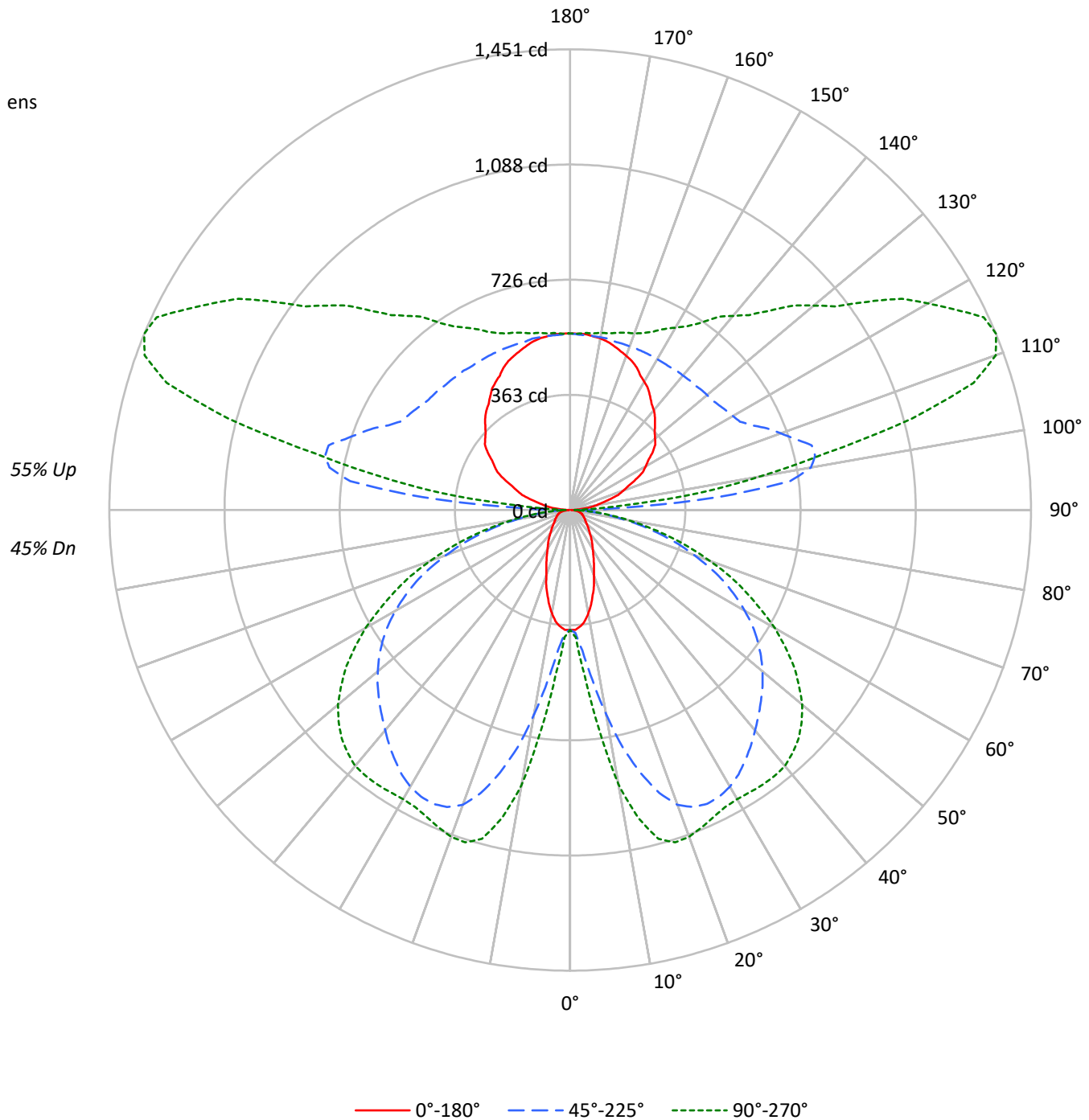
Test Method: LM-79-2019  
Report Number: P936667  
REPORT IS A COMBINATION OF REPORTS P933485 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-8-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6527.1 lumens  
Efficiency: N/A  
Efficacy: 114.9 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°	1751	1751	1751
5°	1712	2025	2355
10°	1552	2952	3904
15°	1319	3856	4714
20°	1074	4469	4804
25°	896	4676	4706
30°	755	4705	4698
35°	668	4628	4819
40°	582	4526	4945
45°	528	4452	4964
50°	484	4385	4882
55°	463	4286	4665
60°	474	4099	4323
65°	494	3812	3854
70°	526	3324	3256
75°	582	2711	2540
80°	636	1880	1712
85°	564	998	877

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4964 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.8	0.7
10°-20°	216.5	3.3
20°-30°	378.6	5.8
30°-40°	487.4	7.5
40°-50°	544.4	8.3
50°-60°	521.4	8.0
60°-70°	413.2	6.3
70°-80°	243.0	3.7
80°-90°	69.6	1.1
90°-100°	271.0	4.2
100°-110°	712.5	10.9
110°-120°	738.8	11.3
120°-130°	592.6	9.1
130°-140°	465.0	7.1
140°-150°	356.9	5.5
150°-160°	257.0	3.9
160°-170°	157.3	2.4
170°-180°	53.1	0.8
0°-30°	643.9	9.9
0°-40°	1131.4	17.3
0°-60°	2197.2	33.7
0°-90°	2923.1	44.8
90°-120°	1722.2	26.4
90°-150°	3136.7	48.1
90°-180°	3604.0	55.2
0°-180°	6527.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	368	395	444	503	521	34
15°	276	509	857	1039	1072	77
25°	176	577	1021	1066	1067	81
35°	119	551	962	1016	1056	74
45°	81	440	850	974	1017	63
55°	58	279	721	838	861	53
65°	46	148	535	602	611	46
75°	34	91	294	323	324	36
85°	12	28	73	80	81	13
90°	4	10	28	14	14	4
95°	36	140	467	241	164	40
105°	128	194	788	1196	1116	136
115°	228	277	631	1258	1436	225
125°	317	356	574	970	1144	282
135°	378	416	556	783	888	292
145°	438	466	549	668	720	275
155°	496	509	549	603	620	228
165°	535	542	549	570	578	151
175°	556	556	553	560	560	53
180°	556	556	556	556	556	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5
2.5°	377.5	377.5	380.0	381.3	383.6	384.9	387.3	389.8	397.0	398.2	400.6
5°	367.9	372.7	388.5	394.6	411.6	434.7	444.3	460.1	493.0	502.6	508.7
7.5°	353.3	364.2	403.1	412.8	455.3	515.9	541.5	575.5	627.6	653.2	673.8
10°	330.2	353.3	422.5	445.6	514.8	607.0	654.4	701.8	780.6	815.8	829.2
12.5°	304.8	342.3	443.2	474.7	574.2	709.0	766.1	818.3	908.1	955.5	962.7
15°	275.6	326.6	462.5	508.7	637.4	794.0	857.2	921.5	1005.3	1039.2	1047.7
17.5°	250.1	314.5	480.8	529.3	685.9	870.5	934.9	988.3	1056.2	1079.3	1085.4
20°	218.5	295.0	493.0	556.0	737.0	926.3	988.3	1029.5	1075.7	1090.3	1092.7
22.5°	195.4	274.4	500.2	565.7	770.9	960.4	1012.5	1045.4	1076.9	1081.8	1082.9
25°	176.1	251.3	499.0	576.7	800.1	981.0	1021.0	1045.4	1063.6	1066.0	1066.0
27.5°	157.9	225.8	494.1	579.1	822.0	985.8	1017.4	1034.4	1042.9	1047.7	1047.7
30°	142.0	201.6	482.0	574.2	831.7	981.0	1006.4	1015.0	1023.5	1030.8	1034.4
32.5°	129.9	178.5	463.8	564.5	832.8	968.8	987.1	991.9	1004.0	1021.0	1027.1
35°	118.9	155.4	443.2	551.2	825.6	949.4	961.6	966.4	990.7	1016.2	1024.6
37.5°	108.1	138.4	416.5	528.2	814.6	926.3	934.9	943.4	981.0	1011.3	1021.0
40°	97.1	123.8	384.9	502.6	797.6	898.5	905.7	919.1	968.8	1004.0	1013.8
42.5°	88.6	111.7	350.8	475.9	775.8	866.9	877.8	897.2	954.3	991.9	1002.8
45°	81.4	99.6	314.5	439.5	747.8	834.1	849.9	876.6	937.3	973.7	983.4
47.5°	74.0	91.1	276.8	401.9	717.5	801.3	822.0	852.3	914.2	949.4	957.9
50°	68.0	82.6	239.1	361.8	684.8	766.1	790.4	822.0	885.1	917.8	928.8
52.5°	63.1	75.3	203.9	321.7	647.1	729.7	757.6	790.4	849.9	881.4	888.7
55°	58.3	69.2	173.6	279.2	608.3	690.8	721.1	752.7	811.0	837.7	842.6
57.5°	55.8	64.4	148.1	239.1	567.0	647.1	681.1	710.3	764.9	785.5	790.4
60°	52.2	60.7	128.7	205.2	522.1	605.8	635.0	664.1	710.3	727.2	730.9
62.5°	48.6	58.3	114.1	172.4	475.9	557.3	586.4	613.2	652.0	664.1	669.0
65°	46.2	55.8	103.2	148.1	428.6	506.3	535.4	558.5	590.1	602.2	604.6
67.5°	43.7	53.4	94.7	127.4	381.3	455.3	477.1	499.0	523.3	535.4	536.6
70°	40.1	51.0	87.4	112.9	332.6	397.0	415.2	438.3	457.7	463.8	467.4
72.5°	37.7	47.3	82.6	102.0	282.9	341.2	358.2	371.5	388.5	394.6	394.6
75°	34.0	42.5	77.7	91.1	231.9	279.2	293.8	307.1	320.5	323.0	319.3
77.5°	30.3	37.7	66.8	76.5	180.9	220.9	233.1	240.4	251.3	253.7	255.0
80°	25.5	32.8	52.2	59.5	131.2	162.7	171.2	177.2	187.0	187.0	189.4
82.5°	19.5	25.5	37.7	42.5	88.6	111.7	118.9	122.6	128.7	128.7	128.7
85°	12.1	15.7	24.3	27.9	53.4	68.0	72.9	74.0	78.9	80.1	80.1
87.5°	6.1	8.5	15.7	17.0	27.9	35.2	35.2	37.7	37.7	36.4	35.2
90°	3.7	6.7	9.7	10.4	16.4	24.3	28.3	25.2	18.9	14.2	14.2
92.5°	14.9	40.3	65.7	72.1	101.3	140.2	159.7	139.9	100.5	70.9	68.1
95°	35.8	82.3	128.7	140.3	249.1	394.2	466.8	416.6	316.1	240.7	232.2
97.5°	61.9	102.8	143.8	154.1	335.5	577.5	698.5	666.7	603.2	555.6	539.3
100°	82.1	119.2	156.3	165.6	367.0	635.5	769.7	772.1	776.7	780.2	760.8
102.5°	99.3	134.0	168.5	177.2	381.4	653.8	789.9	830.4	911.3	972.0	955.4
105°	128.4	157.7	187.1	194.4	392.2	655.9	787.7	878.4	1059.9	1195.9	1186.9
107.5°	158.2	185.6	212.9	219.8	394.1	626.6	742.9	869.4	1122.5	1312.3	1314.5
110°	178.3	203.0	227.8	234.0	391.2	600.8	705.6	847.0	1129.9	1342.1	1351.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	198.1	221.7	245.2	251.1	391.3	578.2	671.6	816.4	1105.9	1323.1	1337.4
115°	228.0	249.7	271.5	276.9	394.9	552.3	631.0	770.5	1049.4	1258.5	1278.3
117.5°	257.4	277.2	296.9	301.9	402.3	536.0	602.9	728.8	980.6	1169.4	1191.3
120°	274.6	293.2	311.8	316.4	408.2	530.6	591.8	706.7	936.8	1109.3	1130.5
122.5°	291.4	310.1	328.8	333.6	416.7	527.7	583.2	686.7	893.9	1049.3	1070.3
125°	317.2	334.2	351.3	355.5	428.3	525.4	573.9	661.9	837.8	969.8	989.2
127.5°	338.1	355.3	372.5	376.8	439.9	524.0	566.0	641.6	792.6	906.0	922.3
130°	349.2	367.8	386.4	391.0	448.3	524.8	563.0	630.3	764.8	865.6	880.7
132.5°	360.8	379.4	398.0	402.6	455.2	525.4	560.5	620.7	741.1	831.3	844.8
135°	378.0	394.9	411.8	416.0	462.6	524.8	555.9	606.4	707.2	782.8	794.5
137.5°	395.6	412.3	429.0	433.2	473.9	528.1	555.2	597.9	683.1	747.0	756.5
140°	410.0	425.5	440.9	444.8	480.7	528.6	552.6	589.4	663.0	718.2	727.1
142.5°	421.3	435.5	449.8	453.3	486.4	530.5	552.6	584.9	649.6	698.2	705.8
145°	438.5	450.9	463.4	466.4	493.9	530.6	548.9	575.3	628.3	667.9	673.7
147.5°	455.6	467.7	479.8	482.8	504.8	534.2	548.9	569.7	611.3	642.5	647.3
150°	466.8	477.7	488.7	491.4	510.6	536.1	548.9	566.4	601.7	628.0	631.9
152.5°	478.4	486.7	494.9	497.0	514.3	537.4	548.9	563.9	593.9	616.4	619.4
155°	495.5	501.6	507.8	509.3	522.5	540.1	548.9	560.8	584.6	602.6	604.6
157.5°	508.2	514.1	520.1	521.6	530.7	542.8	548.9	558.1	576.7	590.6	592.0
160°	516.8	521.5	526.1	527.3	534.5	544.1	548.9	556.9	572.7	584.6	585.5
162.5°	525.4	528.9	532.3	533.2	538.5	545.5	548.9	555.6	569.1	579.1	579.8
165°	534.7	537.8	540.9	541.7	544.1	547.3	548.9	553.7	563.3	570.5	571.3
167.5°	543.3	544.7	546.3	546.6	548.6	551.2	552.6	555.8	562.1	566.8	567.2
170°	548.9	550.3	551.9	552.2	552.3	552.5	552.6	555.8	562.1	566.8	566.8
172.5°	551.9	552.2	552.5	552.6	552.6	552.6	552.6	555.1	560.1	563.8	563.6
175°	555.9	555.9	555.9	555.9	554.9	553.3	552.6	554.1	557.3	559.7	559.7
177.5°	555.9	555.9	555.9	555.9	555.0	553.9	553.3	554.6	557.0	558.9	558.6
180°	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	377.5	377.5
2.5°	403.1	400.6
5°	518.4	520.8
7.5°	698.1	696.9
10°	868.0	879.0
12.5°	991.9	994.3
15°	1067.2	1072.1
17.5°	1096.3	1097.5
20°	1097.5	1095.1
22.5°	1084.2	1081.8
25°	1068.4	1067.2
27.5°	1053.8	1055.1
30°	1047.7	1051.4
32.5°	1047.7	1053.8
35°	1050.2	1056.2
37.5°	1049.0	1056.2
40°	1044.1	1052.6
42.5°	1030.8	1036.9
45°	1010.2	1017.4
47.5°	983.4	988.3
50°	949.4	954.3
52.5°	906.9	908.1
55°	855.9	860.8
57.5°	801.3	802.5
60°	740.6	744.2
62.5°	676.2	676.2
65°	608.3	610.7
67.5°	537.8	543.9
70°	466.2	467.4
72.5°	395.8	395.8
75°	323.0	324.1
77.5°	253.7	253.7
80°	188.2	189.4
82.5°	129.9	132.3
85°	81.4	81.4
87.5°	37.7	34.0
90°	14.2	14.2
92.5°	56.8	45.5
95°	198.0	163.8
97.5°	474.3	409.3
100°	683.4	605.9
102.5°	889.0	822.7
105°	1151.3	1115.6
107.5°	1323.1	1331.7
110°	1388.5	1425.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1394.4	1451.4
115°	1357.4	1436.5
117.5°	1279.1	1366.8
120°	1215.8	1301.1
122.5°	1154.4	1238.4
125°	1066.6	1144.0
127.5°	987.6	1053.0
130°	941.1	1001.5
132.5°	898.9	953.0
135°	841.1	887.7
137.5°	794.7	832.8
140°	762.8	798.4
142.5°	736.4	767.1
145°	697.0	720.1
147.5°	666.6	685.8
150°	647.5	663.0
152.5°	631.2	642.9
155°	612.3	620.1
157.5°	597.5	602.9
160°	588.6	591.8
162.5°	582.8	585.8
165°	574.4	577.6
167.5°	568.4	569.8
170°	566.8	566.8
172.5°	562.4	561.2
175°	559.7	559.7
177.5°	557.3	555.9
180°	555.9	555.9



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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	2.46	3.31	3.45	4.32	5.66	15.64	16.49	16.63	17.50	18.84
	3H	3.16	3.92	4.16	4.94	6.30	17.47	18.24	18.48	19.26	20.62
	4H	3.46	4.18	4.48	5.21	6.57	18.12	18.84	19.14	19.87	21.23
	6H	3.71	4.38	4.74	5.40	6.79	18.55	19.22	19.58	20.24	21.62
	8H	3.78	4.41	4.81	5.46	6.83	18.67	19.31	19.70	20.35	21.73
	12H	3.79	4.40	4.83	5.44	6.84	18.74	19.34	19.78	20.38	21.78
4H	2H	9.67	10.39	10.69	11.42	12.79	15.91	16.63	16.93	17.65	19.02
	3H	11.24	11.84	12.27	12.89	14.28	17.95	18.56	18.99	19.61	20.99
	4H	11.33	11.89	12.37	12.93	14.33	18.72	19.28	19.76	20.32	21.72
	6H	11.34	11.82	12.39	12.89	14.29	19.26	19.74	20.31	20.80	22.20
	8H	11.32	11.77	12.37	12.82	14.24	19.42	19.87	20.47	20.93	22.34
	12H	11.27	11.68	12.34	12.75	14.17	19.51	19.92	20.58	20.99	22.41
8H	4H	12.78	13.22	13.83	14.28	15.70	18.78	19.23	19.83	20.28	21.70
	6H	13.02	13.39	14.09	14.49	15.90	19.41	19.78	20.48	20.88	22.29
	8H	13.04	13.36	14.12	14.44	15.88	19.63	19.95	20.71	21.04	22.47
	12H	13.00	13.29	14.09	14.37	15.84	19.77	20.06	20.86	21.14	22.61
12H	4H	12.92	13.32	13.99	14.40	15.82	18.73	19.14	19.80	20.21	21.63
	6H	13.28	13.60	14.36	14.69	16.12	19.39	19.72	20.47	20.80	22.23
	8H	13.34	13.63	14.43	14.71	16.18	19.62	19.91	20.71	20.99	22.46