

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: P936212

Luminaire Tested: SQ4-FB-025U-050D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

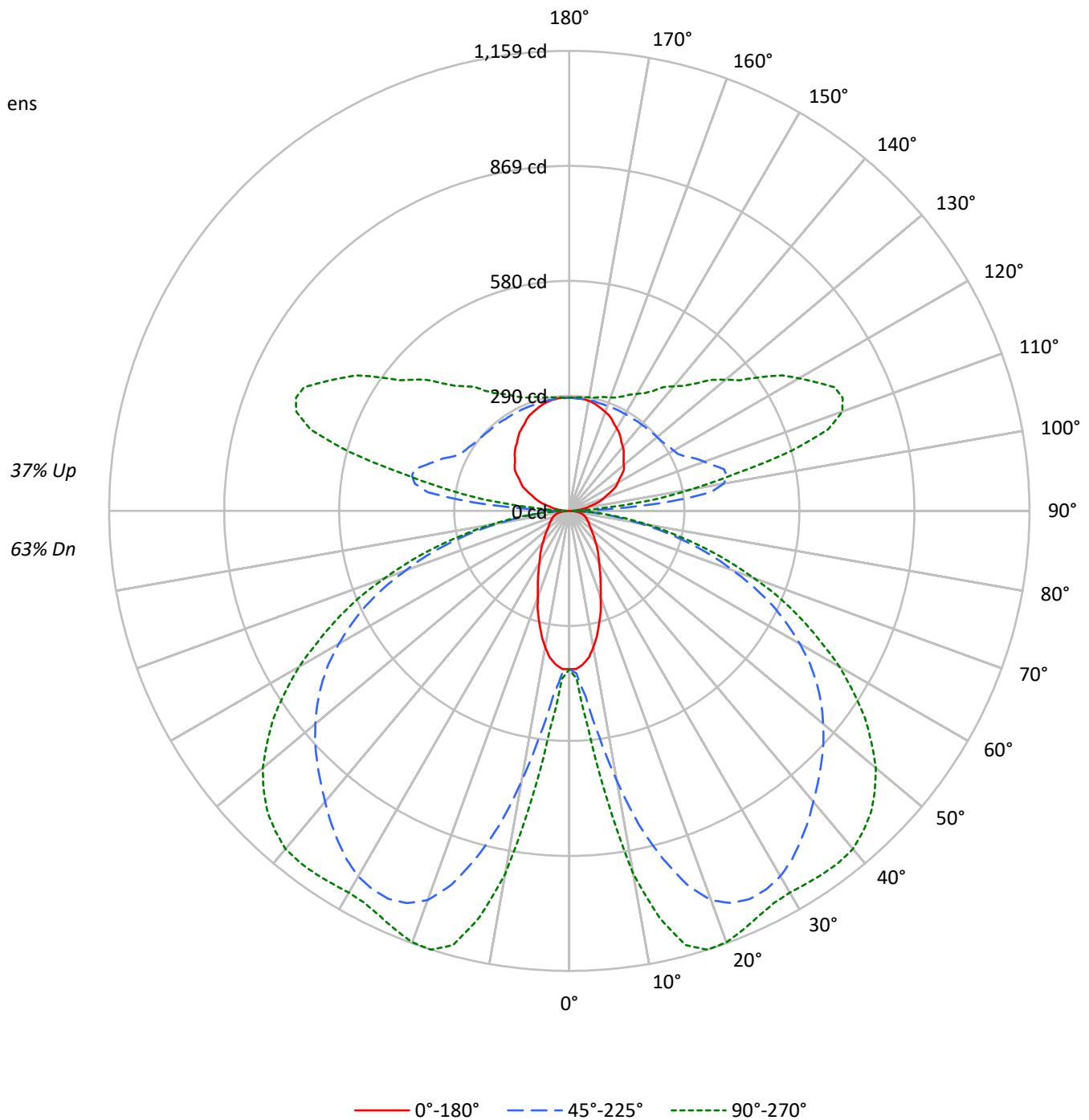
Test Method: LM-79-2019  
Report Number: P936212  
REPORT IS A COMBINATION OF REPORTS P933453 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-050D-830-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4935.9 lumens  
Efficiency: N/A  
Efficacy: 112.2 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: Semi-Direct  
  
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	50	30	10
RCR																				
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	63		
1	100	95	91	87	93	89	86	82	78	75	73	68	66	64	59	57	56	51		
2	90	82	76	70	84	77	71	66	68	63	59	59	55	52	51	48	46	42		
3	82	72	64	57	76	67	60	55	59	53	49	51	47	43	44	41	38	34		
4	75	63	54	48	69	59	52	46	52	46	41	45	40	37	39	35	32	29		
5	68	56	47	41	63	52	45	39	46	40	35	40	35	31	35	31	28	24		
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	21		
7	58	45	36	30	54	42	34	29	37	31	26	33	27	23	28	24	21	18		
8	53	40	32	26	50	38	31	25	34	27	23	30	24	21	26	22	18	16		
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	24	19	16	14		
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15	13		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1850	1850	1850
5°	1807	2138	2487
10°	1639	3117	4123
15°	1394	4073	4979
20°	1134	4720	5074
25°	946	4939	4971
30°	798	4970	4962
35°	705	4888	5090
40°	615	4780	5222
45°	557	4702	5242
50°	511	4631	5156
55°	490	4527	4928
60°	501	4328	4566
65°	522	4026	4071
70°	556	3511	3439
75°	615	2863	2683
80°	674	1986	1808
85°	596	1054	925

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5242 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.6	1.0
10°-20°	228.6	4.6
20°-30°	399.9	8.1
30°-40°	514.8	10.4
40°-50°	575.0	11.6
50°-60°	550.7	11.2
60°-70°	436.5	8.8
70°-80°	256.6	5.2
80°-90°	72.4	1.5
90°-100°	139.1	2.8
100°-110°	365.7	7.4
110°-120°	379.2	7.7
120°-130°	304.1	6.2
130°-140°	238.6	4.8
140°-150°	183.2	3.7
150°-160°	131.9	2.7
160°-170°	80.7	1.6
170°-180°	27.3	0.6
0°-30°	680.1	13.8
0°-40°	1194.9	24.2
0°-60°	2320.6	47.0
0°-90°	3086.1	62.5
90°-120°	883.9	17.9
90°-150°	1609.9	32.6
90°-180°	1850.0	37.5
0°-180°	4935.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	388	417	469	531	550	36
15°	291	537	905	1098	1132	81
25°	186	609	1078	1126	1127	86
35°	126	582	1016	1073	1116	78
45°	86	464	898	1028	1074	66
55°	62	295	762	885	909	56
65°	49	156	566	636	645	48
75°	36	96	310	341	342	38
85°	13	29	77	85	86	14
90°	2	5	14	7	7	2
95°	18	72	240	124	84	20
105°	66	100	404	614	572	70
115°	117	142	324	646	737	116
125°	163	182	294	498	587	144
135°	194	214	285	402	456	150
145°	225	239	282	343	370	141
155°	254	261	282	309	318	117
165°	274	278	282	293	296	77
175°	285	285	284	287	287	27
180°	285	285	285	285	285	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7
2.5°	398.7	398.7	401.3	402.7	405.2	406.5	409.1	411.7	419.3	420.5	423.1
5°	388.5	393.7	410.3	416.7	434.7	459.1	469.3	485.9	520.6	530.9	537.3
7.5°	373.1	384.7	425.7	435.9	480.9	544.9	571.9	607.8	662.9	689.8	711.6
10°	348.7	373.1	446.3	470.6	543.7	641.1	691.2	741.2	824.5	861.6	875.8
12.5°	321.9	361.6	468.1	501.3	606.5	748.8	809.2	864.2	959.2	1009.2	1016.8
15°	291.1	344.9	488.5	537.3	673.2	838.6	905.3	973.2	1061.7	1097.6	1106.6
17.5°	264.1	332.1	507.8	559.1	724.5	919.4	987.4	1043.8	1115.6	1139.9	1146.3
20°	230.8	311.6	520.6	587.3	778.4	978.4	1043.8	1087.4	1136.1	1151.5	1154.1
22.5°	206.4	289.8	528.3	597.5	814.2	1014.3	1069.4	1104.1	1137.4	1142.5	1143.8
25°	185.9	265.4	527.0	609.1	845.0	1036.1	1078.4	1104.1	1123.3	1125.9	1125.9
27.5°	166.7	238.5	521.9	611.6	868.1	1041.2	1074.5	1092.5	1101.5	1106.6	1106.6
30°	150.0	212.9	509.1	606.5	878.4	1036.1	1063.0	1072.0	1080.9	1088.7	1092.5
32.5°	137.2	188.5	489.9	596.3	879.6	1023.2	1042.5	1047.6	1060.4	1078.4	1084.8
35°	125.6	164.1	468.1	582.1	872.0	1002.7	1015.6	1020.7	1046.3	1073.3	1082.2
37.5°	114.1	146.2	439.9	557.8	860.4	978.4	987.4	996.3	1036.1	1068.1	1078.4
40°	102.6	130.8	406.5	530.9	842.4	948.9	956.6	970.7	1023.2	1060.4	1070.7
42.5°	93.6	118.0	370.5	502.7	819.4	915.6	927.1	947.6	1007.9	1047.6	1059.2
45°	85.9	105.2	332.1	464.1	789.8	881.0	897.6	925.8	989.9	1028.4	1038.6
47.5°	78.2	96.2	292.3	424.5	757.8	846.3	868.1	900.2	965.6	1002.7	1011.7
50°	71.8	87.2	252.6	382.1	723.2	809.2	834.8	868.1	934.8	969.4	981.0
52.5°	66.6	79.5	215.4	339.8	683.4	770.6	800.2	834.8	897.6	931.0	938.6
55°	61.6	73.1	183.4	294.9	642.4	729.6	761.6	795.0	856.6	884.8	889.9
57.5°	59.0	68.0	156.4	252.6	598.8	683.4	719.4	750.2	807.8	829.6	834.8
60°	55.2	64.1	135.9	216.7	551.4	639.9	670.6	701.4	750.2	768.1	772.0
62.5°	51.3	61.6	120.6	182.1	502.7	588.6	619.3	647.6	688.6	701.4	706.6
65°	48.8	59.0	109.0	156.4	452.7	534.7	565.5	589.9	623.2	636.0	638.6
67.5°	46.2	56.4	100.0	134.6	402.7	480.9	503.9	527.0	552.7	565.5	566.7
70°	42.4	53.8	92.3	119.2	351.3	419.3	438.5	462.9	483.4	489.9	493.7
72.5°	39.8	50.0	87.2	107.7	298.8	360.3	378.3	392.3	410.3	416.7	416.7
75°	35.9	44.8	82.0	96.2	244.9	294.9	310.3	324.4	338.5	341.1	337.3
77.5°	32.0	39.8	70.6	80.8	191.1	233.4	246.2	253.9	265.4	268.0	269.3
80°	27.0	34.6	55.2	62.8	138.5	171.8	180.8	187.2	197.5	197.5	200.0
82.5°	20.6	27.0	39.8	44.8	93.6	118.0	125.6	129.5	135.9	135.9	135.9
85°	12.8	16.6	25.6	29.4	56.4	71.8	77.0	78.2	83.4	84.6	84.6
87.5°	6.4	9.0	16.6	18.0	29.4	37.2	37.2	39.8	39.8	38.4	37.2
90°	1.9	3.4	5.0	5.4	8.4	12.5	14.5	12.9	9.7	7.3	7.3
92.5°	7.6	20.6	33.7	37.0	52.0	72.0	81.9	71.8	51.6	36.4	35.0
95°	18.4	42.2	66.1	72.0	127.8	202.3	239.6	213.8	162.2	123.5	119.1
97.5°	31.8	52.9	73.8	79.1	172.2	296.4	358.5	342.2	309.6	285.2	276.9
100°	42.2	61.2	80.2	85.0	188.3	326.1	395.0	396.3	398.7	400.5	390.5
102.5°	51.0	68.7	86.5	90.9	195.8	335.6	405.4	426.2	467.7	498.8	490.3
105°	65.9	81.0	96.1	99.8	201.3	336.6	404.3	450.8	544.0	613.8	609.2
107.5°	81.2	95.2	109.3	112.8	202.3	321.6	381.3	446.2	576.1	673.5	674.6
110°	91.6	104.2	116.9	120.1	200.8	308.3	362.1	434.7	579.9	688.8	693.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	101.7	113.8	125.8	128.9	200.9	296.7	344.7	419.0	567.6	679.0	686.4
115°	117.0	128.1	139.3	142.1	202.7	283.5	323.8	395.4	538.6	646.0	656.1
117.5°	132.1	142.3	152.4	155.0	206.5	275.1	309.5	374.1	503.2	600.2	611.5
120°	140.9	150.5	160.0	162.4	209.6	272.4	303.7	362.7	480.8	569.3	580.2
122.5°	149.5	159.2	168.8	171.2	214.0	270.8	299.3	352.5	458.8	538.5	549.3
125°	162.8	171.6	180.3	182.5	219.9	269.7	294.5	339.7	430.0	497.7	507.6
127.5°	173.5	182.3	191.2	193.4	225.8	268.9	290.5	329.3	406.9	465.0	473.4
130°	179.2	188.8	198.3	200.7	230.1	269.4	289.0	323.5	392.5	444.3	452.0
132.5°	185.2	194.7	204.2	206.6	233.6	269.7	287.7	318.5	380.3	426.7	433.6
135°	194.0	202.7	211.4	213.6	237.5	269.4	285.4	311.3	363.0	401.8	407.7
137.5°	203.0	211.6	220.2	222.4	243.2	271.0	285.0	306.9	350.6	383.4	388.2
140°	210.4	218.4	226.3	228.3	246.7	271.3	283.6	302.6	340.3	368.6	373.2
142.5°	216.2	223.5	230.9	232.7	249.7	272.4	283.6	300.3	333.5	358.3	362.2
145°	225.0	231.4	237.8	239.4	253.5	272.4	281.7	295.3	322.5	342.8	345.8
147.5°	233.8	240.1	246.3	247.8	259.1	274.2	281.7	292.4	313.8	329.7	332.2
150°	239.6	245.2	250.8	252.2	262.0	275.1	281.7	290.7	308.8	322.3	324.3
152.5°	245.5	249.7	254.0	255.1	264.0	275.8	281.7	289.4	304.8	316.3	317.9
155°	254.3	257.5	260.6	261.4	268.2	277.2	281.7	287.9	300.1	309.3	310.2
157.5°	260.8	263.9	266.9	267.7	272.4	278.6	281.7	286.5	296.0	303.1	303.8
160°	265.2	267.6	270.0	270.5	274.3	279.2	281.7	285.8	294.0	300.1	300.5
162.5°	269.6	271.4	273.1	273.6	276.3	279.9	281.7	285.2	292.1	297.2	297.6
165°	274.5	276.1	277.7	278.1	279.3	281.0	281.7	284.2	289.1	292.8	293.2
167.5°	278.9	279.6	280.4	280.6	281.6	283.0	283.6	285.3	288.5	290.9	291.1
170°	281.7	282.5	283.3	283.5	283.5	283.6	283.6	285.3	288.5	290.9	290.9
172.5°	283.3	283.5	283.6	283.6	283.6	283.6	283.6	284.9	287.5	289.4	289.2
175°	285.4	285.4	285.4	285.4	284.8	284.0	283.6	284.4	286.0	287.3	287.3
177.5°	285.4	285.4	285.4	285.4	284.9	284.3	284.0	284.7	285.9	286.9	286.7
180°	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	398.7	398.7
2.5°	425.7	423.1
5°	547.5	550.1
7.5°	737.3	736.0
10°	916.8	928.4
12.5°	1047.6	1050.2
15°	1127.1	1132.3
17.5°	1157.9	1159.1
20°	1159.1	1156.6
22.5°	1145.1	1142.5
25°	1128.4	1127.1
27.5°	1113.0	1114.3
30°	1106.6	1110.5
32.5°	1106.6	1113.0
35°	1109.2	1115.6
37.5°	1107.9	1115.6
40°	1102.7	1111.7
42.5°	1088.7	1095.1
45°	1066.9	1074.5
47.5°	1038.6	1043.8
50°	1002.7	1007.9
52.5°	957.8	959.2
55°	904.0	909.2
57.5°	846.3	847.6
60°	782.2	786.0
62.5°	714.2	714.2
65°	642.4	645.0
67.5°	568.1	574.5
70°	492.4	493.7
72.5°	418.1	418.1
75°	341.1	342.3
77.5°	268.0	268.0
80°	198.8	200.0
82.5°	137.2	139.8
85°	85.9	85.9
87.5°	39.8	35.9
90°	7.3	7.3
92.5°	29.2	23.3
95°	101.6	84.0
97.5°	243.4	210.0
100°	350.8	311.0
102.5°	456.3	422.3
105°	590.9	572.5
107.5°	679.0	683.4
110°	712.6	731.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	715.7	744.9
115°	696.7	737.3
117.5°	656.5	701.5
120°	624.0	667.8
122.5°	592.4	635.5
125°	547.4	587.2
127.5°	506.9	540.4
130°	483.0	513.9
132.5°	461.4	489.1
135°	431.6	455.5
137.5°	407.8	427.4
140°	391.5	409.8
142.5°	378.0	393.7
145°	357.7	369.6
147.5°	342.1	352.0
150°	332.3	340.3
152.5°	323.9	329.9
155°	314.2	318.3
157.5°	306.7	309.5
160°	302.1	303.7
162.5°	299.1	300.7
165°	294.8	296.5
167.5°	291.8	292.4
170°	290.9	290.9
172.5°	288.6	288.0
175°	287.3	287.3
177.5°	286.0	285.4
180°	285.4	285.4



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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	4.21	5.24	5.04	6.11	7.18	17.39	18.42	18.22	19.29	20.36
	3H	4.92	5.86	5.77	6.73	7.83	19.24	20.17	20.08	21.05	22.15
	4H	5.23	6.12	6.09	6.99	8.11	19.89	20.78	20.75	21.66	22.77
	6H	5.49	6.31	6.37	7.19	8.32	20.33	21.15	21.21	22.03	23.16
	8H	5.56	6.34	6.45	7.25	8.38	20.46	21.24	21.34	22.14	23.27
	12H	5.59	6.33	6.48	7.23	8.38	20.53	21.28	21.42	22.17	23.33
4H	2H	11.44	12.33	12.31	13.21	14.32	17.68	18.57	18.55	19.45	20.56
	3H	13.03	13.77	13.91	14.68	15.81	19.74	20.49	20.62	21.40	22.53
	4H	13.13	13.81	14.02	14.71	15.87	20.52	21.20	21.41	22.10	23.26
	6H	13.15	13.74	14.06	14.67	15.83	21.07	21.66	21.97	22.59	23.74
	8H	13.13	13.68	14.04	14.61	15.78	21.24	21.78	22.14	22.71	23.88
	12H	13.10	13.60	14.03	14.54	15.72	21.34	21.83	22.27	22.78	23.95
8H	4H	14.59	15.14	15.50	16.06	17.24	20.59	21.14	21.50	22.07	23.24
	6H	14.84	15.30	15.78	16.26	17.43	21.23	21.69	22.17	22.65	23.82
	8H	14.86	15.27	15.81	16.22	17.41	21.45	21.86	22.40	22.82	24.00
	12H	14.84	15.20	15.79	16.15	17.38	21.61	21.96	22.56	22.91	24.15
12H	4H	14.74	15.24	15.67	16.18	17.36	20.56	21.05	21.49	22.00	23.17
	6H	15.10	15.51	16.05	16.46	17.65	21.22	21.62	22.16	22.58	23.77
	8H	15.18	15.54	16.13	16.49	17.72	21.46	21.81	22.41	22.76	24.00