

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: P937583

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

**Test Information**

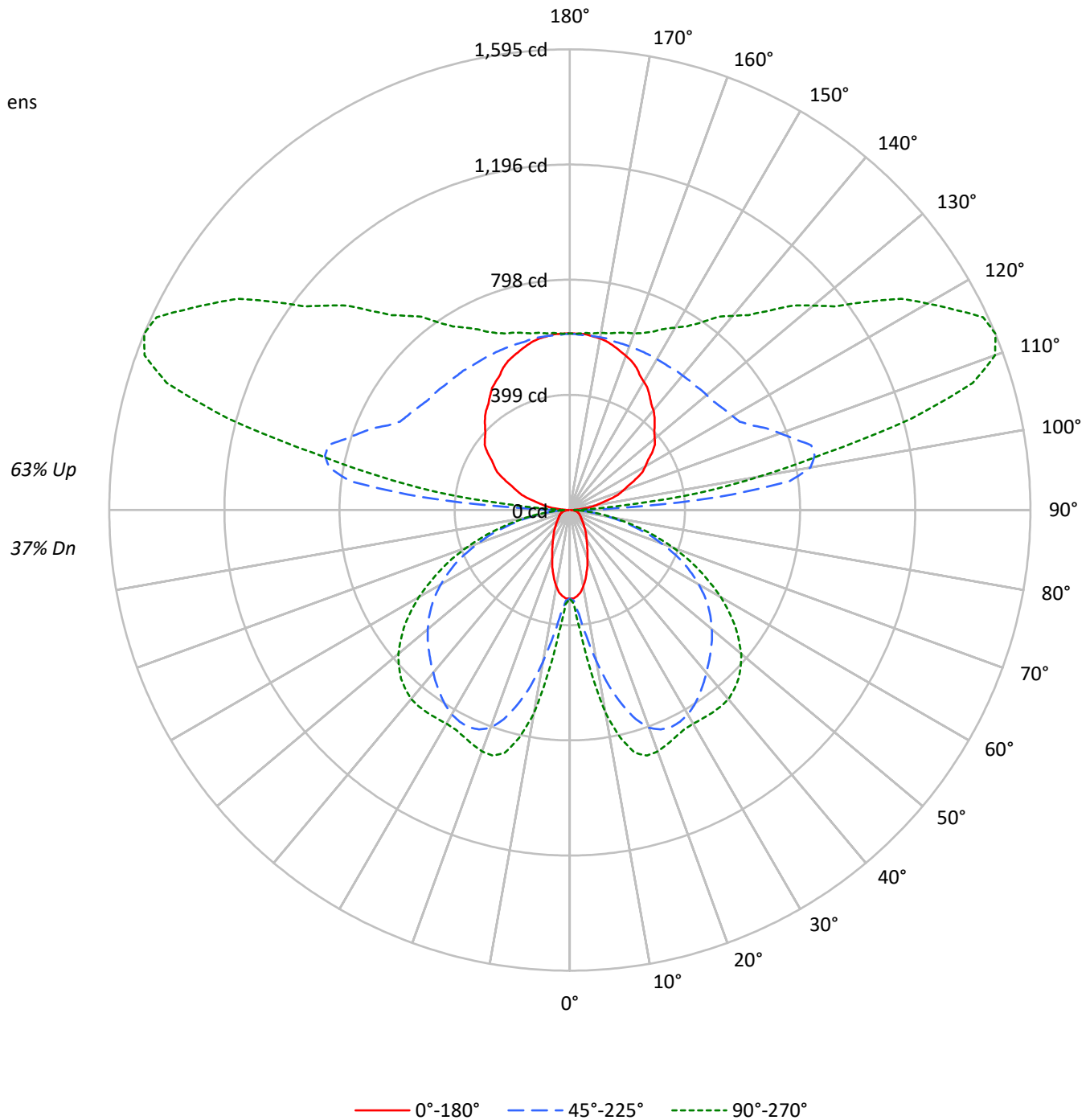
Test Method: LM-79-2019  
Report Number: P937583  
REPORT IS A COMBINATION OF REPORTS P933566 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-B2750-1D-UNV-STD-W-4-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6335.9 lumens  
Efficiency: N/A  
Efficacy: 128.8 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): 49.2  
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	0
RCR																					
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8			8

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

	0°	45°	90°
0°	2845	2845	2845
5°	2777	3286	3825
10°	2516	4787	6341
15°	2136	6249	7656
20°	1737	7237	7803
25°	1447	7567	7645
30°	1219	7609	7630
35°	1075	7477	7827
40°	936	7307	8032
45°	846	7180	8063
50°	774	7065	7929
55°	739	6899	7578
60°	754	6587	7022
65°	781	6117	6261
70°	825	5324	5288
75°	905	4329	4128
80°	969	2991	2781
85°	820	1580	1424

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8063 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.7	0.6
10°-20°	175.8	2.8
20°-30°	307.5	4.9
30°-40°	395.8	6.2
40°-50°	442.2	7.0
50°-60°	423.5	6.7
60°-70°	335.6	5.3
70°-80°	197.3	3.1
80°-90°	57.2	0.9
90°-100°	297.9	4.7
100°-110°	783.1	12.4
110°-120°	812.0	12.8
120°-130°	651.3	10.3
130°-140°	511.1	8.1
140°-150°	392.3	6.2
150°-160°	282.5	4.5
160°-170°	172.8	2.7
170°-180°	58.4	0.9
0°-30°	523.0	8.3
0°-40°	918.8	14.5
0°-60°	1784.4	28.2
0°-90°	2374.6	37.5
90°-120°	1893.0	29.9
90°-150°	3447.6	54.4
90°-180°	3961.0	62.5
0°-180°	6335.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	307	307	307	307	307	
5°	299	320	361	408	423	28
15°	224	413	696	844	871	62
25°	143	468	829	866	867	66
35°	97	448	781	825	858	60
45°	66	357	690	791	826	51
55°	47	227	586	680	699	43
65°	38	120	435	489	496	37
75°	28	74	239	262	263	29
85°	10	23	59	65	66	10
90°	4	11	31	16	16	4
95°	39	154	513	264	180	44
105°	141	214	866	1314	1226	150
115°	250	304	694	1383	1579	247
125°	349	391	631	1066	1257	309
135°	416	457	611	860	976	321
145°	482	513	603	734	792	302
155°	545	560	603	662	682	250
165°	588	595	603	627	635	166
175°	611	611	607	615	615	58
180°	611	611	611	611	611	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6
2.5°	306.6	306.6	308.6	309.6	311.6	312.6	314.5	316.5	322.4	323.4	325.4
5°	298.8	302.7	315.5	320.4	334.3	353.0	360.9	373.7	400.3	408.2	413.1
7.5°	286.9	295.8	327.4	335.2	369.8	419.0	439.8	467.4	509.8	530.5	547.2
10°	268.2	286.9	343.1	361.9	418.1	493.0	531.5	569.9	634.0	662.6	673.4
12.5°	247.5	278.1	359.9	385.5	466.4	575.8	622.2	664.6	737.5	776.0	781.9
15°	223.8	265.2	375.7	413.1	517.6	644.8	696.1	748.4	816.4	844.0	850.9
17.5°	203.1	255.4	390.5	429.9	557.1	707.0	759.2	802.6	857.8	876.6	881.5
20°	177.5	239.6	400.3	451.6	598.5	752.3	802.6	836.1	873.6	885.4	887.4
22.5°	158.7	222.8	406.2	459.5	626.1	779.9	822.3	848.9	874.6	878.5	879.5
25°	143.0	204.1	405.2	468.4	649.8	796.7	829.2	848.9	863.7	865.7	865.7
27.5°	128.2	183.4	401.3	470.3	667.5	800.6	826.3	840.1	847.0	850.9	850.9
30°	115.4	163.7	391.4	466.4	675.4	796.7	817.4	824.3	831.2	837.1	840.1
32.5°	105.5	144.9	376.7	458.5	676.4	786.8	801.6	805.6	815.4	829.2	834.2
35°	96.6	126.2	359.9	447.6	670.5	771.1	780.9	784.9	804.6	825.3	832.2
37.5°	87.8	112.4	338.2	428.9	661.6	752.3	759.2	766.1	796.7	821.3	829.2
40°	78.9	100.6	312.6	408.2	647.8	729.6	735.6	746.4	786.8	815.4	823.3
42.5°	72.0	90.7	285.0	386.5	630.1	704.0	712.9	728.7	775.0	805.6	814.4
45°	66.1	80.9	255.4	356.9	607.4	677.4	690.2	711.9	761.2	790.8	798.7
47.5°	60.1	74.0	224.8	326.4	582.7	650.8	667.5	692.2	742.5	771.1	778.0
50°	55.2	67.0	194.2	293.8	556.1	622.2	641.9	667.5	718.8	745.4	754.3
52.5°	51.3	61.1	165.6	261.3	525.5	592.6	615.3	641.9	690.2	715.8	721.8
55°	47.3	56.2	141.0	226.8	494.0	561.0	585.7	611.3	658.6	680.3	684.3
57.5°	45.4	52.3	120.3	194.2	460.5	525.5	553.1	576.8	621.2	637.9	641.9
60°	42.4	49.3	104.5	166.6	424.0	492.0	515.7	539.3	576.8	590.6	593.6
62.5°	39.4	47.3	92.7	140.0	386.5	452.6	476.2	497.9	529.5	539.3	543.3
65°	37.5	45.4	83.8	120.3	348.1	411.2	434.8	453.6	479.2	489.1	491.0
67.5°	35.5	43.4	76.9	103.5	309.6	369.8	387.5	405.2	425.0	434.8	435.8
70°	32.5	41.4	71.0	91.7	270.2	322.4	337.2	355.9	371.7	376.7	379.6
72.5°	30.6	38.5	67.0	82.8	229.7	277.1	290.9	301.7	315.5	320.4	320.4
75°	27.6	34.5	63.1	74.0	188.3	226.8	238.6	249.5	260.3	262.3	259.3
77.5°	24.6	30.6	54.2	62.1	146.9	179.5	189.3	195.2	204.1	206.1	207.1
80°	20.7	26.6	42.4	48.3	106.5	132.1	139.0	144.0	151.8	151.8	153.8
82.5°	15.8	20.7	30.6	34.5	72.0	90.7	96.6	99.6	104.5	104.5	104.5
85°	9.9	12.8	19.7	22.7	43.4	55.2	59.2	60.1	64.1	65.1	65.1
87.5°	4.9	6.9	12.8	13.8	22.7	28.6	28.6	30.6	30.6	29.6	28.6
90°	4.1	7.4	10.6	11.4	18.0	26.8	31.2	27.7	20.8	15.6	15.6
92.5°	16.4	44.3	72.2	79.2	111.3	154.1	175.5	153.8	110.4	77.9	74.8
95°	39.3	90.4	141.5	154.2	273.8	433.2	513.0	457.8	347.4	264.5	255.2
97.5°	68.0	113.1	158.2	169.4	368.9	634.8	767.7	732.8	663.0	610.6	592.8
100°	90.2	131.0	171.9	182.1	403.5	698.6	846.1	848.7	853.7	857.5	836.2
102.5°	109.1	147.2	185.3	194.8	419.3	718.6	868.3	912.7	1001.7	1068.3	1050.1
105°	141.1	173.3	205.6	213.7	431.1	720.9	865.8	965.5	1164.9	1314.4	1304.7
107.5°	173.9	204.0	234.1	241.6	433.2	688.7	816.5	955.6	1233.8	1442.4	1444.8
110°	196.0	223.2	250.3	257.1	429.9	660.3	775.5	931.0	1242.0	1475.2	1485.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	217.8	243.6	269.5	276.0	430.1	635.5	738.2	897.4	1215.5	1454.3	1469.9
115°	250.5	274.4	298.3	304.3	434.0	607.1	693.6	846.9	1153.4	1383.4	1405.0
117.5°	283.0	304.7	326.4	331.8	442.1	589.2	662.8	801.1	1077.8	1285.3	1309.4
120°	301.8	322.2	342.6	347.8	448.6	583.2	650.5	776.9	1029.7	1219.3	1242.8
122.5°	320.4	341.0	361.6	366.7	458.1	580.1	641.0	754.8	982.5	1153.2	1176.3
125°	348.6	367.4	386.1	390.9	470.8	577.4	630.7	727.5	920.8	1065.9	1087.2
127.5°	371.5	390.5	409.5	414.2	483.5	575.9	622.2	705.2	871.2	995.8	1013.7
130°	383.8	404.3	424.7	429.8	492.8	576.9	618.9	692.9	840.7	951.5	968.1
132.5°	396.6	417.0	437.4	442.5	500.3	577.4	616.0	682.1	814.4	913.7	928.6
135°	415.5	434.0	452.7	457.3	508.6	576.9	611.1	666.5	777.3	860.4	873.2
137.5°	434.7	453.2	471.5	476.1	520.8	580.5	610.2	657.1	750.7	821.0	831.5
140°	450.7	467.7	484.6	488.9	528.4	581.0	607.4	647.8	728.8	789.5	799.3
142.5°	463.0	478.7	494.4	498.3	534.7	583.1	607.4	642.9	714.0	767.3	775.8
145°	481.9	495.6	509.2	512.6	542.9	583.2	603.3	632.4	690.5	734.1	740.5
147.5°	500.8	514.1	527.3	530.7	554.9	587.2	603.3	626.2	672.0	706.3	711.6
150°	513.0	525.0	537.1	540.1	561.2	589.3	603.3	622.7	661.2	690.2	694.4
152.5°	525.7	534.8	544.0	546.2	565.3	590.6	603.3	619.8	652.7	677.5	680.7
155°	544.7	551.4	558.2	559.9	574.3	593.7	603.3	616.4	642.7	662.3	664.5
157.5°	558.6	565.2	571.7	573.4	583.3	596.6	603.3	613.5	633.9	649.2	650.7
160°	568.0	573.2	578.2	579.5	587.5	598.0	603.3	612.1	629.6	642.7	643.6
162.5°	577.4	581.2	585.1	586.1	591.8	599.5	603.3	610.7	625.4	636.5	637.3
165°	587.7	591.1	594.6	595.4	598.1	601.6	603.3	608.7	619.2	627.1	628.0
167.5°	597.1	598.8	600.5	600.9	603.0	605.9	607.4	610.8	617.7	623.0	623.3
170°	603.3	604.9	606.6	607.0	607.1	607.3	607.4	610.8	617.7	623.0	623.0
172.5°	606.6	607.0	607.3	607.4	607.4	607.4	607.4	610.1	615.6	619.7	619.4
175°	611.1	611.1	611.1	611.1	609.8	608.2	607.4	609.2	612.6	615.2	615.2
177.5°	611.1	611.1	611.1	611.1	610.1	608.9	608.2	609.5	612.3	614.4	614.0
180°	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	306.6	306.6
2.5°	327.4	325.4
5°	421.0	423.0
7.5°	567.0	566.0
10°	705.0	713.9
12.5°	805.6	807.5
15°	866.7	870.6
17.5°	890.4	891.3
20°	891.3	889.4
22.5°	880.5	878.5
25°	867.7	866.7
27.5°	855.8	856.8
30°	850.9	853.9
32.5°	850.9	855.8
35°	852.9	857.8
37.5°	851.9	857.8
40°	848.0	854.9
42.5°	837.1	842.0
45°	820.4	826.3
47.5°	798.7	802.6
50°	771.1	775.0
52.5°	736.5	737.5
55°	695.1	699.1
57.5°	650.8	651.7
60°	601.5	604.4
62.5°	549.2	549.2
65°	494.0	496.0
67.5°	436.8	441.7
70°	378.6	379.6
72.5°	321.4	321.4
75°	262.3	263.3
77.5°	206.1	206.1
80°	152.8	153.8
82.5°	105.5	107.5
85°	66.1	66.1
87.5°	30.6	27.6
90°	15.6	15.6
92.5°	62.4	50.0
95°	217.6	180.0
97.5°	521.3	449.9
100°	751.1	666.0
102.5°	977.2	904.4
105°	1265.4	1226.3
107.5°	1454.3	1463.7
110°	1526.2	1567.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1532.6	1595.3
115°	1492.0	1579.0
117.5°	1405.8	1502.3
120°	1336.4	1430.1
122.5°	1268.8	1361.2
125°	1172.3	1257.4
127.5°	1085.6	1157.4
130°	1034.4	1100.8
132.5°	988.0	1047.4
135°	924.4	975.6
137.5°	873.5	915.4
140°	838.5	877.6
142.5°	809.5	843.2
145°	766.0	791.6
147.5°	732.7	753.8
150°	711.6	728.8
152.5°	693.7	706.7
155°	673.0	681.6
157.5°	656.8	662.8
160°	647.0	650.5
162.5°	640.6	643.9
165°	631.4	634.9
167.5°	624.7	626.2
170°	623.0	623.0
172.5°	618.1	616.8
175°	615.2	615.2
177.5°	612.6	611.1
180°	611.1	611.1



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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	3.36	4.14	4.41	5.20	6.64	16.50	17.28	17.55	18.34	19.78
	3H	4.06	4.76	5.12	5.83	7.29	18.31	19.02	19.37	20.09	21.54
	4H	4.35	5.02	5.42	6.09	7.55	18.94	19.61	20.02	20.68	22.15
	6H	4.60	5.22	5.68	6.29	7.76	19.36	19.98	20.44	21.05	22.52
	8H	4.67	5.25	5.75	6.34	7.81	19.47	20.06	20.56	21.15	22.62
	12H	4.68	5.24	5.77	6.32	7.82	19.53	20.09	20.62	21.17	22.67
4H	2H	10.54	11.21	11.62	12.28	13.74	16.76	17.43	17.84	18.50	19.96
	3H	12.10	12.66	13.19	13.76	15.23	18.79	19.35	19.87	20.44	21.92
	4H	12.19	12.71	13.28	13.79	15.29	19.54	20.05	20.63	21.14	22.64
	6H	12.20	12.64	13.30	13.75	15.24	20.06	20.50	21.16	21.61	23.10
	8H	12.17	12.59	13.27	13.69	15.20	20.21	20.63	21.31	21.73	23.24
	12H	12.13	12.50	13.25	13.62	15.13	20.30	20.67	21.41	21.79	23.30
8H	4H	13.62	14.03	14.72	15.14	16.64	19.59	20.01	20.69	21.11	22.62
	6H	13.86	14.20	14.98	15.35	16.85	20.21	20.55	21.33	21.69	23.20
	8H	13.88	14.18	15.01	15.30	16.82	20.42	20.72	21.55	21.84	23.37
	12H	13.84	14.10	14.98	15.23	16.79	20.55	20.81	21.68	21.94	23.49
12H	4H	13.76	14.13	14.88	15.25	16.76	19.54	19.92	20.66	21.03	22.54
	6H	14.11	14.41	15.24	15.54	17.06	20.19	20.49	21.32	21.61	23.14
	8H	14.18	14.44	15.31	15.57	17.12	20.41	20.67	21.54	21.79	23.35