

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: P936410

Luminaire Tested: SQ4-FB-025U-100D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

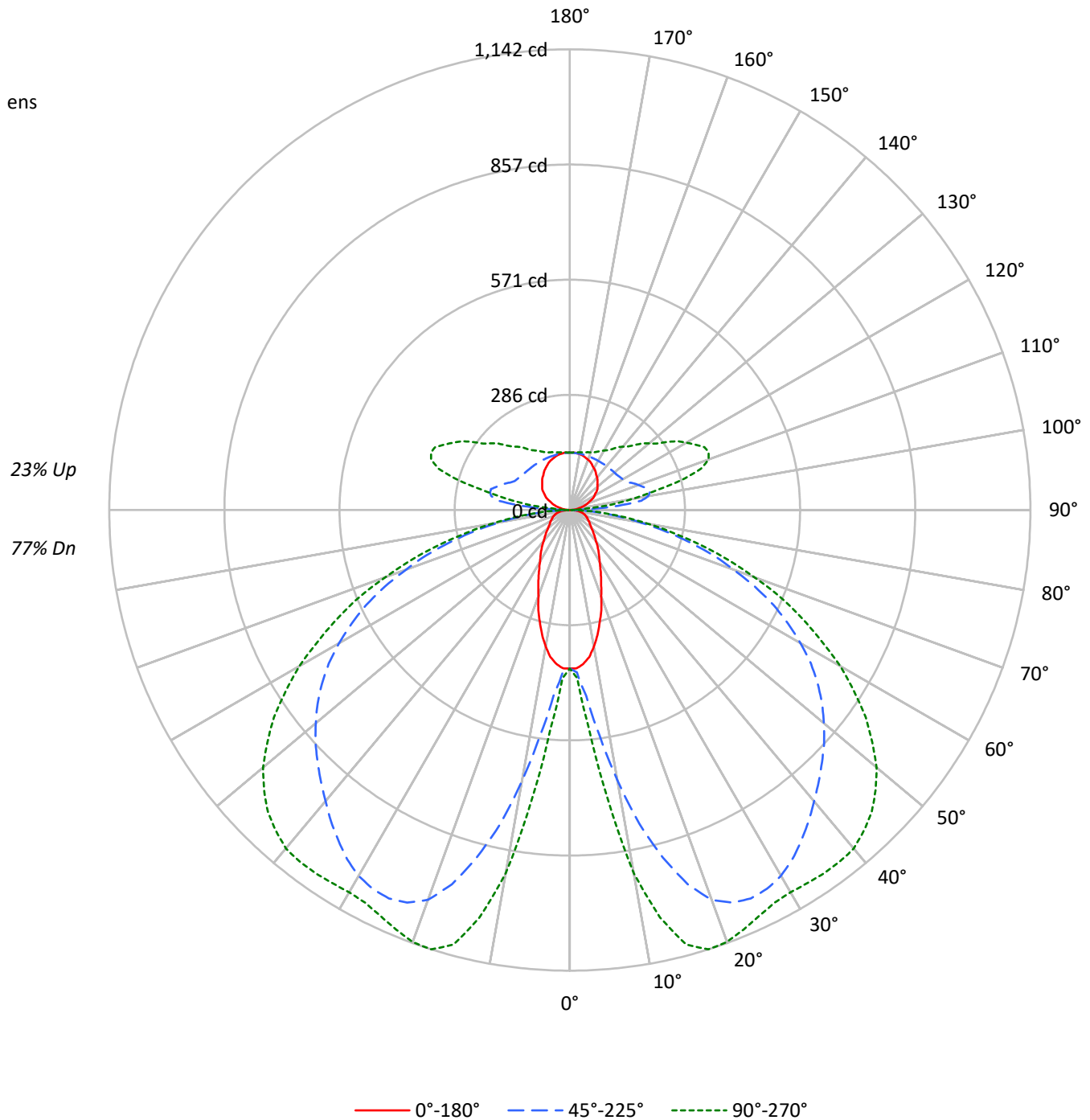
Test Method: LM-79-2019  
Report Number: P936410  
REPORT IS A COMBINATION OF REPORTS P933439 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-100D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3964.5 lumens  
Efficiency: N/A  
Efficacy: 102.2 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-Direct  
  
Input Watts (W): 38.8  
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				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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77				77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66					63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55					51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45					42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38					35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33					30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28					26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25					22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22					20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	20					17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17					16

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

	0°	45°	90°
0°	3645	3645	3645
5°	3558	4210	4901
10°	3223	6133	8123
15°	2736	8007	9809
20°	2224	9272	9997
25°	1854	9694	9794
30°	1561	9749	9776
35°	1378	9579	10028
40°	1198	9360	10289
45°	1083	9198	10330
50°	991	9051	10159
55°	947	8839	9708
60°	966	8439	8998
65°	1000	7837	8020
70°	1059	6820	6775
75°	1161	5547	5288
80°	1240	3833	3562
85°	1043	2023	1823

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10330 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.8	1.3
10°-20°	225.2	5.7
20°-30°	394.0	9.9
30°-40°	507.1	12.8
40°-50°	566.4	14.3
50°-60°	542.5	13.7
60°-70°	430.0	10.8
70°-80°	252.8	6.4
80°-90°	70.8	1.8
90°-100°	69.5	1.8
100°-110°	182.8	4.6
110°-120°	189.6	4.8
120°-130°	152.1	3.8
130°-140°	119.3	3.0
140°-150°	91.6	2.3
150°-160°	65.9	1.7
160°-170°	40.3	1.0
170°-180°	13.6	0.3
0°-30°	670.0	16.9
0°-40°	1177.1	29.7
0°-60°	2286.1	57.7
0°-90°	3039.7	76.7
90°-120°	442.0	11.1
90°-150°	804.9	20.3
90°-180°	925.0	23.3
0°-180°	3964.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	383	410	462	523	542	35
15°	287	529	892	1081	1115	80
25°	183	600	1062	1109	1110	84
35°	124	574	1000	1057	1099	77
45°	85	457	884	1013	1059	65
55°	61	290	750	872	896	55
65°	48	154	557	627	635	48
75°	35	95	306	336	337	37
85°	13	29	76	83	85	13
90°	1	3	7	4	4	2
95°	9	36	120	62	42	10
105°	33	50	202	307	286	35
115°	58	71	162	323	369	58
125°	81	91	147	249	294	72
135°	97	107	143	201	228	75
145°	112	120	141	171	185	70
155°	127	131	141	155	159	58
165°	137	139	141	146	148	39
175°	143	143	142	144	144	14
180°	143	143	143	143	143	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2.5°	392.8	392.8	395.4	396.6	399.1	400.5	403.0	405.4	413.1	414.3	416.8
5°	382.8	387.8	404.2	410.5	428.2	452.2	462.3	478.8	512.9	522.9	529.2
7.5°	367.6	379.0	419.4	429.5	473.7	536.9	563.4	598.7	653.0	679.6	701.0
10°	343.6	367.6	439.6	463.6	535.6	631.6	680.9	730.1	812.2	848.8	862.8
12.5°	317.1	356.2	461.1	493.9	597.5	737.7	797.1	851.4	944.9	994.1	1001.7
15°	286.7	339.8	481.3	529.2	663.2	826.2	891.9	958.8	1046.0	1081.3	1090.1
17.5°	260.2	327.1	500.2	550.8	713.7	905.7	972.6	1028.3	1099.0	1123.0	1129.3
20°	227.3	307.0	512.9	578.6	766.8	963.8	1028.3	1071.2	1119.2	1134.4	1136.9
22.5°	203.3	285.5	520.4	588.6	802.1	999.2	1053.5	1087.6	1120.4	1125.5	1126.7
25°	183.2	261.5	519.2	600.0	832.5	1020.6	1062.3	1087.6	1106.6	1109.1	1109.1
27.5°	164.2	235.0	514.1	602.6	855.1	1025.7	1058.6	1076.3	1085.1	1090.1	1090.1
30°	147.8	209.7	501.5	597.5	865.3	1020.6	1047.2	1056.0	1064.9	1072.4	1076.3
32.5°	135.2	185.7	482.6	587.4	866.5	1008.0	1026.9	1032.0	1044.6	1062.3	1068.7
35°	123.8	161.7	461.1	573.5	859.0	987.8	1000.5	1005.5	1030.8	1057.3	1066.1
37.5°	112.4	144.0	433.3	549.5	847.6	963.8	972.6	981.5	1020.6	1052.3	1062.3
40°	101.0	128.9	400.5	522.9	829.9	934.8	942.3	956.3	1008.0	1044.6	1054.8
42.5°	92.3	116.2	365.1	495.2	807.2	901.9	913.3	933.5	992.9	1032.0	1043.4
45°	84.6	103.5	327.1	457.3	778.1	867.9	884.2	912.0	975.2	1013.1	1023.2
47.5°	77.1	94.7	288.0	418.2	746.5	833.7	855.1	886.8	951.2	987.8	996.6
50°	70.7	85.9	248.8	376.5	712.4	797.1	822.4	855.1	920.9	954.9	966.3
52.5°	65.7	78.3	212.2	334.8	673.3	759.2	788.2	822.4	884.2	917.1	924.6
55°	60.6	72.0	180.7	290.5	632.9	718.7	750.4	783.2	843.9	871.6	876.7
57.5°	58.1	66.9	154.1	248.8	589.9	673.3	708.7	739.0	795.8	817.3	822.4
60°	54.3	63.2	133.9	213.5	543.2	630.3	660.7	691.0	739.0	756.7	760.4
62.5°	50.6	60.6	118.7	179.3	495.2	579.8	610.1	637.9	678.4	691.0	696.1
65°	48.0	58.1	107.4	154.1	445.9	526.8	557.1	581.1	613.9	626.6	629.0
67.5°	45.5	55.5	98.6	132.6	396.6	473.7	496.5	519.2	544.4	557.1	558.3
70°	41.7	53.1	90.9	117.5	346.1	413.1	432.0	456.0	476.2	482.6	486.3
72.5°	39.2	49.2	85.9	106.1	294.4	355.0	372.6	386.5	404.2	410.5	410.5
75°	35.4	44.2	80.9	94.7	241.3	290.5	305.7	319.6	333.5	336.0	332.2
77.5°	31.5	39.2	69.5	79.5	188.2	229.9	242.5	250.1	261.5	264.0	265.3
80°	26.5	34.1	54.3	61.9	136.4	169.3	178.1	184.4	194.5	194.5	197.0
82.5°	20.2	26.5	39.2	44.2	92.3	116.2	123.8	127.6	133.9	133.9	133.9
85°	12.6	16.4	25.2	29.1	55.5	70.7	75.8	77.1	82.1	83.4	83.4
87.5°	6.3	8.8	16.4	17.7	29.1	36.6	36.6	39.2	39.2	37.9	36.6
90°	1.0	1.7	2.5	2.7	4.2	6.2	7.3	6.5	4.9	3.6	3.6
92.5°	3.8	10.3	16.8	18.5	26.0	36.0	41.0	35.9	25.8	18.2	17.4
95°	9.2	21.1	33.1	36.0	64.0	101.1	119.8	106.9	81.1	61.8	59.6
97.5°	15.9	26.4	36.9	39.6	86.1	148.2	179.2	171.1	154.8	142.5	138.3
100°	21.0	30.6	40.2	42.5	94.2	163.1	197.5	198.1	199.3	200.2	195.2
102.5°	25.4	34.3	43.3	45.5	97.9	167.8	202.7	213.1	233.8	249.4	245.1
105°	33.0	40.5	48.0	49.9	100.7	168.3	202.1	225.4	272.0	306.9	304.6
107.5°	40.6	47.6	54.7	56.4	101.1	160.8	190.6	223.1	288.0	336.8	337.4
110°	45.8	52.1	58.4	60.0	100.4	154.2	181.1	217.4	290.0	344.4	346.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	50.9	56.9	62.9	64.4	100.4	148.4	172.4	209.6	283.8	339.6	343.2
115°	58.5	64.1	69.6	71.0	101.3	141.8	161.9	197.7	269.3	322.9	328.0
117.5°	66.1	71.1	76.2	77.4	103.2	137.6	154.8	187.1	251.6	300.1	305.7
120°	70.5	75.2	80.0	81.2	104.7	136.1	151.8	181.4	240.4	284.7	290.1
122.5°	74.8	79.5	84.3	85.6	106.9	135.4	149.6	176.2	229.3	269.2	274.6
125°	81.4	85.8	90.2	91.3	109.9	134.8	147.2	169.8	215.0	248.8	253.8
127.5°	86.7	91.2	95.6	96.7	112.9	134.4	145.2	164.6	203.4	232.5	236.7
130°	89.6	94.4	99.1	100.4	115.1	134.7	144.5	161.8	196.3	222.2	226.0
132.5°	92.6	97.4	102.2	103.3	116.8	134.8	143.8	159.3	190.1	213.4	216.8
135°	97.0	101.3	105.7	106.8	118.7	134.7	142.6	155.5	181.4	200.9	203.8
137.5°	101.5	105.8	110.1	111.2	121.6	135.5	142.4	153.3	175.2	191.7	194.2
140°	105.3	109.2	113.2	114.1	123.3	135.7	141.8	151.2	170.2	184.3	186.6
142.5°	108.1	111.8	115.4	116.3	124.9	136.1	141.8	150.1	166.7	179.2	181.2
145°	112.5	115.7	118.9	119.7	126.8	136.1	140.8	147.6	161.2	171.4	172.9
147.5°	116.9	120.0	123.1	123.9	129.5	137.1	140.8	146.2	156.9	164.9	166.2
150°	119.8	122.6	125.4	126.1	131.0	137.6	140.8	145.3	154.4	161.2	162.1
152.5°	122.8	124.9	127.0	127.5	131.9	137.9	140.8	144.6	152.4	158.2	159.0
155°	127.1	128.7	130.3	130.7	134.0	138.5	140.8	143.9	150.1	154.7	155.2
157.5°	130.4	131.9	133.5	133.8	136.1	139.3	140.8	143.2	148.0	151.5	151.9
160°	132.6	133.7	135.0	135.3	137.1	139.6	140.8	142.8	146.9	150.0	150.2
162.5°	134.8	135.7	136.6	136.8	138.1	140.0	140.8	142.5	146.0	148.6	148.8
165°	137.2	138.0	138.8	139.0	139.6	140.4	140.8	142.1	144.5	146.4	146.6
167.5°	139.4	139.8	140.1	140.2	140.7	141.4	141.8	142.5	144.2	145.4	145.5
170°	140.8	141.2	141.6	141.7	141.7	141.8	141.8	142.5	144.2	145.4	145.4
172.5°	141.6	141.7	141.8	141.8	141.8	141.8	141.8	142.4	143.7	144.6	144.5
175°	142.6	142.6	142.6	142.6	142.3	142.0	141.8	142.2	143.0	143.6	143.6
177.5°	142.6	142.6	142.6	142.6	142.4	142.2	142.0	142.3	142.9	143.4	143.3
180°	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	392.8	392.8
2.5°	419.4	416.8
5°	539.4	542.0
7.5°	726.4	725.0
10°	903.2	914.5
12.5°	1032.0	1034.6
15°	1110.4	1115.4
17.5°	1140.7	1141.9
20°	1141.9	1139.4
22.5°	1128.1	1125.5
25°	1111.6	1110.4
27.5°	1096.4	1097.7
30°	1090.1	1094.0
32.5°	1090.1	1096.4
35°	1092.7	1099.0
37.5°	1091.4	1099.0
40°	1086.4	1095.2
42.5°	1072.4	1078.8
45°	1051.0	1058.6
47.5°	1023.2	1028.3
50°	987.8	992.9
52.5°	943.6	944.9
55°	890.5	895.6
57.5°	833.7	835.0
60°	770.5	774.4
62.5°	703.6	703.6
65°	632.9	635.4
67.5°	559.6	566.0
70°	485.1	486.3
72.5°	411.8	411.8
75°	336.0	337.3
77.5°	264.0	264.0
80°	195.8	197.0
82.5°	135.2	137.7
85°	84.6	84.6
87.5°	39.2	35.4
90°	3.6	3.6
92.5°	14.5	11.7
95°	50.9	42.1
97.5°	121.7	105.1
100°	175.4	155.5
102.5°	228.1	211.1
105°	295.5	286.3
107.5°	339.6	341.8
110°	356.3	365.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	357.8	372.5
115°	348.4	368.6
117.5°	328.2	350.8
120°	312.0	333.8
122.5°	296.2	317.8
125°	273.7	293.6
127.5°	253.4	270.2
130°	241.5	257.0
132.5°	230.7	244.5
135°	215.9	227.8
137.5°	203.9	213.8
140°	195.7	204.9
142.5°	189.0	196.8
145°	178.9	184.8
147.5°	171.0	176.0
150°	166.2	170.2
152.5°	161.9	165.0
155°	157.2	159.2
157.5°	153.3	154.8
160°	151.0	151.8
162.5°	149.5	150.3
165°	147.4	148.2
167.5°	145.8	146.2
170°	145.4	145.4
172.5°	144.3	144.0
175°	143.6	143.6
177.5°	143.0	142.6
180°	142.6	142.6



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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	7.62	8.85	8.30	9.55	10.38	20.75	21.99	21.43	22.69	23.52
	3H	8.35	9.46	9.04	10.18	11.04	22.61	23.72	23.30	24.43	25.30
	4H	8.66	9.72	9.38	10.44	11.31	23.26	24.31	23.97	25.04	25.91
	6H	8.93	9.91	9.66	10.64	11.53	23.69	24.67	24.42	25.41	26.29
	8H	9.01	9.94	9.75	10.70	11.59	23.82	24.75	24.56	25.51	26.40
	12H	9.04	9.93	9.79	10.68	11.60	23.89	24.78	24.64	25.53	26.45
4H	2H	14.85	15.90	15.57	16.63	17.50	21.07	22.13	21.79	22.85	23.73
	3H	16.45	17.34	17.18	18.10	18.99	23.14	24.02	23.87	24.78	25.68
	4H	16.56	17.37	17.31	18.13	19.05	23.91	24.72	24.66	25.48	26.40
	6H	16.60	17.30	17.36	18.09	19.01	24.46	25.16	25.22	25.95	26.88
	8H	16.58	17.24	17.35	18.03	18.97	24.62	25.28	25.39	26.07	27.01
	12H	16.56	17.15	17.35	17.96	18.91	24.73	25.32	25.52	26.13	27.07
8H	4H	18.03	18.69	18.80	19.47	20.41	24.00	24.66	24.77	25.45	26.39
	6H	18.29	18.84	19.09	19.66	20.61	24.64	25.18	25.44	26.01	26.95
	8H	18.31	18.80	19.12	19.63	20.58	24.86	25.34	25.67	26.17	27.13
	12H	18.30	18.73	19.11	19.55	20.56	25.01	25.44	25.82	26.26	27.27
12H	4H	18.19	18.78	18.98	19.59	20.54	23.98	24.57	24.76	25.38	26.32
	6H	18.55	19.04	19.36	19.86	20.82	24.63	25.11	25.44	25.94	26.90
	8H	18.64	19.07	19.45	19.88	20.90	24.87	25.30	25.68	26.11	27.13