

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: P937686

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937686
REPORT IS A COMBINATION OF REPORTS P933567 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

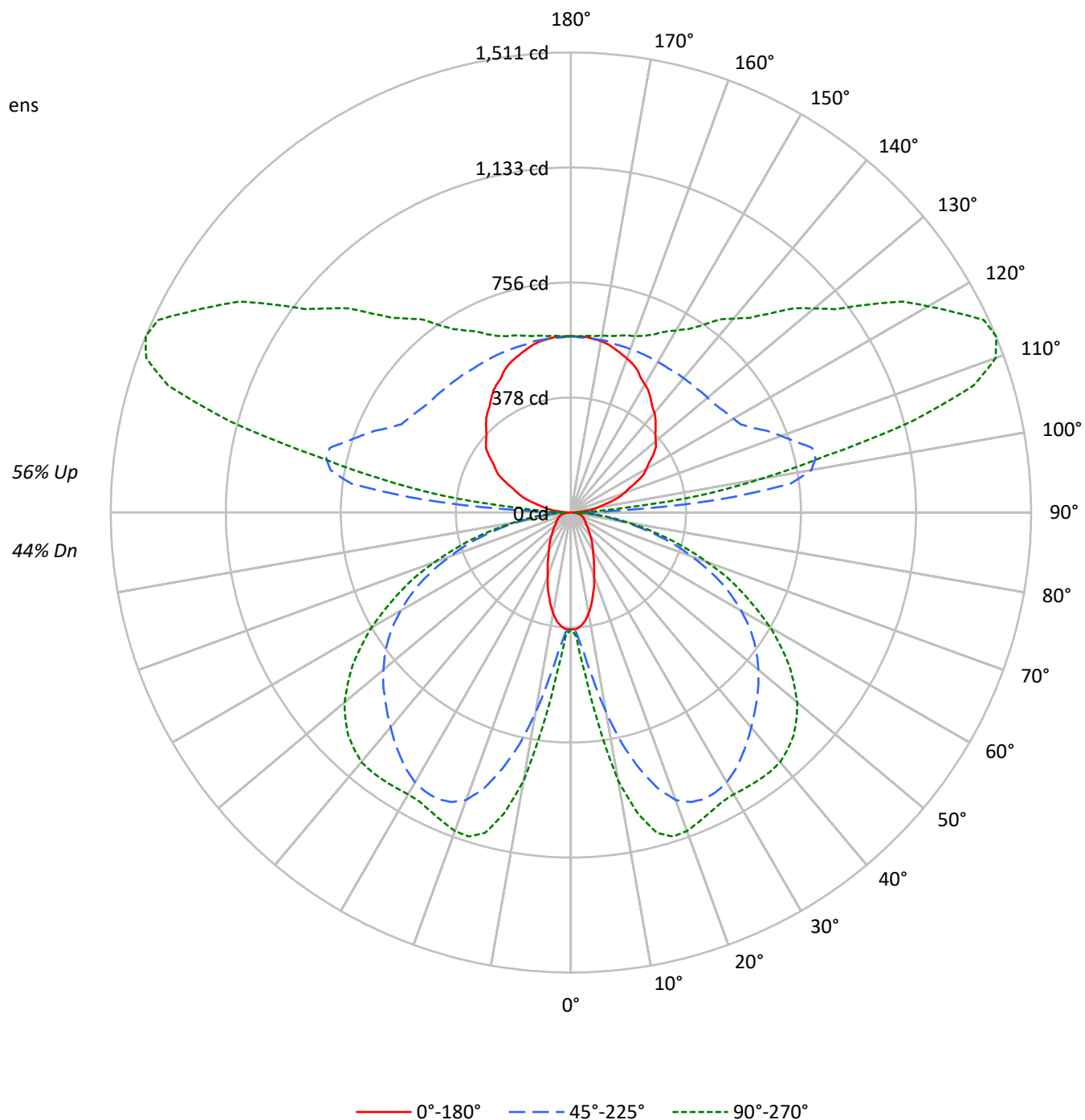
Lumens per Lamp: N/A
Luminaire Lumens: 6723.9 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 58
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

TEST NUMBER: P937686

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-5000K

Luminous Intensity Polar Plot



TEST NUMBER: P937686

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3561	3561	3561
5°	3476	4113	4788
10°	3149	5991	7936
15°	2673	7822	9583
20°	2173	9058	9766
25°	1812	9472	9568
30°	1525	9524	9551
35°	1347	9358	9797
40°	1171	9145	10052
45°	1059	8987	10092
50°	969	8842	9925
55°	925	8635	9485
60°	945	8245	8790
65°	977	7656	7835
70°	1033	6664	6619
75°	1135	5420	5166
80°	1212	3745	3480
85°	1019	1978	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10092 cd/sqm

TEST NUMBER: P937686

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	0.7
10°-20°	220.0	3.3
20°-30°	384.9	5.7
30°-40°	495.5	7.4
40°-50°	553.4	8.2
50°-60°	530.0	7.9
60°-70°	420.1	6.2
70°-80°	247.0	3.7
80°-90°	70.8	1.1
90°-100°	282.1	4.2
100°-110°	741.8	11.0
110°-120°	769.2	11.4
120°-130°	617.0	9.2
130°-140°	484.1	7.2
140°-150°	371.6	5.5
150°-160°	267.6	4.0
160°-170°	163.7	2.4
170°-180°	55.3	0.8
0°-30°	654.6	9.7
0°-40°	1150.0	17.1
0°-60°	2233.5	33.2
0°-90°	2971.4	44.2
90°-120°	1793.2	26.7
90°-150°	3265.8	48.6
90°-180°	3752.0	55.8
0°-180°	6723.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	384	384	384	384	384	
5°	374	401	452	511	530	35
15°	280	517	871	1056	1090	78
25°	179	586	1038	1084	1085	82
35°	121	560	977	1033	1074	76
45°	83	447	864	990	1034	64
55°	59	284	733	852	875	54
65°	47	151	544	612	621	47
75°	35	93	299	328	330	36
85°	12	28	74	81	83	13
90°	4	11	30	15	15	4
95°	37	146	486	251	170	41
105°	134	202	820	1245	1162	142
115°	237	288	657	1310	1496	234
125°	330	370	598	1010	1191	293
135°	394	433	579	815	924	304
145°	456	486	572	695	750	286
155°	516	530	572	627	646	237
165°	557	564	572	594	601	157
175°	579	579	575	583	583	55
180°	579	579	579	579	579	

TEST NUMBER: P937686

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8
2.5°	383.8	383.8	386.3	387.5	389.9	391.3	393.7	396.1	403.6	404.8	407.2
5°	374.0	378.9	394.9	401.1	418.3	441.8	451.7	467.7	501.1	510.9	517.1
7.5°	359.1	370.2	409.7	419.6	462.8	524.5	550.4	585.0	638.0	664.0	684.9
10°	335.7	359.1	429.5	452.9	523.2	617.1	665.2	713.3	793.5	829.3	842.9
12.5°	309.8	348.0	450.5	482.5	583.8	720.8	778.8	831.8	923.2	971.3	978.6
15°	280.1	331.9	470.2	517.1	647.9	807.2	871.3	936.7	1021.9	1056.4	1065.0
17.5°	254.2	319.6	488.7	538.1	697.3	884.9	950.3	1004.6	1073.7	1097.2	1103.3
20°	222.1	299.9	501.1	565.3	749.2	941.7	1004.6	1046.5	1093.4	1108.3	1110.7
22.5°	198.7	278.9	508.5	575.1	783.6	976.2	1029.3	1062.6	1094.6	1099.6	1100.8
25°	179.0	255.4	507.3	586.2	813.3	997.1	1037.9	1062.6	1081.1	1083.5	1083.5
27.5°	160.5	229.6	502.3	588.7	835.5	1002.1	1034.2	1051.5	1060.1	1065.0	1065.0
30°	144.4	204.8	490.0	583.8	845.4	997.1	1023.1	1031.7	1040.4	1047.8	1051.5
32.5°	132.1	181.4	471.5	573.8	846.6	984.8	1003.3	1008.3	1020.6	1037.9	1044.1
35°	121.0	157.9	450.5	560.3	839.2	965.1	977.4	982.4	1007.0	1033.0	1041.6
37.5°	109.8	140.7	423.3	536.9	828.1	941.7	950.3	958.9	997.1	1028.1	1037.9
40°	98.7	125.9	391.3	510.9	810.8	913.3	920.6	934.3	984.8	1020.6	1030.5
42.5°	90.1	113.6	356.7	483.8	788.6	881.1	892.3	912.1	970.1	1008.3	1019.4
45°	82.7	101.2	319.6	446.7	760.2	847.9	863.9	891.0	952.8	989.8	999.7
47.5°	75.3	92.6	281.4	408.5	729.4	814.5	835.5	866.4	929.3	965.1	973.7
50°	69.1	84.0	243.1	367.8	696.0	778.8	803.4	835.5	899.7	933.0	944.1
52.5°	64.2	76.5	207.3	327.1	657.8	741.7	770.1	803.4	863.9	896.0	903.4
55°	59.2	70.3	176.5	283.8	618.3	702.2	733.1	765.1	824.4	851.5	856.5
57.5°	56.8	65.4	150.6	243.1	576.4	657.8	692.4	722.0	777.5	798.5	803.4
60°	53.1	61.7	130.9	208.6	530.7	615.8	645.5	675.1	722.0	739.3	742.9
62.5°	49.4	59.2	116.0	175.2	483.8	566.5	596.1	623.3	662.8	675.1	680.0
65°	46.9	56.8	104.9	150.6	435.6	514.6	544.2	567.7	599.8	612.1	614.6
67.5°	44.5	54.3	96.3	129.5	387.5	462.8	485.0	507.3	531.9	544.2	545.5
70°	40.7	51.8	88.8	114.8	338.1	403.6	422.1	445.5	465.2	471.5	475.1
72.5°	38.3	48.1	84.0	103.7	287.6	346.8	364.1	377.6	394.9	401.1	401.1
75°	34.6	43.2	79.0	92.6	235.7	283.8	298.7	312.2	325.8	328.3	324.6
77.5°	30.8	38.3	67.9	77.7	183.9	224.6	237.0	244.3	255.4	258.0	259.2
80°	25.9	33.3	53.1	60.4	133.3	165.4	174.0	180.2	190.1	190.1	192.5
82.5°	19.7	25.9	38.3	43.2	90.1	113.6	121.0	124.7	130.9	130.9	130.9
85°	12.3	16.1	24.7	28.4	54.3	69.1	74.1	75.3	80.2	81.4	81.4
87.5°	6.2	8.6	16.1	17.3	28.4	35.8	35.8	38.3	38.3	37.0	35.8
90°	3.9	7.0	10.1	10.8	17.1	25.4	29.5	26.2	19.7	14.8	14.8
92.5°	15.5	41.9	68.4	75.0	105.4	146.0	166.3	145.7	104.6	73.8	70.9
95°	37.3	85.6	134.0	146.1	259.4	410.4	486.0	433.7	329.0	250.6	241.7
97.5°	64.4	107.1	149.8	160.5	349.4	601.3	727.2	694.1	628.0	578.4	561.5
100°	85.5	124.1	162.8	172.5	382.2	661.7	801.5	803.9	808.7	812.3	792.1
102.5°	103.3	139.4	175.5	184.6	397.2	680.7	822.5	864.6	948.9	1012.0	994.7
105°	133.7	164.2	194.7	202.4	408.3	682.8	820.1	914.6	1103.4	1245.1	1235.9
107.5°	164.8	193.2	221.7	228.8	410.4	652.4	773.4	905.2	1168.7	1366.3	1368.6
110°	185.7	211.5	237.1	243.6	407.2	625.5	734.6	881.9	1176.5	1397.4	1407.1

TEST NUMBER: P937686

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	206.3	230.8	255.3	261.4	407.4	602.0	699.3	850.0	1151.4	1377.6	1392.4
115°	237.3	259.9	282.5	288.2	411.1	575.1	657.0	802.2	1092.6	1310.4	1331.0
117.5°	268.1	288.6	309.2	314.3	418.8	558.2	627.8	758.9	1021.0	1217.6	1240.4
120°	285.9	305.2	324.6	329.4	425.0	552.5	616.2	735.9	975.4	1155.0	1177.2
122.5°	303.5	323.0	342.5	347.4	433.9	549.5	607.2	715.0	930.6	1092.4	1114.3
125°	330.3	348.0	365.8	370.2	446.0	547.0	597.5	689.1	872.3	1009.7	1029.8
127.5°	351.9	369.9	387.9	392.4	458.0	545.5	589.4	668.0	825.3	943.2	960.2
130°	363.6	382.9	402.3	407.1	466.8	546.5	586.3	656.3	796.3	901.3	917.0
132.5°	375.7	395.0	414.3	419.2	473.9	547.0	583.5	646.1	771.5	865.5	879.6
135°	393.6	411.1	428.8	433.2	481.8	546.5	578.9	631.4	736.3	815.0	827.2
137.5°	411.8	429.3	446.6	451.0	493.3	549.8	578.1	622.4	711.1	777.7	787.6
140°	426.9	443.0	459.1	463.1	500.5	550.4	575.3	613.6	690.3	747.9	757.1
142.5°	438.6	453.5	468.3	472.0	506.5	552.4	575.3	609.0	676.3	726.8	734.9
145°	456.4	469.4	482.3	485.6	514.3	552.5	571.5	599.1	654.1	695.4	701.4
147.5°	474.4	487.0	499.5	502.7	525.7	556.2	571.5	593.2	636.5	669.0	674.1
150°	486.0	497.4	508.7	511.6	531.6	558.3	571.5	589.8	626.3	653.8	657.8
152.5°	498.0	506.6	515.3	517.4	535.5	559.5	571.5	587.1	618.3	641.8	644.8
155°	515.9	522.3	528.7	530.3	544.1	562.4	571.5	583.9	608.8	627.4	629.4
157.5°	529.1	535.4	541.5	543.1	552.6	565.2	571.5	581.1	600.5	614.9	616.3
160°	538.1	542.9	547.7	548.9	556.5	566.5	571.5	579.8	596.4	608.8	609.6
162.5°	547.0	550.6	554.2	555.2	560.6	567.9	571.5	578.5	592.4	602.9	603.6
165°	556.7	559.9	563.2	564.0	566.6	569.8	571.5	576.6	586.6	594.0	594.9
167.5°	565.6	567.2	568.8	569.2	571.2	573.9	575.3	578.6	585.2	590.1	590.5
170°	571.5	573.0	574.6	575.0	575.1	575.3	575.3	578.6	585.2	590.1	590.1
172.5°	574.6	575.0	575.3	575.3	575.3	575.3	575.3	578.0	583.1	587.0	586.7
175°	578.9	578.9	578.9	578.9	577.7	576.1	575.3	577.0	580.3	582.7	582.7
177.5°	578.9	578.9	578.9	578.9	578.0	576.7	576.1	577.4	580.0	582.0	581.6
180°	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	383.8	383.8
2.5°	409.7	407.2
5°	527.0	529.5
7.5°	709.7	708.3
10°	882.4	893.5
12.5°	1008.3	1010.8
15°	1084.8	1089.7
17.5°	1114.4	1115.7
20°	1115.7	1113.1
22.5°	1102.1	1099.6
25°	1086.1	1084.8
27.5°	1071.2	1072.4
30°	1065.0	1068.8
32.5°	1065.0	1071.2
35°	1067.6	1073.7
37.5°	1066.3	1073.7
40°	1061.4	1070.0
42.5°	1047.8	1053.9
45°	1026.8	1034.2
47.5°	999.7	1004.6
50°	965.1	970.1
52.5°	921.9	923.2
55°	870.0	875.0
57.5°	814.5	815.8
60°	752.8	756.5
62.5°	687.4	687.4
65°	618.3	620.7
67.5°	546.8	552.9
70°	473.9	475.1
72.5°	402.4	402.4
75°	328.3	329.5
77.5°	258.0	258.0
80°	191.3	192.5
82.5°	132.1	134.5
85°	82.7	82.7
87.5°	38.3	34.6
90°	14.8	14.8
92.5°	59.1	47.4
95°	206.1	170.5
97.5°	493.8	426.2
100°	711.5	630.9
102.5°	925.7	856.7
105°	1198.7	1161.6
107.5°	1377.6	1386.5
110°	1445.7	1484.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1451.8	1511.2
115°	1413.3	1495.7
117.5°	1331.7	1423.0
120°	1265.9	1354.7
122.5°	1201.9	1289.4
125°	1110.4	1191.1
127.5°	1028.3	1096.3
130°	979.9	1042.7
132.5°	935.9	992.2
135°	875.6	924.2
137.5°	827.4	867.1
140°	794.3	831.4
142.5°	766.8	798.8
145°	725.6	749.8
147.5°	694.1	714.0
150°	674.1	690.3
152.5°	657.1	669.4
155°	637.5	645.7
157.5°	622.1	627.8
160°	612.9	616.2
162.5°	606.8	609.9
165°	598.1	601.4
167.5°	591.8	593.2
170°	590.1	590.1
172.5°	585.5	584.3
175°	582.7	582.7
177.5°	580.3	578.9
180°	578.9	578.9

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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	4.85	5.70	5.85	6.71	8.06	17.99	18.83	18.99	19.85	21.19
	3H	5.56	6.31	6.56	7.34	8.71	19.81	20.57	20.82	21.59	22.96
	4H	5.85	6.57	6.87	7.60	8.97	20.45	21.16	21.47	22.19	23.57
	6H	6.10	6.77	7.13	7.80	9.19	20.86	21.53	21.89	22.56	23.95
	8H	6.17	6.80	7.21	7.85	9.23	20.98	21.61	22.01	22.66	24.04
	12H	6.19	6.79	7.23	7.83	9.24	21.04	21.64	22.08	22.68	24.09
4H	2H	12.04	12.76	13.07	13.78	15.16	18.26	18.98	19.29	20.01	21.38
	3H	13.61	14.21	14.64	15.26	16.65	20.29	20.89	21.33	21.95	23.34
	4H	13.70	14.25	14.74	15.30	16.71	21.05	21.60	22.09	22.64	24.06
	6H	13.71	14.19	14.76	15.26	16.66	21.57	22.05	22.63	23.12	24.53
	8H	13.69	14.13	14.74	15.19	16.62	21.73	22.17	22.78	23.23	24.66
	12H	13.64	14.05	14.72	15.12	16.55	21.81	22.21	22.89	23.29	24.72
8H	4H	15.13	15.58	16.19	16.64	18.06	21.11	21.55	22.16	22.61	24.04
	6H	15.38	15.74	16.45	16.85	18.27	21.72	22.09	22.80	23.19	24.62
	8H	15.39	15.72	16.48	16.80	18.24	21.93	22.26	23.02	23.35	24.79
	12H	15.36	15.65	16.45	16.73	18.21	22.07	22.36	23.16	23.44	24.92
12H	4H	15.27	15.68	16.35	16.75	18.18	21.06	21.46	22.13	22.54	23.97
	6H	15.63	15.95	16.72	17.04	18.48	21.71	22.03	22.79	23.12	24.56
	8H	15.70	15.98	16.79	17.07	18.55	21.93	22.21	23.02	23.30	24.78