

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: P938459

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938459
REPORT IS A COMBINATION OF REPORTS P933631 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

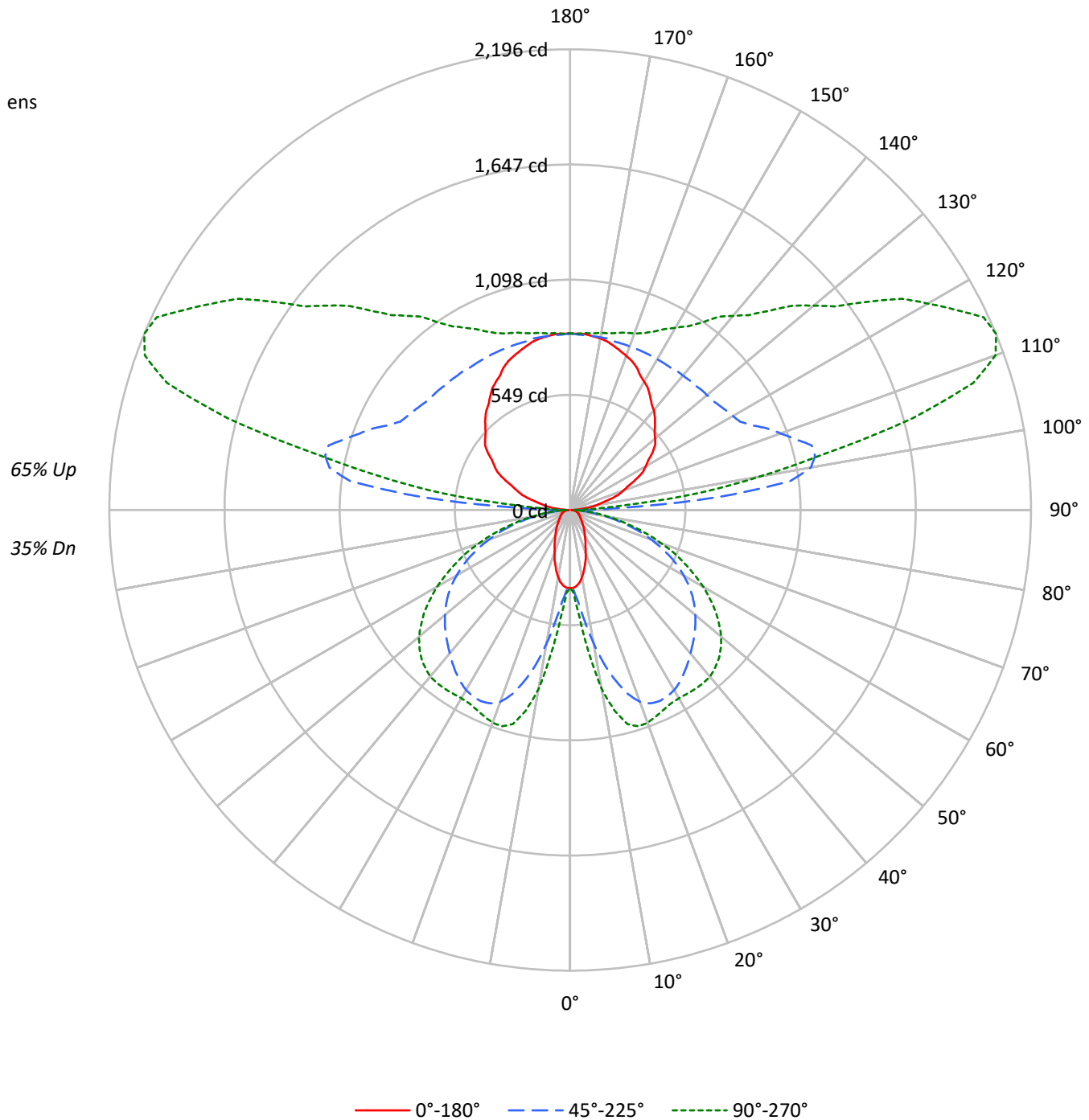
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8333.9 lumens
Efficiency: N/A
Efficacy: 115.1 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): 72.4
Input Voltage (V): NR
Input Current (A_{in}): 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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3451	3451	3451
5°	3368	3986	4639
10°	3052	5807	7691
15°	2591	7581	9287
20°	2106	8779	9465
25°	1755	9179	9273
30°	1478	9230	9256
35°	1305	9070	9495
40°	1135	8863	9742
45°	1026	8709	9780
50°	939	8569	9619
55°	897	8369	9192
60°	914	7991	8519
65°	946	7419	7594
70°	1003	6457	6416
75°	1099	5253	5006
80°	1175	3628	3374
85°	985	1916	1726

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9780 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	0.6
10°-20°	213.2	2.6
20°-30°	373.0	4.5
30°-40°	480.2	5.8
40°-50°	536.3	6.4
50°-60°	513.7	6.2
60°-70°	407.1	4.9
70°-80°	239.4	2.9
80°-90°	69.7	0.8
90°-100°	410.0	4.9
100°-110°	1078.0	12.9
110°-120°	1117.8	13.4
120°-130°	896.6	10.8
130°-140°	703.5	8.4
140°-150°	540.0	6.5
150°-160°	388.9	4.7
160°-170°	237.9	2.9
170°-180°	80.4	1.0
0°-30°	634.4	7.6
0°-40°	1114.5	13.4
0°-60°	2164.5	26.0
0°-90°	2880.7	34.6
90°-120°	2605.9	31.3
90°-150°	4745.9	56.9
90°-180°	5453.0	65.4
0°-180°	8333.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	362	389	438	495	513	33
15°	272	501	844	1024	1056	76
25°	173	568	1006	1050	1051	80
35°	117	543	947	1001	1041	73
45°	80	433	837	959	1002	62
55°	57	275	710	825	848	52
65°	45	146	527	593	602	45
75°	34	90	290	318	319	35
85°	12	28	72	79	80	13
90°	6	16	43	22	22	5
95°	54	212	706	364	248	60
105°	194	294	1192	1809	1688	206
115°	345	419	955	1904	2174	341
125°	480	538	868	1467	1731	426
135°	572	629	841	1184	1343	442
145°	663	706	830	1010	1090	416
155°	750	771	830	912	938	344
165°	809	820	830	863	874	228
175°	841	841	836	847	847	80
180°	841	841	841	841	841	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9
2.5°	371.9	371.9	374.4	375.6	377.9	379.2	381.5	383.9	391.1	392.3	394.7
5°	362.4	367.2	382.7	388.7	405.4	428.1	437.7	453.3	485.6	495.1	501.1
7.5°	348.0	358.8	397.1	406.7	448.5	508.3	533.4	566.9	618.3	643.5	663.8
10°	325.3	348.0	416.2	438.9	507.1	598.0	644.7	691.3	769.0	803.7	816.9
12.5°	300.2	337.3	436.6	467.6	565.7	698.5	754.7	806.1	894.7	941.3	948.4
15°	271.5	321.7	455.7	501.1	627.9	782.2	844.4	907.8	990.3	1023.8	1032.2
17.5°	246.4	309.7	473.6	521.5	675.8	857.5	920.9	973.6	1040.6	1063.3	1069.3
20°	215.2	290.6	485.6	547.8	726.0	912.6	973.6	1014.2	1059.7	1074.1	1076.4
22.5°	192.5	270.3	492.8	557.3	759.4	946.1	997.5	1029.8	1060.8	1065.6	1066.8
25°	173.4	247.6	491.6	568.1	788.2	966.3	1005.8	1029.8	1047.7	1050.1	1050.1
27.5°	155.5	222.5	486.8	570.5	809.7	971.1	1002.3	1019.0	1027.4	1032.2	1032.2
30°	139.9	198.5	474.8	565.7	819.3	966.3	991.5	999.8	1008.3	1015.4	1019.0
32.5°	128.0	175.8	456.9	556.1	820.4	954.4	972.3	977.1	989.1	1005.8	1011.9
35°	117.2	153.1	436.6	543.0	813.3	935.3	947.3	952.0	975.9	1001.1	1009.4
37.5°	106.4	136.3	410.2	520.3	802.5	912.6	920.9	929.3	966.3	996.3	1005.8
40°	95.7	122.0	379.2	495.1	785.8	885.1	892.2	905.4	954.4	989.1	998.7
42.5°	87.3	110.1	345.7	468.9	764.2	853.9	864.7	883.9	940.1	977.1	987.9
45°	80.1	98.0	309.7	432.9	736.7	821.7	837.2	863.5	923.4	959.2	968.8
47.5°	73.0	89.7	272.7	395.9	706.8	789.4	809.7	839.6	900.6	935.3	943.6
50°	67.0	81.4	235.6	356.5	674.5	754.7	778.6	809.7	871.9	904.2	914.9
52.5°	62.2	74.1	200.9	317.0	637.5	718.8	746.3	778.6	837.2	868.3	875.5
55°	57.4	68.2	171.1	275.1	599.2	680.5	710.5	741.5	799.0	825.2	830.0
57.5°	55.0	63.4	145.9	235.6	558.6	637.5	671.0	699.7	753.5	773.8	778.6
60°	51.4	59.8	126.8	202.1	514.3	596.8	625.6	654.3	699.7	716.4	720.0
62.5°	47.9	57.4	112.4	169.8	468.9	549.0	577.7	604.0	642.3	654.3	659.0
65°	45.4	55.0	101.6	145.9	422.2	498.7	527.4	550.2	581.3	593.2	595.6
67.5°	43.1	52.6	93.3	125.5	375.6	448.5	470.1	491.6	515.5	527.4	528.6
70°	39.5	50.2	86.1	111.2	327.7	391.1	409.0	431.8	450.9	456.9	460.5
72.5°	37.1	46.6	81.4	100.5	278.7	336.1	352.8	366.0	382.7	388.7	388.7
75°	33.5	41.8	76.6	89.7	228.5	275.1	289.5	302.6	315.7	318.2	314.5
77.5°	29.9	37.1	65.8	75.3	178.2	217.7	229.6	236.8	247.6	250.0	251.2
80°	25.1	32.3	51.4	58.6	129.2	160.3	168.6	174.6	184.2	184.2	186.6
82.5°	19.1	25.1	37.1	41.8	87.3	110.1	117.2	120.8	126.8	126.8	126.8
85°	11.9	15.6	23.9	27.5	52.6	67.0	71.8	73.0	77.8	78.9	78.9
87.5°	6.0	8.3	15.6	16.7	27.5	34.7	34.7	37.1	37.1	35.8	34.7
90°	5.6	10.1	14.7	15.8	24.9	36.9	42.9	38.1	28.6	21.5	21.5
92.5°	22.5	60.9	99.4	109.0	153.2	212.1	241.6	211.7	152.1	107.3	103.0
95°	54.2	124.5	194.7	212.3	376.9	596.5	706.3	630.3	478.2	364.1	351.2
97.5°	93.7	155.7	217.7	233.2	507.7	873.8	1056.9	1008.8	912.7	840.6	816.0
100°	124.2	180.4	236.6	250.6	555.3	961.6	1164.7	1168.2	1175.3	1180.5	1151.2
102.5°	150.2	202.7	255.1	268.2	577.2	989.2	1195.2	1256.4	1378.8	1470.7	1445.6
105°	194.2	238.7	283.0	294.2	593.3	992.2	1191.7	1329.0	1603.5	1809.4	1795.9
107.5°	239.4	280.8	322.2	332.6	596.4	948.2	1124.0	1315.5	1698.4	1985.6	1988.8
110°	269.8	307.2	344.7	354.0	591.9	909.0	1067.5	1281.6	1709.7	2030.7	2044.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	299.8	335.5	371.1	380.0	592.1	874.8	1016.2	1235.3	1673.4	2001.9	2023.5
115°	345.0	377.8	410.7	418.9	597.5	835.6	954.7	1165.7	1587.7	1904.3	1934.2
117.5°	389.6	419.5	449.3	456.7	608.6	811.1	912.3	1102.8	1483.6	1769.3	1802.5
120°	415.5	443.6	471.7	478.7	617.6	802.8	895.4	1069.4	1417.4	1678.4	1710.7
122.5°	440.9	469.2	497.7	504.7	630.6	798.5	882.4	1039.1	1352.5	1587.6	1619.3
125°	479.9	505.7	531.6	538.0	648.1	794.9	868.3	1001.4	1267.6	1467.3	1496.6
127.5°	511.5	537.6	563.6	570.2	665.6	792.8	856.5	970.8	1199.3	1370.8	1395.5
130°	528.4	556.5	584.6	591.6	678.4	794.1	851.9	953.7	1157.2	1309.8	1332.6
132.5°	545.9	574.1	602.1	609.2	688.7	794.9	848.0	939.0	1121.2	1257.8	1278.3
135°	571.9	597.5	623.0	629.4	700.1	794.1	841.2	917.5	1070.0	1184.4	1202.1
137.5°	598.4	623.7	649.1	655.4	717.0	799.1	840.1	904.5	1033.5	1130.3	1144.7
140°	620.5	643.8	667.2	673.0	727.4	799.9	836.1	891.8	1003.2	1086.7	1100.2
142.5°	637.4	659.0	680.5	685.9	736.0	802.7	836.1	885.1	982.9	1056.3	1067.9
145°	663.4	682.2	701.0	705.7	747.3	802.8	830.5	870.5	950.5	1010.5	1019.3
147.5°	689.3	707.7	725.9	730.6	763.9	808.3	830.5	862.0	924.9	972.1	979.4
150°	706.3	722.9	739.3	743.5	772.5	811.1	830.5	857.1	910.2	950.1	956.0
152.5°	723.8	736.3	748.8	752.0	778.2	813.0	830.5	853.2	898.6	932.7	937.1
155°	749.7	759.1	768.3	770.7	790.6	817.2	830.5	848.6	884.7	911.8	914.8
157.5°	768.9	778.0	786.9	789.2	803.0	821.3	830.5	844.5	872.6	893.7	895.7
160°	781.9	788.9	796.0	797.7	808.7	823.2	830.5	842.5	866.6	884.6	885.8
162.5°	794.9	800.2	805.4	806.8	814.6	825.2	830.5	840.6	861.0	876.2	877.3
165°	809.0	813.7	818.5	819.7	823.3	828.1	830.5	837.7	852.3	863.2	864.3
167.5°	822.0	824.2	826.5	827.0	830.0	834.1	836.1	840.9	850.4	857.5	858.1
170°	830.5	832.7	835.0	835.6	835.7	836.0	836.1	840.9	850.4	857.5	857.5
172.5°	835.0	835.5	836.0	836.1	836.1	836.1	836.1	839.9	847.4	853.0	852.6
175°	841.2	841.2	841.2	841.2	839.4	837.2	836.1	838.5	843.2	846.9	846.9
177.5°	841.2	841.2	841.2	841.2	839.9	838.2	837.3	839.2	842.9	845.7	845.1
180°	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	371.9	371.9
2.5°	397.1	394.7
5°	510.7	513.1
7.5°	687.7	686.5
10°	855.2	865.9
12.5°	977.1	979.6
15°	1051.3	1056.1
17.5°	1080.0	1081.2
20°	1081.2	1078.8
22.5°	1068.1	1065.6
25°	1052.5	1051.3
27.5°	1038.1	1039.3
30°	1032.2	1035.8
32.5°	1032.2	1038.1
35°	1034.6	1040.6
37.5°	1033.3	1040.6
40°	1028.6	1037.0
42.5°	1015.4	1021.4
45°	995.1	1002.3
47.5°	968.8	973.6
50°	935.3	940.1
52.5°	893.4	894.7
55°	843.2	848.0
57.5°	789.4	790.6
60°	729.6	733.2
62.5°	666.2	666.2
65°	599.2	601.6
67.5°	529.9	535.9
70°	459.3	460.5
72.5°	389.9	389.9
75°	318.2	319.3
77.5°	250.0	250.0
80°	185.4	186.6
82.5°	128.0	130.3
85°	80.1	80.1
87.5°	37.1	33.5
90°	21.5	21.5
92.5°	85.9	68.9
95°	299.5	247.8
97.5°	717.7	619.3
100°	1034.1	916.8
102.5°	1345.3	1244.9
105°	1742.0	1688.0
107.5°	2001.9	2014.9
110°	2101.0	2157.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2109.8	2196.1
115°	2053.9	2173.6
117.5°	1935.2	2067.9
120°	1839.6	1968.6
122.5°	1746.6	1873.8
125°	1613.7	1730.9
127.5°	1494.3	1593.2
130°	1423.9	1515.2
132.5°	1360.0	1441.8
135°	1272.6	1343.1
137.5°	1202.4	1260.1
140°	1154.2	1208.1
142.5°	1114.3	1160.7
145°	1054.5	1089.6
147.5°	1008.5	1037.7
150°	979.7	1003.2
152.5°	954.9	972.7
155°	926.5	938.3
157.5°	904.0	912.3
160°	890.6	895.4
162.5°	881.8	886.3
165°	869.1	873.9
167.5°	860.1	862.1
170°	857.5	857.5
172.5°	850.9	849.1
175°	846.9	846.9
177.5°	843.2	841.2
180°	841.2	841.2



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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	3.69	4.45	4.76	5.53	7.00	16.83	17.59	17.90	18.67	20.14
	3H	4.38	5.07	5.47	6.16	7.65	18.64	19.33	19.72	20.41	21.90
	4H	4.68	5.33	5.77	6.42	7.91	19.27	19.92	20.37	21.01	22.51
	6H	4.92	5.52	6.03	6.61	8.12	19.69	20.28	20.79	21.38	22.89
	8H	4.99	5.56	6.10	6.67	8.17	19.80	20.37	20.90	21.47	22.98
	12H	5.00	5.54	6.11	6.65	8.17	19.85	20.40	20.97	21.50	23.02
4H	2H	10.87	11.51	11.97	12.60	14.10	17.09	17.74	18.19	18.83	20.32
	3H	12.43	12.97	13.53	14.08	15.59	19.11	19.65	20.22	20.77	22.28
	4H	12.52	13.02	13.63	14.12	15.65	19.86	20.36	20.98	21.47	23.00
	6H	12.52	12.95	13.64	14.08	15.60	20.38	20.81	21.50	21.94	23.46
	8H	12.50	12.90	13.62	14.02	15.56	20.54	20.94	21.66	22.06	23.60
	12H	12.45	12.81	13.58	13.94	15.49	20.62	20.98	21.75	22.11	23.66
8H	4H	13.94	14.34	15.06	15.46	17.00	19.92	20.32	21.04	21.44	22.98
	6H	14.18	14.51	15.32	15.67	17.21	20.53	20.86	21.67	22.02	23.56
	8H	14.20	14.49	15.34	15.63	17.19	20.74	21.03	21.89	22.17	23.73
	12H	14.16	14.42	15.31	15.55	17.15	20.87	21.12	22.02	22.26	23.86
12H	4H	14.08	14.44	15.21	15.57	17.12	19.86	20.23	21.00	21.36	22.90
	6H	14.43	14.72	15.58	15.87	17.42	20.51	20.80	21.66	21.94	23.50
	8H	14.50	14.75	15.65	15.89	17.48	20.73	20.98	21.88	22.12	23.71