

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: P938159

Luminaire Tested: SQ4-FB-125U-125D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938159
REPORT IS A COMBINATION OF REPORTS P933600 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-125D-93050-1D-UNV-STD-W-4-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

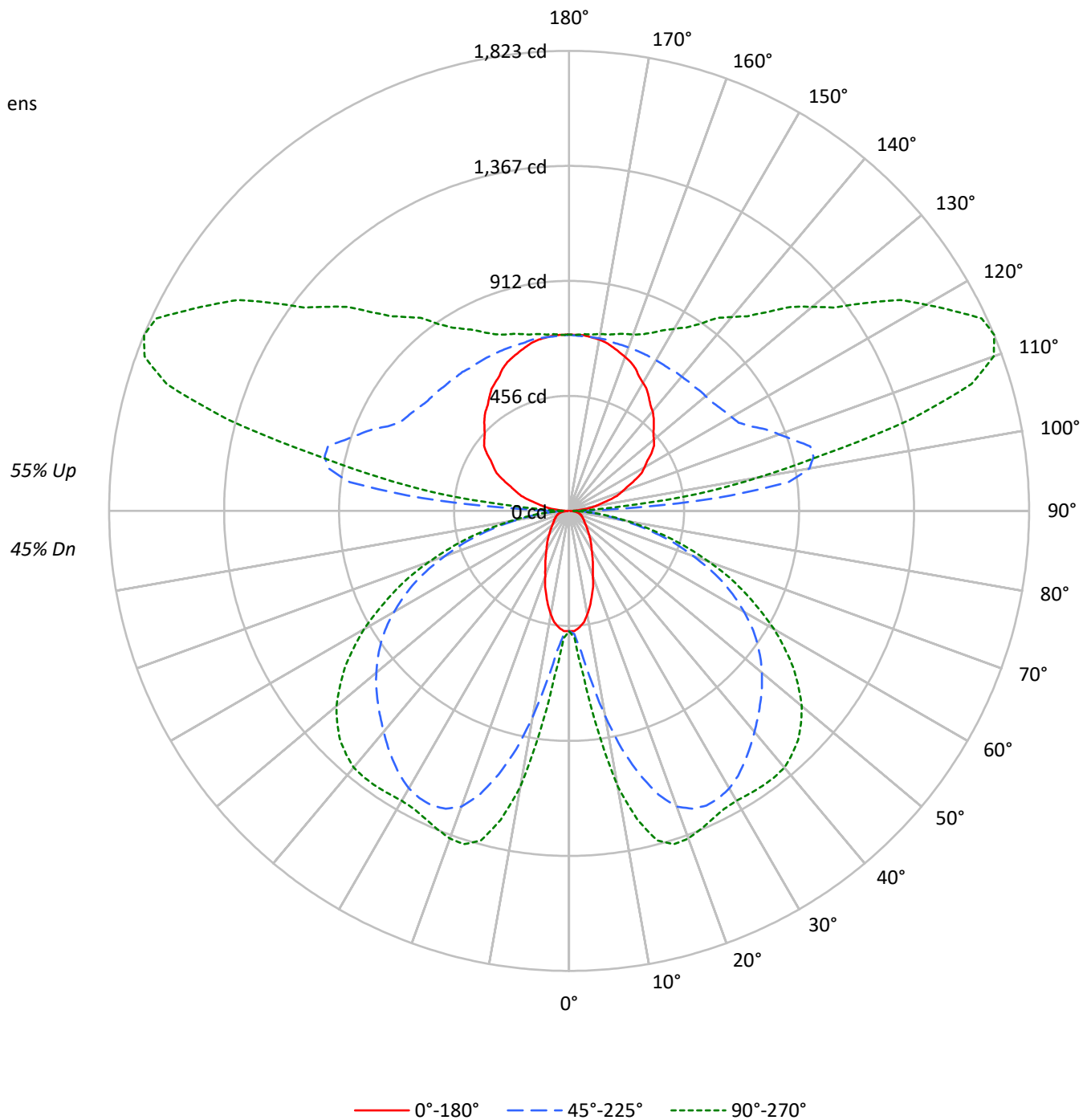
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8214.4 lumens
Efficiency: N/A
Efficacy: 109.2 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: General Diffuse

Input Watts (W): 75.2
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42	37
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4420	4420	4420
5°	4314	5105	5941
10°	3908	7435	9850
15°	3318	9707	11893
20°	2698	11242	12121
25°	2248	11755	11875
30°	1893	11820	11852
35°	1671	11614	12159
40°	1455	11350	12475
45°	1314	11154	12524
50°	1203	10974	12318
55°	1148	10716	11771
60°	1172	10232	10909
65°	1213	9501	9724
70°	1282	8270	8216
75°	1407	6726	6412
80°	1502	4648	4321
85°	1267	2453	2211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12524 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.6	0.8
10°-20°	273.1	3.3
20°-30°	477.7	5.8
30°-40°	614.9	7.5
40°-50°	686.8	8.4
50°-60°	657.8	8.0
60°-70°	521.3	6.3
70°-80°	306.5	3.7
80°-90°	87.8	1.1
90°-100°	340.4	4.1
100°-110°	894.9	10.9
110°-120°	927.9	11.3
120°-130°	744.3	9.1
130°-140°	584.0	7.1
140°-150°	448.2	5.5
150°-160°	322.8	3.9
160°-170°	197.5	2.4
170°-180°	66.7	0.8
0°-30°	812.4	9.9
0°-40°	1427.3	17.4
0°-60°	2771.9	33.7
0°-90°	3687.6	44.9
90°-120°	2163.2	26.3
90°-150°	3939.7	48.0
90°-180°	4527.0	55.1
0°-180°	8214.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	476	476	476	476	476	
5°	464	498	561	634	657	43
15°	348	642	1081	1311	1352	97
25°	222	728	1288	1345	1346	102
35°	150	695	1213	1282	1332	94
45°	103	554	1072	1228	1284	79
55°	74	352	910	1057	1086	67
65°	58	187	675	760	770	58
75°	43	115	371	407	409	45
85°	15	35	92	101	103	16
90°	5	13	36	18	18	5
95°	45	176	586	302	206	50
105°	161	244	989	1502	1401	171
115°	286	348	792	1581	1804	283
125°	398	447	721	1218	1437	354
135°	475	522	698	983	1115	367
145°	551	586	689	839	904	345
155°	622	640	689	757	779	286
165°	672	680	689	716	726	190
175°	698	698	694	703	703	66
180°	698	698	698	698	698	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3	476.3
2.5°	476.3	476.3	479.4	480.9	484.0	485.5	488.6	491.7	500.8	502.4	505.4
5°	464.1	470.2	490.1	497.7	519.2	548.3	560.6	580.5	621.8	634.1	641.8
7.5°	445.7	459.5	508.5	520.7	574.3	650.9	683.1	726.0	791.8	824.0	850.0
10°	416.6	445.7	533.0	562.1	649.4	765.8	825.5	885.2	984.8	1029.3	1046.1
12.5°	384.4	431.9	559.0	598.9	724.5	894.5	966.4	1032.3	1145.7	1205.4	1214.5
15°	347.7	412.0	583.6	641.8	804.1	1001.7	1081.3	1162.5	1268.2	1311.0	1321.8
17.5°	315.5	396.7	606.5	667.8	865.3	1098.1	1179.3	1246.8	1332.5	1361.6	1369.2
20°	275.7	372.2	621.8	701.5	929.7	1168.7	1246.8	1298.8	1357.0	1375.4	1378.5
22.5°	246.6	346.1	631.0	713.7	972.6	1211.5	1277.4	1318.7	1358.6	1364.7	1366.2
25°	222.1	317.1	629.5	727.5	1009.3	1237.5	1288.1	1318.7	1341.7	1344.8	1344.8
27.5°	199.1	284.9	623.4	730.6	1036.9	1243.7	1283.5	1305.0	1315.7	1321.8	1321.8
30°	179.2	254.3	608.1	724.5	1049.2	1237.5	1269.7	1280.4	1291.1	1300.4	1305.0
32.5°	163.9	225.1	585.1	712.2	1050.7	1222.2	1245.2	1251.3	1266.7	1288.1	1295.7
35°	150.1	196.1	559.0	695.3	1041.5	1197.7	1213.0	1219.2	1249.8	1282.0	1292.7
37.5°	136.3	174.6	525.4	666.3	1027.7	1168.7	1179.3	1190.1	1237.5	1275.8	1288.1
40°	122.6	156.2	485.5	634.1	1006.3	1133.4	1142.6	1159.4	1222.2	1266.7	1278.9
42.5°	111.8	140.9	442.6	600.4	978.7	1093.6	1107.4	1131.9	1203.9	1251.3	1265.1
45°	102.6	125.6	396.7	554.4	943.4	1052.2	1072.2	1105.8	1182.4	1228.4	1240.6
47.5°	93.4	114.9	349.2	507.0	905.2	1010.9	1036.9	1075.2	1153.3	1197.7	1208.5
50°	85.8	104.2	301.7	456.4	863.8	966.4	997.1	1036.9	1116.5	1157.9	1171.7
52.5°	79.7	95.0	257.3	405.9	816.4	920.5	955.8	997.1	1072.2	1112.0	1121.1
55°	73.5	87.3	219.0	352.3	767.3	871.5	909.8	949.6	1023.1	1056.8	1062.9
57.5°	70.4	81.2	186.8	301.7	715.3	816.4	859.3	896.0	964.9	991.0	997.1
60°	65.9	76.6	162.4	258.9	658.6	764.3	801.1	837.8	896.0	917.5	922.0
62.5°	61.3	73.5	144.0	217.5	600.4	703.0	739.8	773.5	822.5	837.8	843.9
65°	58.2	70.4	130.2	186.8	540.7	638.7	675.4	704.6	744.4	759.7	762.8
67.5°	55.1	67.4	119.5	160.8	480.9	574.3	601.9	629.5	660.1	675.4	677.0
70°	50.5	64.4	110.2	142.5	419.6	500.8	523.8	552.9	577.4	585.1	589.7
72.5°	47.5	59.7	104.2	128.6	356.9	430.4	451.9	468.7	490.1	497.7	497.7
75°	42.9	53.6	98.0	114.9	292.5	352.3	370.7	387.5	404.3	407.4	402.8
77.5°	38.3	47.5	84.3	96.5	228.2	278.8	294.1	303.2	317.1	320.1	321.6
80°	32.1	41.4	65.9	75.0	165.4	205.2	216.0	223.6	235.9	235.9	239.0
82.5°	24.5	32.1	47.5	53.6	111.8	140.9	150.1	154.7	162.4	162.4	162.4
85°	15.3	19.9	30.6	35.2	67.4	85.8	91.9	93.4	99.6	101.1	101.1
87.5°	7.7	10.7	19.9	21.5	35.2	44.4	44.4	47.5	47.5	46.0	44.4
90°	4.7	8.4	12.2	13.1	20.6	30.6	35.6	31.6	23.7	17.8	17.8
92.5°	18.7	50.6	82.5	90.4	127.2	176.1	200.6	175.8	126.3	89.1	85.5
95°	45.0	103.3	161.7	176.2	312.9	495.1	586.3	523.2	397.0	302.3	291.6
97.5°	77.8	129.2	180.7	193.5	421.4	725.3	877.3	837.4	757.6	697.8	677.4
100°	103.1	149.8	196.4	208.1	461.0	798.2	966.8	969.7	975.6	979.9	955.6
102.5°	124.6	168.2	211.7	222.6	479.1	821.2	992.1	1043.0	1144.7	1220.9	1200.1
105°	161.2	198.1	235.0	244.2	492.6	823.8	989.3	1103.3	1331.1	1502.0	1490.8
107.5°	198.7	233.1	267.5	276.1	495.1	787.1	933.1	1092.1	1409.9	1648.2	1650.9
110°	224.0	255.1	286.0	293.8	491.3	754.6	886.2	1063.9	1419.3	1685.8	1697.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	248.8	278.4	307.9	315.4	491.4	726.2	843.6	1025.5	1389.2	1661.9	1679.8
115°	286.3	313.6	341.0	347.8	496.0	693.6	792.5	967.6	1318.0	1580.8	1605.6
117.5°	323.4	348.2	373.0	379.2	505.3	673.3	757.3	915.4	1231.6	1468.7	1496.2
120°	345.0	368.3	391.7	397.5	512.8	666.5	743.3	887.8	1176.6	1393.3	1420.1
122.5°	366.0	389.6	413.1	419.0	523.5	662.8	732.5	862.6	1122.8	1317.8	1344.3
125°	398.4	419.8	441.3	446.6	538.0	659.9	720.8	831.3	1052.2	1218.0	1242.3
127.5°	424.6	446.2	467.9	473.3	552.5	658.1	710.9	805.8	995.6	1137.9	1158.4
130°	438.6	462.0	485.3	491.1	563.2	659.2	707.2	791.7	960.6	1087.3	1106.2
132.5°	453.2	476.6	499.9	505.7	571.8	659.9	703.9	779.5	930.8	1044.2	1061.1
135°	474.8	496.0	517.2	522.5	581.1	659.2	698.3	761.7	888.3	983.3	997.9
137.5°	496.8	517.8	538.8	544.1	595.1	663.3	697.3	750.8	857.9	938.2	950.1
140°	515.0	534.4	553.8	558.7	603.8	664.0	694.1	740.3	832.8	902.2	913.4
142.5°	529.1	547.0	564.9	569.4	611.0	666.4	694.1	734.7	815.9	876.8	886.4
145°	550.7	566.3	581.9	585.8	620.3	666.4	689.4	722.6	789.0	838.9	846.2
147.5°	572.2	587.4	602.7	606.5	634.1	670.9	689.4	715.5	767.8	807.0	813.1
150°	586.3	600.0	613.8	617.2	641.3	673.3	689.4	711.5	755.6	788.8	793.6
152.5°	600.8	611.3	621.7	624.3	646.0	674.9	689.4	708.2	745.9	774.2	777.9
155°	622.4	630.1	637.8	639.7	656.2	678.3	689.4	704.4	734.4	756.9	759.3
157.5°	638.3	645.8	653.3	655.2	666.6	681.8	689.4	701.0	724.4	741.9	743.6
160°	649.1	654.9	660.8	662.2	671.3	683.3	689.4	699.3	719.3	734.4	735.4
162.5°	659.9	664.2	668.6	669.7	676.2	685.0	689.4	697.8	714.7	727.4	728.3
165°	671.5	675.5	679.5	680.5	683.5	687.4	689.4	695.4	707.5	716.5	717.5
167.5°	682.4	684.2	686.1	686.6	689.1	692.4	694.1	698.1	705.9	711.9	712.4
170°	689.4	691.3	693.2	693.6	693.8	694.0	694.1	698.1	705.9	711.9	711.9
172.5°	693.2	693.5	694.0	694.1	694.1	694.1	694.1	697.2	703.4	708.1	707.7
175°	698.3	698.3	698.3	698.3	696.9	695.0	694.1	696.1	700.0	702.9	702.9
177.5°	698.3	698.3	698.3	698.3	697.2	695.7	695.0	696.5	699.7	702.0	701.6
180°	698.3	698.3	698.3	698.3	698.3	698.3	698.3	698.3	698.3	698.3	698.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	476.3	476.3
2.5°	508.5	505.4
5°	654.0	657.1
7.5°	880.7	879.2
10°	1095.1	1108.9
12.5°	1251.3	1254.4
15°	1346.3	1352.4
17.5°	1383.1	1384.6
20°	1384.6	1381.5
22.5°	1367.7	1364.7
25°	1347.8	1346.3
27.5°	1329.4	1330.9
30°	1321.8	1326.4
32.5°	1321.8	1329.4
35°	1324.9	1332.5
37.5°	1323.3	1332.5
40°	1317.2	1327.9
42.5°	1300.4	1308.0
45°	1274.3	1283.5
47.5°	1240.6	1246.8
50°	1197.7	1203.9
52.5°	1144.1	1145.7
55°	1079.8	1085.9
57.5°	1010.9	1012.4
60°	934.3	938.9
62.5°	853.1	853.1
65°	767.3	770.4
67.5°	678.5	686.2
70°	588.2	589.7
72.5°	499.3	499.3
75°	407.4	409.0
77.5°	320.1	320.1
80°	237.4	239.0
82.5°	163.9	166.9
85°	102.6	102.6
87.5°	47.5	42.9
90°	17.8	17.8
92.5°	71.3	57.2
95°	248.6	205.7
97.5°	595.8	514.1
100°	858.4	761.1
102.5°	1116.7	1033.4
105°	1446.1	1401.3
107.5°	1661.8	1672.6
110°	1744.1	1790.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1751.4	1823.1
115°	1705.0	1804.3
117.5°	1606.5	1716.6
120°	1527.1	1634.2
122.5°	1449.8	1555.4
125°	1339.5	1436.9
127.5°	1240.4	1322.5
130°	1182.0	1257.9
132.5°	1129.0	1196.9
135°	1056.4	1114.9
137.5°	998.1	1046.0
140°	958.1	1002.9
142.5°	925.0	963.5
145°	875.4	904.5
147.5°	837.2	861.4
150°	813.3	832.8
152.5°	792.6	807.5
155°	769.1	778.9
157.5°	750.5	757.3
160°	739.3	743.3
162.5°	732.1	735.8
165°	721.5	725.5
167.5°	714.0	715.6
170°	711.9	711.9
172.5°	706.3	704.8
175°	702.9	702.9
177.5°	700.0	698.3
180°	698.3	698.3



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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	5.67	6.52	6.66	7.53	8.87	18.81	19.66	19.80	20.67	22.01
	3H	6.37	7.14	7.38	8.16	9.52	20.63	21.40	21.63	22.41	23.77
	4H	6.67	7.40	7.69	8.42	9.79	21.27	21.99	22.28	23.01	24.38
	6H	6.92	7.59	7.95	8.62	10.00	21.68	22.35	22.71	23.38	24.76
	8H	6.99	7.63	8.02	8.67	10.05	21.80	22.43	22.83	23.48	24.85
	12H	7.01	7.61	8.05	8.65	10.05	21.86	22.46	22.90	23.50	24.90
4H	2H	12.86	13.58	13.88	14.60	15.97	19.08	19.81	20.10	20.83	22.20
	3H	14.43	15.03	15.46	16.08	17.46	21.11	21.72	22.14	22.77	24.15
	4H	14.52	15.08	15.56	16.12	17.52	21.87	22.42	22.91	23.47	24.87
	6H	14.53	15.01	15.58	16.08	17.48	22.39	22.87	23.44	23.94	25.34
	8H	14.51	14.96	15.56	16.01	17.43	22.55	23.00	23.60	24.05	25.47
	12H	14.47	14.87	15.53	15.94	17.36	22.63	23.04	23.70	24.11	25.53
8H	4H	15.96	16.40	17.01	17.46	18.88	21.93	22.38	22.98	23.43	24.85
	6H	16.20	16.57	17.27	17.67	19.08	22.54	22.92	23.62	24.02	25.43
	8H	16.22	16.54	17.30	17.62	19.06	22.76	23.08	23.84	24.17	25.60
	12H	16.18	16.47	17.27	17.55	19.02	22.89	23.18	23.98	24.26	25.73
12H	4H	16.10	16.50	17.16	17.57	18.99	21.88	22.29	22.95	23.36	24.78
	6H	16.45	16.78	17.53	17.86	19.29	22.53	22.86	23.61	23.94	25.37
	8H	16.52	16.81	17.61	17.89	19.36	22.75	23.04	23.84	24.12	25.59