

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: P936863

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936863
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

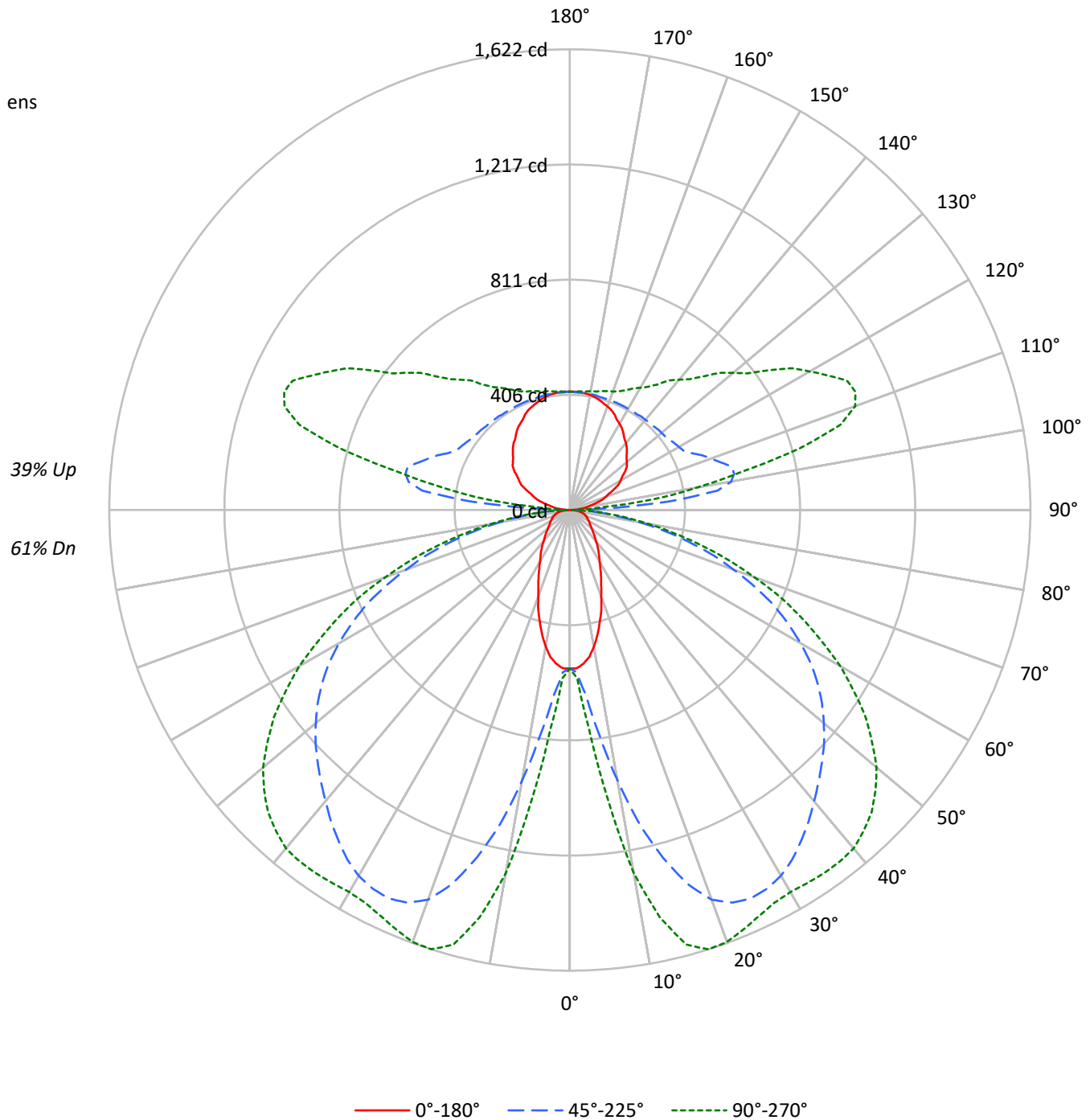
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7020.4 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 67.8
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

TEST NUMBER: P936863
CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-4000K

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3451	3451	3451
5°	3370	3988	4639
10°	3056	5812	7690
15°	2596	7591	9286
20°	2113	8795	9464
25°	1762	9201	9272
30°	1485	9257	9254
35°	1312	9100	9494
40°	1143	8898	9741
45°	1034	8749	9779
50°	948	8615	9617
55°	907	8419	9191
60°	927	8046	8517
65°	964	7480	7593
70°	1024	6519	6414
75°	1130	5310	5005
80°	1227	3678	3374
85°	1067	1947	1727

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9779 cd/sqm



TEST NUMBER: P936863

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	1.0
10°-20°	319.8	4.6
20°-30°	559.4	8.0
30°-40°	720.2	10.3
40°-50°	804.4	11.5
50°-60°	770.4	11.0
60°-70°	610.6	8.7
70°-80°	359.0	5.1
80°-90°	101.3	1.4
90°-100°	203.2	2.9
100°-110°	534.4	7.6
110°-120°	554.1	7.9
120°-130°	444.4	6.3
130°-140°	348.7	5.0
140°-150°	267.7	3.8
150°-160°	192.8	2.7
160°-170°	117.9	1.7
170°-180°	39.8	0.6
0°-30°	951.5	13.6
0°-40°	1671.6	23.8
0°-60°	3246.5	46.2
0°-90°	4317.4	61.5
90°-120°	1291.7	18.4
90°-150°	2352.5	33.5
90°-180°	2703.0	38.5
0°-180°	7020.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	544	583	656	743	770	50
15°	407	752	1266	1536	1584	113
25°	260	852	1509	1575	1577	120
35°	176	814	1421	1502	1561	110
45°	120	649	1256	1439	1503	93
55°	86	413	1066	1238	1272	78
65°	68	219	791	890	902	68
75°	50	134	434	477	479	53
85°	18	41	108	118	120	19
90°	3	8	21	11	11	4
95°	27	105	350	180	123	30
105°	96	146	591	897	837	102
115°	171	208	473	944	1077	169
125°	238	267	430	727	858	211
135°	284	312	417	587	666	219
145°	329	350	412	501	540	206
155°	372	382	412	452	465	171
165°	401	406	412	428	433	113
175°	417	417	414	420	420	40
180°	417	417	417	417	417	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9
2.5°	557.9	557.9	561.5	563.3	566.8	568.6	572.2	575.9	586.5	588.4	592.0
5°	543.5	550.7	574.1	583.0	608.1	642.2	656.5	679.9	728.3	742.7	751.6
7.5°	522.0	538.1	595.6	609.9	672.7	762.4	800.1	850.3	927.4	965.1	995.6
10°	487.9	522.0	624.3	658.3	760.6	896.9	966.9	1036.9	1153.4	1205.5	1225.2
12.5°	450.2	505.9	654.8	701.4	848.5	1047.6	1131.9	1209.0	1341.8	1411.8	1422.6
15°	407.2	482.5	683.5	751.6	941.7	1173.2	1266.5	1361.5	1485.3	1535.5	1548.1
17.5°	369.6	464.6	710.4	782.1	1013.5	1286.2	1381.3	1460.2	1560.7	1594.7	1603.7
20°	322.9	435.9	728.3	821.6	1088.9	1368.7	1460.2	1521.2	1589.4	1610.9	1614.4
22.5°	288.8	405.4	739.1	835.9	1139.1	1418.9	1496.1	1544.5	1591.2	1598.3	1600.1
25°	260.1	371.3	737.3	852.1	1182.1	1449.4	1508.6	1544.5	1571.5	1575.0	1575.0
27.5°	233.2	333.6	730.1	855.6	1214.5	1456.6	1503.2	1528.4	1540.9	1548.1	1548.1
30°	209.9	297.8	712.2	848.5	1228.8	1449.4	1487.1	1499.7	1512.3	1522.9	1528.4
32.5°	192.0	263.7	685.2	834.1	1230.6	1431.5	1458.4	1465.5	1483.5	1508.6	1517.6
35°	175.8	229.6	654.8	814.4	1219.8	1402.8	1420.7	1427.9	1463.7	1501.5	1514.0
37.5°	159.7	204.5	615.3	780.3	1203.7	1368.7	1381.3	1393.9	1449.4	1494.2	1508.6
40°	143.5	182.9	568.6	742.7	1178.5	1327.4	1338.2	1357.9	1431.5	1483.5	1497.9
42.5°	131.0	165.0	518.4	703.2	1146.3	1280.8	1296.9	1325.6	1410.0	1465.5	1481.7
45°	120.2	147.1	464.6	649.4	1105.0	1232.4	1255.7	1295.2	1384.8	1438.7	1453.1
47.5°	109.4	134.5	409.0	593.8	1060.1	1184.0	1214.5	1259.3	1350.8	1402.8	1415.3
50°	100.5	122.0	353.4	534.6	1011.7	1131.9	1167.8	1214.5	1307.7	1356.1	1372.3
52.5°	93.3	111.2	301.3	475.4	956.1	1078.1	1119.3	1167.8	1255.7	1302.3	1313.1
55°	86.1	102.3	256.5	412.6	898.7	1020.7	1065.6	1112.2	1198.3	1237.7	1245.0
57.5°	82.6	95.0	218.9	353.4	837.7	956.1	1006.4	1049.4	1130.1	1160.6	1167.8
60°	77.1	89.7	190.2	303.1	771.4	895.1	938.2	981.2	1049.4	1074.5	1079.9
62.5°	71.8	86.1	168.6	254.7	703.2	823.3	866.4	905.9	963.3	981.2	988.4
65°	68.2	82.6	152.5	218.9	633.3	748.0	791.1	825.1	871.9	889.8	893.3
67.5°	64.5	78.9	139.9	188.4	563.3	672.7	704.9	737.3	773.2	791.1	792.9
70°	59.2	75.3	129.2	166.8	491.5	586.5	613.5	647.6	676.2	685.2	690.6
72.5°	55.6	70.0	122.0	150.7	418.0	504.1	529.2	548.9	574.1	583.0	583.0
75°	50.2	62.8	114.8	134.5	342.6	412.6	434.1	453.8	473.6	477.2	471.8
77.5°	44.8	55.6	98.7	113.1	267.3	326.5	344.4	355.2	371.3	374.9	376.7
80°	37.7	48.4	77.1	87.9	193.7	240.4	252.9	261.9	276.3	276.3	279.9
82.5°	28.7	37.7	55.6	62.8	131.0	165.0	175.8	181.2	190.2	190.2	190.2
85°	17.9	23.4	35.8	41.3	78.9	100.5	107.6	109.4	116.6	118.4	118.4
87.5°	9.0	12.6	23.4	25.1	41.3	52.0	52.0	55.6	55.6	53.9	52.0
90°	2.8	5.1	7.3	7.9	12.3	18.3	21.3	18.9	14.1	10.6	10.6
92.5°	11.2	30.2	49.2	54.0	75.9	105.2	119.8	104.9	75.3	53.1	51.1
95°	26.9	61.6	96.5	105.2	186.8	295.7	350.1	312.5	237.1	180.5	174.1
97.5°	46.4	77.2	107.9	115.6	251.7	433.2	523.9	500.1	452.4	416.6	404.4
100°	61.6	89.4	117.3	124.3	275.3	476.7	577.3	579.0	582.6	585.2	570.7
102.5°	74.4	100.5	126.5	133.0	286.1	490.3	592.4	622.8	683.5	729.0	716.6
105°	96.3	118.3	140.3	145.8	294.1	491.9	590.7	658.8	794.8	896.9	890.2
107.5°	118.7	139.2	159.7	164.8	295.6	470.0	557.1	652.0	841.8	984.2	985.8
110°	133.8	152.2	170.8	175.4	293.4	450.6	529.2	635.2	847.5	1006.6	1013.6



TEST NUMBER: P936863

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	148.6	166.3	183.9	188.4	293.5	433.7	503.7	612.3	829.5	992.3	1003.0
115°	171.0	187.3	203.6	207.6	296.2	414.2	473.2	577.9	787.0	943.9	958.7
117.5°	193.1	207.9	222.7	226.4	301.7	402.1	452.2	546.6	735.4	877.0	893.5
120°	205.9	219.9	233.8	237.3	306.1	397.9	443.8	530.1	702.6	831.9	848.0
122.5°	218.6	232.6	246.7	250.2	312.6	395.7	437.4	515.0	670.5	786.9	802.7
125°	237.9	250.6	263.5	266.7	321.2	394.0	430.4	496.4	628.4	727.3	741.8
127.5°	253.5	266.5	279.4	282.7	329.9	393.0	424.5	481.2	594.4	679.4	691.6
130°	262.0	275.9	289.8	293.3	336.3	393.6	422.3	472.7	573.6	649.3	660.6
132.5°	270.6	284.6	298.5	302.0	341.4	394.0	420.4	465.5	555.8	623.5	633.6
135°	283.5	296.2	308.8	312.0	347.0	393.7	417.0	454.8	530.4	587.1	595.9
137.5°	296.6	309.2	321.7	324.9	355.4	396.0	416.4	448.3	512.2	560.2	567.4
140°	307.6	319.2	330.7	333.6	360.5	396.5	414.5	442.1	497.3	538.7	545.4
142.5°	315.9	326.6	337.3	340.0	364.8	397.9	414.5	438.7	487.2	523.5	529.3
145°	328.8	338.2	347.5	349.8	370.5	397.9	411.7	431.5	471.1	500.9	505.3
147.5°	341.7	350.7	359.9	362.2	378.6	400.6	411.7	427.2	458.5	481.9	485.5
150°	350.1	358.4	366.5	368.6	383.0	402.1	411.7	424.9	451.2	471.0	473.9
152.5°	358.7	365.0	371.2	372.7	385.7	403.0	411.7	422.9	445.4	462.3	464.4
155°	371.7	376.3	380.8	382.0	391.8	405.1	411.7	420.6	438.6	451.9	453.4
157.5°	381.2	385.6	390.1	391.2	398.0	407.1	411.7	418.6	432.6	443.0	444.0
160°	387.6	391.0	394.5	395.4	400.8	408.0	411.7	417.6	429.6	438.6	439.1
162.5°	394.0	396.6	399.3	399.9	403.8	409.0	411.7	416.7	426.8	434.3	434.8
165°	401.0	403.3	405.7	406.3	408.1	410.5	411.7	415.3	422.4	427.9	428.5
167.5°	407.4	408.5	409.7	409.9	411.5	413.5	414.5	416.8	421.5	425.1	425.3
170°	411.7	412.8	413.9	414.2	414.3	414.4	414.5	416.8	421.5	425.1	425.1
172.5°	413.9	414.2	414.4	414.5	414.5	414.5	414.5	416.3	420.0	422.8	422.6
175°	417.0	417.0	417.0	417.0	416.2	415.0	414.5	415.6	418.0	419.7	419.7
177.5°	417.0	417.0	417.0	417.0	416.4	415.5	415.0	415.9	417.8	419.2	418.9
180°	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0



TEST NUMBER: P936863

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	557.9	557.9
2.5°	595.6	592.0
5°	765.9	769.6
7.5°	1031.4	1029.7
10°	1282.6	1298.7
12.5°	1465.5	1469.2
15°	1576.8	1583.9
17.5°	1619.9	1621.6
20°	1621.6	1618.1
22.5°	1601.9	1598.3
25°	1578.6	1576.8
27.5°	1557.1	1558.9
30°	1548.1	1553.4
32.5°	1548.1	1557.1
35°	1551.7	1560.7
37.5°	1549.9	1560.7
40°	1542.7	1555.2
42.5°	1522.9	1532.0
45°	1492.5	1503.2
47.5°	1453.1	1460.2
50°	1402.8	1410.0
52.5°	1340.0	1341.8
55°	1264.7	1271.8
57.5°	1184.0	1185.8
60°	1094.2	1099.6
62.5°	999.2	999.2
65°	898.7	902.3
67.5°	794.6	803.6
70°	688.8	690.6
72.5°	584.8	584.8
75°	477.2	478.9
77.5°	374.9	374.9
80°	278.1	279.9
82.5°	192.0	195.5
85°	120.2	120.2
87.5°	55.6	50.2
90°	10.6	10.6
92.5°	42.5	34.1
95°	148.4	122.8
97.5°	355.7	307.0
100°	512.6	454.5
102.5°	666.8	617.0
105°	863.5	836.7
107.5°	992.2	998.8
110°	1041.4	1069.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1045.8	1088.5
115°	1018.0	1077.4
117.5°	959.3	1025.1
120°	911.9	975.9
122.5°	865.8	928.8
125°	799.9	858.0
127.5°	740.7	789.8
130°	705.8	751.1
132.5°	674.2	714.7
135°	630.8	665.7
137.5°	596.0	624.7
140°	572.1	598.9
142.5°	552.3	575.3
145°	522.7	540.1
147.5°	499.9	514.3
150°	485.6	497.3
152.5°	473.3	482.2
155°	459.3	465.1
157.5°	448.1	452.2
160°	441.4	443.8
162.5°	437.1	439.4
165°	430.9	433.2
167.5°	426.3	427.3
170°	425.1	425.1
172.5°	421.7	420.9
175°	419.7	419.7
177.5°	418.0	417.0
180°	417.0	417.0



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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	6.29	7.31	7.13	8.19	9.28	19.45	20.48	20.30	21.35	22.44
	3H	7.01	7.93	7.86	8.81	9.93	21.30	22.22	22.15	23.10	24.22
	4H	7.31	8.19	8.18	9.07	10.20	21.95	22.82	22.82	23.71	24.84
	6H	7.57	8.38	8.45	9.27	10.42	22.38	23.19	23.27	24.08	25.23
	8H	7.64	8.41	8.54	9.33	10.47	22.51	23.28	23.40	24.19	25.33
	12H	7.67	8.40	8.57	9.31	10.48	22.58	23.31	23.48	24.22	25.39
4H	2H	13.51	14.39	14.39	15.28	16.41	19.75	20.62	20.62	21.51	22.64
	3H	15.10	15.83	15.99	16.75	17.90	21.80	22.54	22.69	23.45	24.60
	4H	15.20	15.87	16.10	16.78	17.96	22.57	23.24	23.47	24.16	25.33
	6H	15.22	15.80	16.13	16.74	17.91	23.12	23.70	24.03	24.64	25.81
	8H	15.20	15.74	16.12	16.68	17.86	23.28	23.82	24.20	24.76	25.95
	12H	15.17	15.66	16.10	16.61	17.80	23.38	23.87	24.32	24.82	26.02
8H	4H	16.66	17.20	17.57	18.13	19.32	22.65	23.19	23.57	24.12	25.31
	6H	16.90	17.36	17.85	18.33	19.52	23.28	23.73	24.23	24.71	25.89
	8H	16.93	17.32	17.88	18.29	19.49	23.50	23.90	24.45	24.86	26.07
	12H	16.90	17.25	17.86	18.21	19.46	23.65	24.00	24.61	24.96	26.21
12H	4H	16.81	17.30	17.74	18.25	19.44	22.61	23.10	23.55	24.05	25.24
	6H	17.16	17.56	18.12	18.53	19.73	23.27	23.67	24.22	24.63	25.83
	8H	17.24	17.59	18.20	18.55	19.80	23.50	23.85	24.46	24.81	26.06