

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: P936862

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936862
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-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

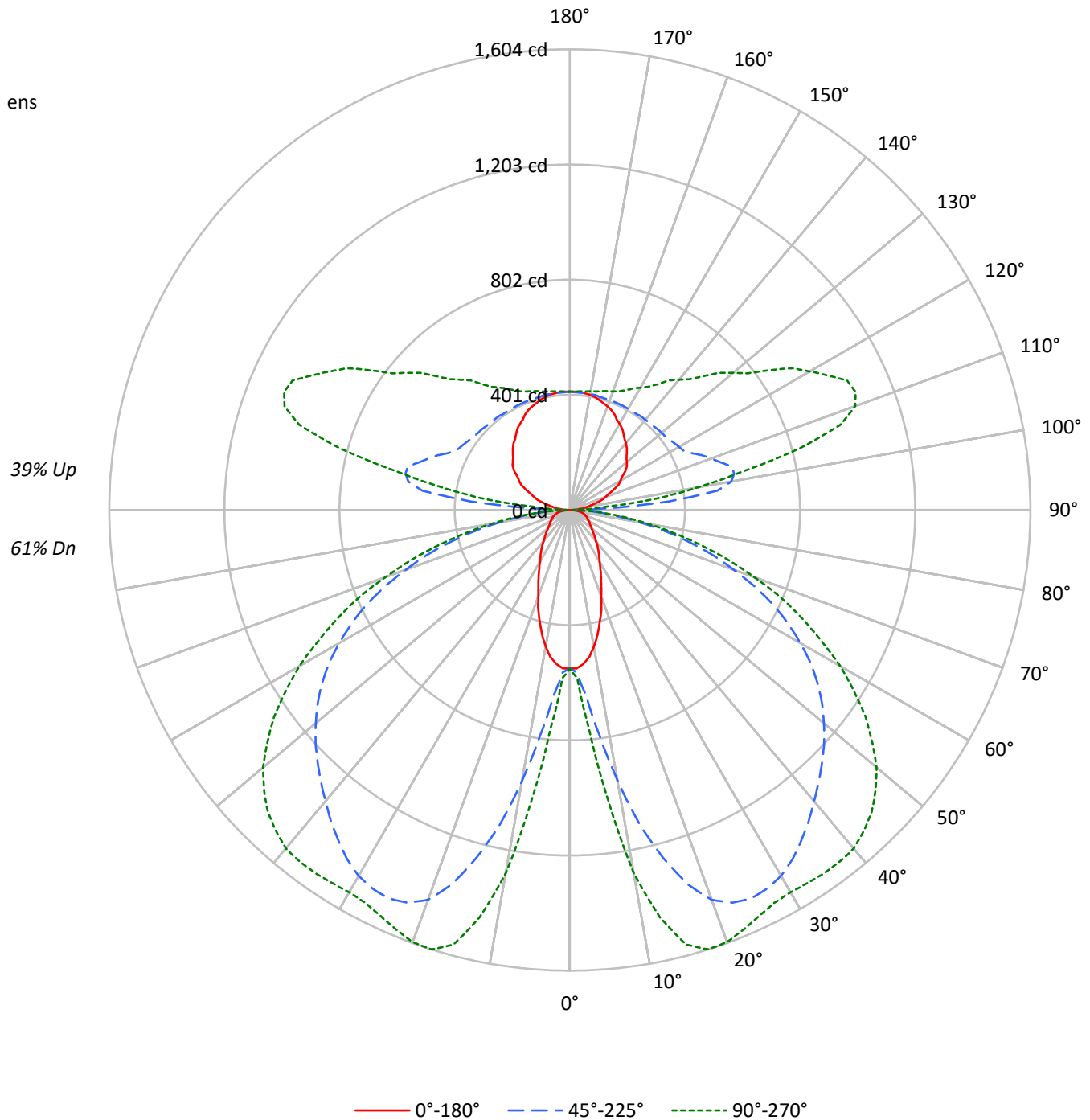
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6944.1 lumens
Efficiency: N/A
Efficacy: 102.4 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 (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	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°	3414	3414	3414
5°	3334	3944	4588
10°	3023	5749	7607
15°	2568	7508	9185
20°	2090	8699	9361
25°	1743	9101	9171
30°	1469	9156	9153
35°	1298	9002	9391
40°	1130	8801	9635
45°	1023	8654	9672
50°	938	8521	9512
55°	896	8328	9091
60°	918	7958	8425
65°	953	7398	7510
70°	1013	6447	6344
75°	1118	5253	4951
80°	1211	3639	3336
85°	1055	1928	1708

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9672 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	1.0
10°-20°	316.4	4.6
20°-30°	553.4	8.0
30°-40°	712.3	10.3
40°-50°	795.7	11.5
50°-60°	762.1	11.0
60°-70°	603.9	8.7
70°-80°	355.1	5.1
80°-90°	100.2	1.4
90°-100°	201.0	2.9
100°-110°	528.5	7.6
110°-120°	548.0	7.9
120°-130°	439.6	6.3
130°-140°	344.9	5.0
140°-150°	264.7	3.8
150°-160°	190.7	2.7
160°-170°	116.7	1.7
170°-180°	39.4	0.6
0°-30°	941.1	13.6
0°-40°	1653.4	23.8
0°-60°	3211.1	46.2
0°-90°	4270.4	61.5
90°-120°	1277.6	18.4
90°-150°	2326.9	33.5
90°-180°	2674.0	38.5
0°-180°	6944.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	538	577	649	735	761	50
15°	403	744	1253	1519	1567	112
25°	257	843	1492	1558	1560	119
35°	174	806	1405	1485	1544	109
45°	119	642	1242	1423	1487	92
55°	85	408	1054	1224	1258	78
65°	67	216	782	880	892	67
75°	50	133	429	472	474	52
85°	18	41	106	117	119	19
90°	3	8	21	10	10	4
95°	27	104	346	178	122	30
105°	95	144	584	887	828	101
115°	169	205	468	934	1066	167
125°	235	264	426	719	849	209
135°	280	309	412	581	658	217
145°	325	346	407	496	534	204
155°	368	378	407	447	460	169
165°	397	402	407	423	428	112
175°	412	412	410	415	415	39
180°	412	412	412	412	412	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8	551.8
2.5°	551.8	551.8	555.4	557.2	560.6	562.4	566.0	569.6	580.2	582.0	585.5
5°	537.6	544.7	567.8	576.7	601.5	635.2	649.4	672.5	720.4	734.6	743.5
7.5°	516.3	532.3	589.1	603.3	665.4	754.1	791.4	841.1	917.3	954.6	984.8
10°	482.6	516.3	617.5	651.2	752.3	887.2	956.4	1025.6	1140.9	1192.4	1211.9
12.5°	445.3	500.4	647.7	693.8	839.3	1036.2	1119.6	1195.9	1327.2	1396.4	1407.1
15°	402.8	477.3	676.1	743.5	931.5	1160.4	1252.7	1346.7	1469.1	1518.8	1531.3
17.5°	365.6	459.6	702.6	773.6	1002.5	1272.2	1366.2	1444.3	1543.7	1577.4	1586.2
20°	319.4	431.2	720.4	812.7	1077.1	1353.8	1444.3	1504.7	1572.1	1593.4	1596.9
22.5°	285.7	401.0	731.0	826.8	1126.7	1403.5	1479.8	1527.7	1573.9	1580.9	1582.7
25°	257.3	367.3	729.2	842.8	1169.3	1433.7	1492.2	1527.7	1554.4	1557.8	1557.8
27.5°	230.6	330.0	722.2	846.3	1201.2	1440.7	1486.8	1511.7	1524.2	1531.3	1531.3
30°	207.6	294.6	704.4	839.3	1215.4	1433.7	1470.9	1483.4	1495.8	1506.4	1511.7
32.5°	189.9	260.8	677.8	825.0	1217.2	1415.9	1442.5	1449.6	1467.3	1492.2	1501.1
35°	173.9	227.1	647.7	805.5	1206.5	1387.6	1405.3	1412.4	1447.8	1485.1	1497.5
37.5°	157.9	202.3	608.6	771.8	1190.6	1353.8	1366.2	1378.7	1433.7	1478.0	1492.2
40°	141.9	180.9	562.4	734.6	1165.7	1313.0	1323.6	1343.1	1415.9	1467.3	1481.6
42.5°	129.6	163.2	512.7	695.6	1133.8	1266.9	1282.8	1311.2	1394.6	1449.6	1465.6
45°	118.9	145.5	459.6	642.3	1093.0	1219.0	1242.1	1281.1	1369.7	1423.0	1437.2
47.5°	108.2	133.0	404.6	587.3	1048.6	1171.1	1201.2	1245.6	1336.1	1387.6	1399.9
50°	99.4	120.7	349.5	528.8	1000.7	1119.6	1155.1	1201.2	1293.5	1341.4	1357.4
52.5°	92.3	110.0	298.0	470.2	945.7	1066.4	1107.1	1155.1	1242.1	1288.2	1298.8
55°	85.1	101.2	253.7	408.1	889.0	1009.6	1054.0	1100.1	1185.2	1224.2	1231.4
57.5°	81.7	94.0	216.5	349.5	828.6	945.7	995.4	1038.0	1117.8	1148.0	1155.1
60°	76.3	88.7	188.1	299.8	763.0	885.4	928.0	970.5	1038.0	1062.8	1068.1
62.5°	71.0	85.1	166.8	251.9	695.6	814.4	857.0	896.0	952.8	970.5	977.7
65°	67.4	81.7	150.9	216.5	626.4	739.9	782.5	816.2	862.4	880.1	883.6
67.5°	63.8	78.1	138.4	186.3	557.2	665.4	697.3	729.2	764.8	782.5	784.3
70°	58.6	74.5	127.8	165.0	486.2	580.2	606.8	640.5	668.9	677.8	683.1
72.5°	55.0	69.2	120.7	149.1	413.5	498.6	523.4	542.9	567.8	576.7	576.7
75°	49.7	62.1	113.5	133.0	338.9	408.1	429.4	448.9	468.4	472.0	466.6
77.5°	44.3	55.0	97.6	111.8	264.4	322.9	340.7	351.3	367.3	370.8	372.6
80°	37.2	47.9	76.3	86.9	191.6	237.8	250.2	259.0	273.2	273.2	276.8
82.5°	28.4	37.2	55.0	62.1	129.6	163.2	173.9	179.2	188.1	188.1	188.1
85°	17.7	23.1	35.5	40.8	78.1	99.4	106.5	108.2	115.3	117.1	117.1
87.5°	8.9	12.4	23.1	24.8	40.8	51.5	51.5	55.0	55.0	53.3	51.5
90°	2.8	5.0	7.3	7.8	12.2	18.1	21.0	18.7	14.0	10.5	10.5
92.5°	11.1	29.9	48.7	53.5	75.1	104.0	118.4	103.8	74.5	52.6	50.5
95°	26.6	61.0	95.4	104.0	184.8	292.5	346.3	309.1	234.5	178.5	172.2
97.5°	45.9	76.4	106.7	114.3	249.0	428.5	518.2	494.7	447.5	412.1	400.0
100°	60.9	88.5	116.0	122.9	272.3	471.5	571.0	572.7	576.2	578.8	564.5
102.5°	73.6	99.4	125.1	131.5	283.0	485.0	586.0	616.0	676.1	721.1	708.8
105°	95.3	117.0	138.8	144.2	290.9	486.5	584.3	651.6	786.2	887.2	880.5
107.5°	117.4	137.7	157.9	163.0	292.4	464.8	551.1	644.9	832.6	973.5	975.1
110°	132.3	150.6	168.9	173.5	290.2	445.7	523.4	628.3	838.3	995.7	1002.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	147.0	164.5	181.9	186.3	290.3	428.9	498.2	605.7	820.5	981.5	992.1
115°	169.1	185.2	201.4	205.4	292.9	409.7	468.1	571.6	778.5	933.6	948.3
117.5°	191.0	205.7	220.2	223.9	298.4	397.7	447.3	540.7	727.4	867.5	883.8
120°	203.7	217.5	231.3	234.8	302.8	393.6	439.0	524.3	694.9	822.9	838.7
122.5°	216.2	230.1	244.0	247.5	309.2	391.4	432.6	509.4	663.2	778.4	794.0
125°	235.3	247.9	260.6	263.8	317.7	389.7	425.7	491.0	621.5	719.4	733.7
127.5°	250.8	263.6	276.4	279.6	326.3	388.7	419.9	475.9	588.0	672.0	684.1
130°	259.1	272.9	286.7	290.1	332.6	389.3	417.7	467.5	567.4	642.2	653.4
132.5°	267.7	281.5	295.3	298.7	337.7	389.7	415.8	460.5	549.7	616.7	626.7
135°	280.4	292.9	305.5	308.6	343.3	389.4	412.5	449.9	524.7	580.7	589.4
137.5°	293.4	305.8	318.2	321.3	351.5	391.7	411.8	443.4	506.7	554.1	561.2
140°	304.2	315.7	327.1	329.9	356.6	392.1	410.0	437.3	491.9	532.8	539.4
142.5°	312.5	323.0	333.6	336.3	360.8	393.6	410.0	434.0	481.9	517.8	523.6
145°	325.3	334.5	343.7	346.0	366.5	393.6	407.2	426.8	466.0	495.5	499.8
147.5°	338.0	346.9	356.0	358.2	374.5	396.3	407.2	422.6	453.5	476.7	480.2
150°	346.3	354.5	362.5	364.6	378.8	397.7	407.2	420.3	446.3	465.8	468.7
152.5°	354.8	361.0	367.2	368.7	381.5	398.6	407.2	418.3	440.6	457.2	459.4
155°	367.6	372.2	376.7	377.8	387.6	400.7	407.2	416.1	433.8	447.0	448.5
157.5°	377.0	381.4	385.9	387.0	393.7	402.7	407.2	414.1	427.9	438.2	439.2
160°	383.4	386.8	390.2	391.1	396.4	403.6	407.2	413.1	424.9	433.8	434.3
162.5°	389.7	392.3	394.9	395.5	399.4	404.6	407.2	412.2	422.1	429.6	430.1
165°	396.6	399.0	401.3	401.9	403.7	406.0	407.2	410.8	417.8	423.2	423.8
167.5°	403.0	404.1	405.2	405.5	407.0	409.0	410.0	412.3	416.9	420.4	420.7
170°	407.2	408.3	409.4	409.7	409.8	409.9	410.0	412.3	416.9	420.4	420.4
172.5°	409.4	409.7	409.9	410.0	410.0	410.0	410.0	411.8	415.4	418.2	418.0
175°	412.5	412.5	412.5	412.5	411.7	410.5	410.0	411.1	413.5	415.2	415.2
177.5°	412.5	412.5	412.5	412.5	411.8	410.9	410.5	411.4	413.3	414.6	414.4
180°	412.5	412.5	412.5	412.5	412.5	412.5	412.5	412.5	412.5	412.5	412.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	551.8	551.8
2.5°	589.1	585.5
5°	757.6	761.2
7.5°	1020.2	1018.5
10°	1268.7	1284.6
12.5°	1449.6	1453.2
15°	1559.6	1566.7
17.5°	1602.3	1604.0
20°	1604.0	1600.5
22.5°	1584.4	1580.9
25°	1561.4	1559.6
27.5°	1540.1	1541.9
30°	1531.3	1536.5
32.5°	1531.3	1540.1
35°	1534.8	1543.7
37.5°	1533.0	1543.7
40°	1525.9	1538.3
42.5°	1506.4	1515.3
45°	1476.3	1486.8
47.5°	1437.2	1444.3
50°	1387.6	1394.6
52.5°	1325.4	1327.2
55°	1250.9	1258.0
57.5°	1171.1	1172.9
60°	1082.3	1087.6
62.5°	988.3	988.3
65°	889.0	892.4
67.5°	786.0	794.9
70°	681.3	683.1
72.5°	578.5	578.5
75°	472.0	473.7
77.5°	370.8	370.8
80°	275.0	276.8
82.5°	189.9	193.4
85°	118.9	118.9
87.5°	55.0	49.7
90°	10.5	10.5
92.5°	42.1	33.8
95°	146.8	121.5
97.5°	351.9	303.7
100°	507.0	449.5
102.5°	659.6	610.3
105°	854.1	827.6
107.5°	981.4	987.9
110°	1030.1	1057.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1034.4	1076.7
115°	1007.0	1065.7
117.5°	948.9	1013.9
120°	901.9	965.2
122.5°	856.4	918.7
125°	791.2	848.7
127.5°	732.6	781.2
130°	698.2	742.9
132.5°	666.8	706.9
135°	623.9	658.5
137.5°	589.6	617.9
140°	565.8	592.3
142.5°	546.3	569.1
145°	517.0	534.2
147.5°	494.5	508.7
150°	480.3	491.9
152.5°	468.2	476.9
155°	454.3	460.0
157.5°	443.3	447.3
160°	436.6	439.0
162.5°	432.3	434.6
165°	426.2	428.5
167.5°	421.7	422.7
170°	420.4	420.4
172.5°	417.1	416.3
175°	415.2	415.2
177.5°	413.5	412.5
180°	412.5	412.5



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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	6.25	7.28	7.09	8.15	9.24	19.41	20.44	20.26	21.31	22.40
	3H	6.97	7.89	7.82	8.77	9.89	21.26	22.18	22.12	23.07	24.18
	4H	7.27	8.15	8.15	9.04	10.16	21.91	22.78	22.78	23.67	24.80
	6H	7.53	8.34	8.42	9.23	10.38	22.35	23.15	23.23	24.05	25.19
	8H	7.61	8.38	8.50	9.29	10.43	22.47	23.24	23.36	24.15	25.29
	12H	7.63	8.36	8.53	9.27	10.44	22.54	23.27	23.44	24.18	25.35
4H	2H	13.48	14.35	14.35	15.24	16.37	19.71	20.58	20.59	21.47	22.60
	3H	15.06	15.79	15.95	16.71	17.86	21.76	22.50	22.65	23.42	24.56
	4H	15.16	15.83	16.06	16.75	17.92	22.54	23.20	23.44	24.12	25.29
	6H	15.18	15.76	16.10	16.70	17.87	23.08	23.66	23.99	24.60	25.77
	8H	15.16	15.71	16.08	16.64	17.83	23.24	23.79	24.16	24.72	25.91
	12H	15.13	15.62	16.07	16.57	17.76	23.34	23.83	24.28	24.78	25.98
8H	4H	16.62	17.16	17.53	18.09	19.28	22.61	23.15	23.53	24.09	25.27
	6H	16.87	17.32	17.81	18.29	19.48	23.24	23.69	24.19	24.67	25.85
	8H	16.89	17.29	17.84	18.25	19.46	23.46	23.86	24.42	24.83	26.03
	12H	16.86	17.22	17.82	18.17	19.43	23.61	23.96	24.57	24.92	26.17
12H	4H	16.77	17.26	17.71	18.21	19.40	22.57	23.06	23.51	24.01	25.21
	6H	17.13	17.53	18.08	18.49	19.70	23.23	23.63	24.18	24.59	25.80
	8H	17.20	17.56	18.16	18.51	19.77	23.46	23.82	24.42	24.77	26.03