

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: P936875

Luminaire Tested: SQ4-FB-050U-100D-940-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

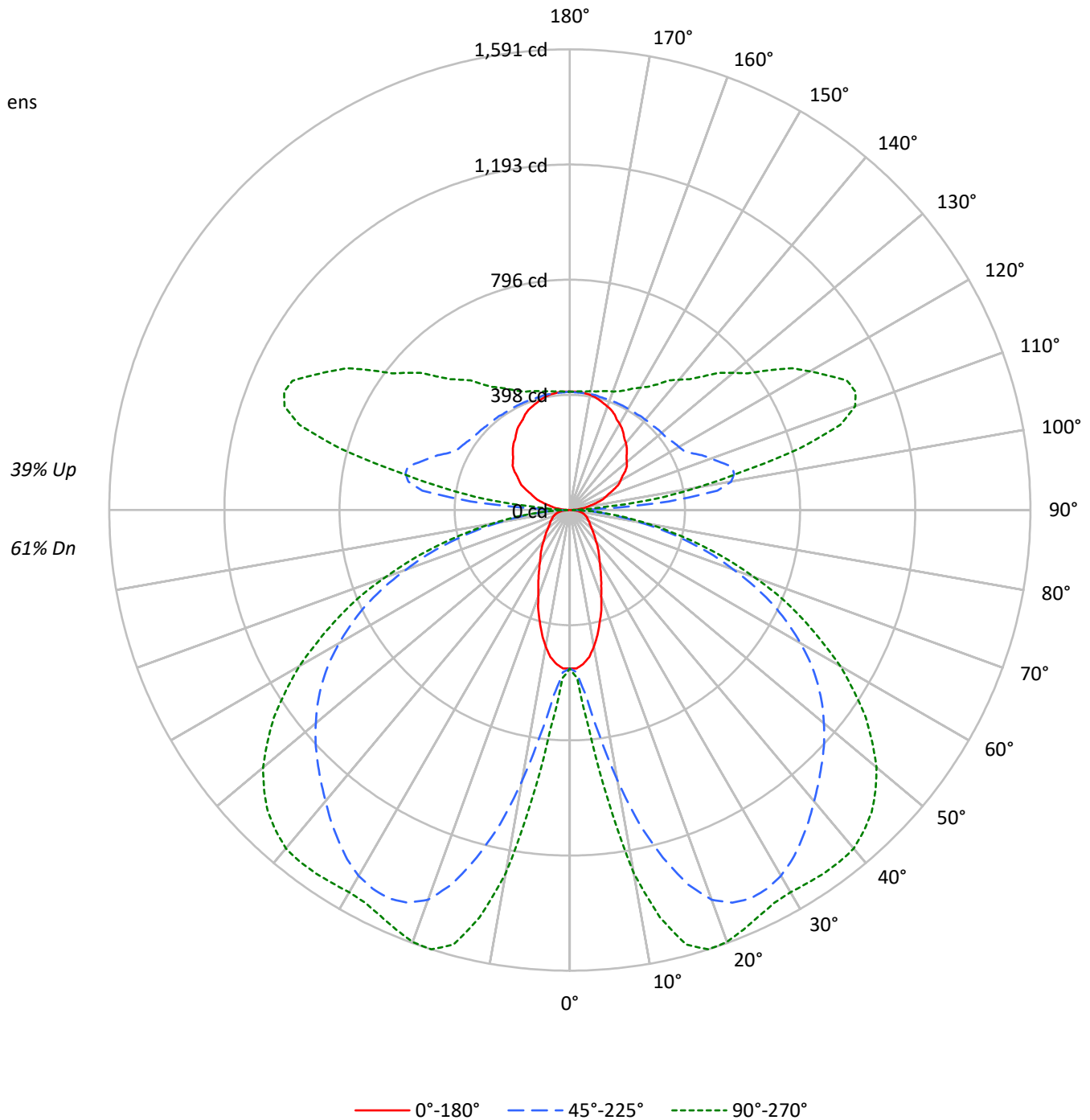
Test Method: LM-79-2019  
Report Number: P936875  
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-940-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6887.3 lumens  
Efficiency: N/A  
Efficacy: 101.6 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

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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	50	30	10	0
RCR																					
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3386	3386	3386
5°	3306	3912	4551
10°	2998	5702	7545
15°	2547	7447	9110
20°	2072	8628	9285
25°	1728	9026	9096
30°	1457	9081	9079
35°	1287	8928	9314
40°	1121	8729	9556
45°	1015	8583	9593
50°	930	8452	9435
55°	889	8260	9016
60°	910	7893	8356
65°	945	7338	7449
70°	1005	6395	6292
75°	1109	5210	4910
80°	1201	3608	3310
85°	1049	1911	1694

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9593 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.8	1.0
10°-20°	313.8	4.6
20°-30°	548.8	8.0
30°-40°	706.5	10.3
40°-50°	789.2	11.5
50°-60°	755.8	11.0
60°-70°	599.0	8.7
70°-80°	352.2	5.1
80°-90°	99.4	1.4
90°-100°	199.4	2.9
100°-110°	524.2	7.6
110°-120°	543.6	7.9
120°-130°	436.0	6.3
130°-140°	342.1	5.0
140°-150°	262.6	3.8
150°-160°	189.1	2.7
160°-170°	115.7	1.7
170°-180°	39.1	0.6
0°-30°	933.4	13.6
0°-40°	1639.9	23.8
0°-60°	3184.9	46.2
0°-90°	4235.6	61.5
90°-120°	1267.2	18.4
90°-150°	2307.9	33.5
90°-180°	2652.0	38.5
0°-180°	6887.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	533	572	644	729	755	49
15°	400	737	1242	1506	1554	111
25°	255	836	1480	1545	1547	118
35°	172	799	1394	1473	1531	108
45°	118	637	1232	1411	1475	91
55°	84	405	1045	1214	1248	77
65°	67	215	776	873	885	66
75°	49	132	426	468	470	52
85°	18	40	106	116	118	19
90°	3	8	21	10	10	3
95°	26	103	344	177	120	29
105°	94	143	580	880	821	100
115°	168	204	464	926	1057	166
125°	233	262	422	714	842	207
135°	278	306	409	576	653	215
145°	323	343	404	491	530	202
155°	365	375	404	443	456	168
165°	393	399	404	420	425	111
175°	409	409	407	412	412	39
180°	409	409	409	409	409	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3	547.3
2.5°	547.3	547.3	550.8	552.6	556.1	557.8	561.4	564.9	575.4	577.2	580.8
5°	533.2	540.3	563.2	572.0	596.6	630.0	644.1	667.0	714.5	728.6	737.4
7.5°	512.1	527.9	584.3	598.3	660.0	748.0	784.9	834.2	909.8	946.8	976.7
10°	478.6	512.1	612.5	645.8	746.2	879.9	948.6	1017.2	1131.6	1182.6	1202.0
12.5°	441.7	496.3	642.4	688.1	832.4	1027.8	1110.4	1186.1	1316.4	1385.0	1395.6
15°	399.5	473.4	670.5	737.4	923.9	1150.9	1242.5	1335.7	1457.1	1506.4	1518.7
17.5°	362.6	455.8	696.9	767.3	994.3	1261.8	1355.1	1432.5	1531.1	1564.5	1573.3
20°	316.7	427.7	714.5	806.0	1068.3	1342.7	1432.5	1492.4	1559.2	1580.4	1583.8
22.5°	283.4	397.7	725.1	820.1	1117.5	1392.0	1467.7	1515.2	1561.0	1568.0	1569.8
25°	255.2	364.3	723.3	836.0	1159.7	1422.0	1480.0	1515.2	1541.7	1545.1	1545.1
27.5°	228.7	327.3	716.3	839.4	1191.4	1429.0	1474.7	1499.4	1511.7	1518.7	1518.7
30°	205.9	292.2	698.7	832.4	1205.5	1422.0	1458.9	1471.2	1483.6	1494.1	1499.4
32.5°	188.3	258.7	672.2	818.3	1207.2	1404.4	1430.7	1437.8	1455.3	1480.0	1488.8
35°	172.4	225.3	642.4	798.9	1196.7	1376.2	1393.8	1400.8	1436.0	1473.0	1485.3
37.5°	156.6	200.6	603.7	765.5	1180.9	1342.7	1355.1	1367.4	1422.0	1465.9	1480.0
40°	140.7	179.5	557.8	728.6	1156.2	1302.3	1312.8	1332.2	1404.4	1455.3	1469.5
42.5°	128.5	161.9	508.6	689.9	1124.6	1256.5	1272.3	1300.5	1383.2	1437.8	1453.7
45°	117.9	144.3	455.8	637.1	1084.1	1209.0	1231.9	1270.6	1358.6	1411.4	1425.5
47.5°	107.4	132.0	401.3	582.5	1040.0	1161.5	1191.4	1235.4	1325.2	1376.2	1388.5
50°	98.6	119.7	346.7	524.5	992.5	1110.4	1145.7	1191.4	1282.9	1330.4	1346.3
52.5°	91.6	109.1	295.6	466.4	938.0	1057.7	1098.1	1145.7	1231.9	1277.7	1288.2
55°	84.4	100.3	251.7	404.8	881.7	1001.3	1045.4	1091.1	1175.5	1214.3	1221.4
57.5°	81.0	93.2	214.7	346.7	821.8	938.0	987.3	1029.5	1108.7	1138.6	1145.7
60°	75.7	88.0	186.6	297.4	756.8	878.1	920.4	962.6	1029.5	1054.1	1059.4
62.5°	70.4	84.4	165.4	249.9	689.9	807.7	850.0	888.7	945.0	962.6	969.7
65°	66.9	81.0	149.6	214.7	621.2	733.8	776.1	809.5	855.3	872.9	876.4
67.5°	63.3	77.4	137.3	184.8	552.6	660.0	691.6	723.3	758.5	776.1	777.9
70°	58.1	73.9	126.7	163.7	482.2	575.4	601.9	635.3	663.4	672.2	677.5
72.5°	54.5	68.6	119.7	147.9	410.1	494.5	519.1	538.5	563.2	572.0	572.0
75°	49.3	61.6	112.6	132.0	336.1	404.8	425.9	445.2	464.6	468.2	462.8
77.5°	44.0	54.5	96.8	110.9	262.2	320.3	337.9	348.5	364.3	367.8	369.6
80°	36.9	47.5	75.7	86.2	190.0	235.9	248.1	256.9	271.0	271.0	274.6
82.5°	28.1	36.9	54.5	61.6	128.5	161.9	172.4	177.8	186.6	186.6	186.6
85°	17.6	22.9	35.2	40.5	77.4	98.6	105.6	107.4	114.4	116.2	116.2
87.5°	8.8	12.3	22.9	24.6	40.5	51.1	51.1	54.5	54.5	52.8	51.1
90°	2.8	5.0	7.2	7.7	12.1	17.9	20.9	18.6	13.9	10.4	10.4
92.5°	11.0	29.7	48.3	53.0	74.5	103.2	117.5	102.9	73.9	52.1	50.1
95°	26.4	60.5	94.7	103.2	183.3	290.1	343.5	306.5	232.6	177.1	170.8
97.5°	45.6	75.7	105.8	113.4	247.0	425.0	514.0	490.6	443.8	408.7	396.8
100°	60.4	87.7	115.1	121.9	270.0	467.6	566.4	568.1	571.5	574.1	559.9
102.5°	73.0	98.6	124.1	130.4	280.7	481.0	581.2	610.9	670.5	715.2	703.0
105°	94.5	116.1	137.6	143.1	288.5	482.5	579.5	646.3	779.8	879.9	873.3
107.5°	116.4	136.6	156.6	161.7	290.0	461.0	546.6	639.6	825.8	965.5	967.1
110°	131.2	149.4	167.6	172.1	287.8	442.0	519.1	623.2	831.4	987.5	994.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	145.8	163.1	180.4	184.8	287.9	425.4	494.2	600.7	813.8	973.5	984.0
115°	167.7	183.7	199.7	203.7	290.6	406.3	464.2	566.9	772.1	926.0	940.6
117.5°	189.4	204.0	218.4	222.1	296.0	394.4	443.6	536.3	721.5	860.4	876.5
120°	202.0	215.7	229.4	232.8	300.3	390.4	435.4	520.0	689.3	816.2	831.9
122.5°	214.5	228.2	242.0	245.4	306.6	388.2	429.1	505.3	657.7	772.0	787.5
125°	233.4	245.9	258.5	261.6	315.2	386.5	422.2	487.0	616.4	713.5	727.7
127.5°	248.7	261.4	274.1	277.3	323.7	385.6	416.5	472.1	583.1	666.5	678.5
130°	257.0	270.7	284.3	287.7	329.9	386.1	414.3	463.7	562.7	637.0	648.1
132.5°	265.5	279.2	292.9	296.2	335.0	386.5	412.4	456.7	545.2	611.7	621.6
135°	278.1	290.6	303.0	306.1	340.5	386.2	409.1	446.2	520.4	576.0	584.6
137.5°	291.0	303.3	315.6	318.7	348.6	388.5	408.5	439.8	502.5	549.6	556.6
140°	301.7	313.1	324.4	327.2	353.7	388.9	406.6	433.7	487.9	528.4	535.0
142.5°	309.9	320.4	330.9	333.5	357.9	390.4	406.6	430.4	477.9	513.6	519.3
145°	322.6	331.8	340.9	343.2	363.5	390.4	403.9	423.3	462.2	491.4	495.7
147.5°	335.2	344.1	353.1	355.3	371.5	393.0	403.9	419.1	449.8	472.8	476.3
150°	343.5	351.6	359.6	361.6	375.7	394.4	403.9	416.8	442.7	462.0	464.9
152.5°	351.9	358.0	364.2	365.7	378.4	395.3	403.9	414.9	437.0	453.5	455.6
155°	364.6	369.1	373.6	374.7	384.4	397.4	403.9	412.7	430.2	443.4	444.8
157.5°	373.9	378.3	382.7	383.8	390.5	399.4	403.9	410.7	424.4	434.6	435.6
160°	380.2	383.6	387.0	387.9	393.2	400.3	403.9	409.7	421.4	430.2	430.8
162.5°	386.5	389.1	391.7	392.3	396.1	401.3	403.9	408.8	418.7	426.1	426.6
165°	393.4	395.7	398.0	398.6	400.4	402.7	403.9	407.4	414.4	419.8	420.4
167.5°	399.7	400.8	401.9	402.2	403.7	405.6	406.6	408.9	413.5	417.0	417.3
170°	403.9	404.9	406.1	406.3	406.4	406.5	406.6	408.9	413.5	417.0	417.0
172.5°	406.1	406.3	406.5	406.6	406.6	406.6	406.6	408.4	412.0	414.8	414.6
175°	409.1	409.1	409.1	409.1	408.3	407.1	406.6	407.8	410.1	411.8	411.8
177.5°	409.1	409.1	409.1	409.1	408.5	407.6	407.1	408.0	409.9	411.2	411.0
180°	409.1	409.1	409.1	409.1	409.1	409.1	409.1	409.1	409.1	409.1	409.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	547.3	547.3
2.5°	584.3	580.8
5°	751.4	755.0
7.5°	1011.9	1010.2
10°	1258.3	1274.1
12.5°	1437.8	1441.3
15°	1546.9	1553.9
17.5°	1589.2	1590.9
20°	1590.9	1587.4
22.5°	1571.5	1568.0
25°	1548.7	1546.9
27.5°	1527.5	1529.3
30°	1518.7	1524.0
32.5°	1518.7	1527.5
35°	1522.3	1531.1
37.5°	1520.5	1531.1
40°	1513.4	1525.8
42.5°	1494.1	1502.9
45°	1464.2	1474.7
47.5°	1425.5	1432.5
50°	1376.2	1383.2
52.5°	1314.6	1316.4
55°	1240.7	1247.7
57.5°	1161.5	1163.3
60°	1073.5	1078.7
62.5°	980.3	980.3
65°	881.7	885.2
67.5°	779.6	788.4
70°	675.8	677.5
72.5°	573.7	573.7
75°	468.2	469.8
77.5°	367.8	367.8
80°	272.8	274.6
82.5°	188.3	191.8
85°	117.9	117.9
87.5°	54.5	49.3
90°	10.4	10.4
92.5°	41.7	33.5
95°	145.6	120.5
97.5°	349.0	301.2
100°	502.9	445.9
102.5°	654.2	605.3
105°	847.2	820.9
107.5°	973.4	979.8
110°	1021.6	1049.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1026.0	1067.9
115°	998.7	1057.0
117.5°	941.1	1005.7
120°	894.6	957.4
122.5°	849.4	911.2
125°	784.7	841.7
127.5°	726.7	774.8
130°	692.5	736.9
132.5°	661.4	701.2
135°	618.8	653.1
137.5°	584.7	612.8
140°	561.2	587.5
142.5°	541.9	564.4
145°	512.8	529.9
147.5°	490.4	504.6
150°	476.4	487.9
152.5°	464.3	473.0
155°	450.6	456.3
157.5°	439.6	443.6
160°	433.1	435.4
162.5°	428.8	431.0
165°	422.7	425.0
167.5°	418.2	419.2
170°	417.0	417.0
172.5°	413.7	412.9
175°	411.8	411.8
177.5°	410.1	409.1
180°	409.1	409.1



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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	6.22	7.25	7.06	8.12	9.21	19.39	20.41	20.23	21.28	22.38
	3H	6.94	7.86	7.79	8.74	9.86	21.23	22.16	22.09	23.04	24.16
	4H	7.24	8.12	8.12	9.01	10.14	21.88	22.76	22.75	23.64	24.77
	6H	7.50	8.31	8.39	9.20	10.35	22.32	23.12	23.20	24.02	25.16
	8H	7.58	8.35	8.47	9.26	10.40	22.44	23.21	23.33	24.12	25.27
	12H	7.60	8.33	8.50	9.24	10.41	22.51	23.25	23.41	24.15	25.32
4H	2H	13.45	14.32	14.32	15.21	16.34	19.68	20.55	20.56	21.44	22.57
	3H	15.03	15.76	15.92	16.68	17.83	21.74	22.47	22.62	23.39	24.53
	4H	15.13	15.80	16.03	16.72	17.89	22.51	23.18	23.41	24.09	25.26
	6H	15.15	15.73	16.07	16.67	17.84	23.05	23.63	23.97	24.57	25.74
	8H	15.14	15.68	16.05	16.61	17.80	23.22	23.76	24.13	24.69	25.88
	12H	15.10	15.59	16.04	16.54	17.73	23.31	23.80	24.25	24.76	25.95
8H	4H	16.59	17.13	17.51	18.06	19.25	22.58	23.12	23.50	24.06	25.24
	6H	16.84	17.29	17.78	18.26	19.45	23.21	23.67	24.16	24.64	25.83
	8H	16.86	17.26	17.81	18.22	19.43	23.43	23.83	24.39	24.80	26.00
	12H	16.84	17.19	17.79	18.15	19.40	23.58	23.94	24.54	24.89	26.15
12H	4H	16.74	17.23	17.68	18.18	19.37	22.54	23.03	23.48	23.98	25.18
	6H	17.10	17.50	18.05	18.46	19.67	23.20	23.60	24.15	24.56	25.77
	8H	17.18	17.53	18.13	18.49	19.74	23.44	23.79	24.39	24.75	26.00