

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: P936424

Luminaire Tested: SQ4-FB-025U-100D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

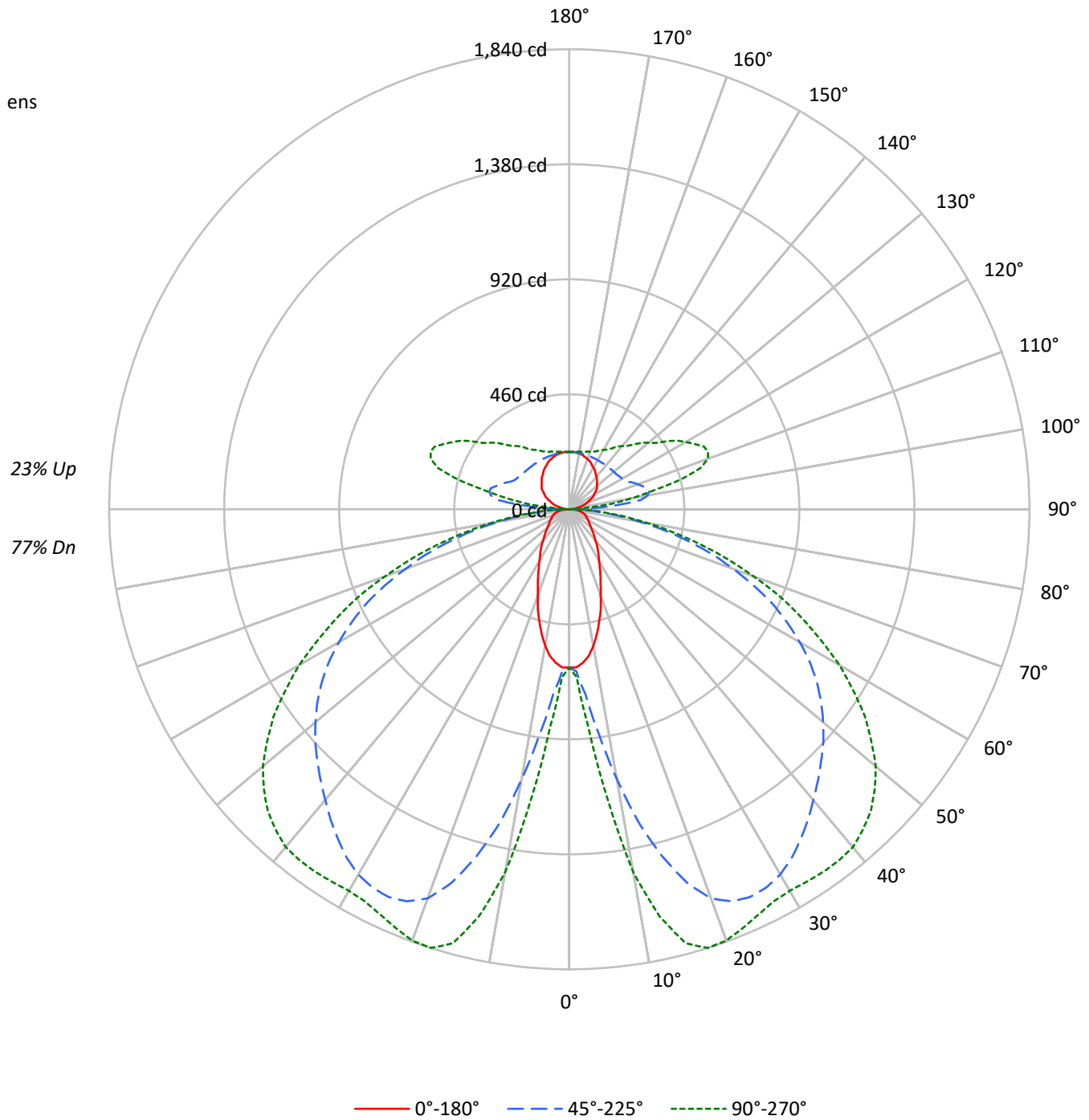
Test Method: LM-79-2019  
Report Number: P936424  
REPORT IS A COMBINATION OF REPORTS P933455 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-100D-927-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6386.4 lumens  
Efficiency: N/A  
Efficacy: 82.3 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 77.6  
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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77			77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66	63			63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55	51			51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45	42			42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38	35			35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33	30			30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28	26			26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25	22			22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22	20			20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	20	17			17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17	16			16

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

	0°	45°	90°
0°	2936	2936	2936
5°	2868	3393	3946
10°	2602	4947	6543
15°	2211	6463	7901
20°	1800	7489	8052
25°	1502	7837	7888
30°	1266	7887	7873
35°	1120	7756	8077
40°	976	7586	8287
45°	884	7461	8320
50°	811	7349	8182
55°	776	7185	7819
60°	795	6869	7247
65°	826	6390	6460
70°	880	5572	5457
75°	976	4543	4259
80°	1065	3151	2870
85°	946	1672	1469

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8320 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.9	1.3
10°-20°	362.8	5.7
20°-30°	634.6	9.9
30°-40°	816.9	12.8
40°-50°	912.5	14.3
50°-60°	873.9	13.7
60°-70°	692.6	10.8
70°-80°	407.3	6.4
80°-90°	114.0	1.8
90°-100°	112.0	1.8
100°-110°	294.5	4.6
110°-120°	305.4	4.8
120°-130°	245.0	3.8
130°-140°	192.2	3.0
140°-150°	147.5	2.3
150°-160°	106.2	1.7
160°-170°	65.0	1.0
170°-180°	22.0	0.3
0°-30°	1079.3	16.9
0°-40°	1896.2	29.7
0°-60°	3682.6	57.7
0°-90°	4896.6	76.7
90°-120°	711.9	11.1
90°-150°	1296.7	20.3
90°-180°	1490.0	23.3
0°-180°	6386.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	616	661	745	842	873	57
15°	462	853	1437	1742	1797	129
25°	295	967	1711	1787	1789	136
35°	199	924	1612	1703	1770	125
45°	136	737	1424	1632	1705	105
55°	98	468	1209	1404	1443	89
65°	77	248	897	1009	1024	77
75°	57	153	492	541	543	60
85°	20	47	122	134	136	22
90°	2	4	12	6	6	3
95°	15	58	193	100	68	16
105°	53	80	326	494	461	56
115°	94	114	261	520	594	93
125°	131	147	237	401	473	116
135°	156	172	230	324	367	121
145°	181	193	227	276	298	114
155°	205	210	227	249	256	94
165°	221	224	227	236	239	62
175°	230	230	228	231	231	22
180°	230	230	230	230	230	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9
2.5°	632.9	632.9	636.9	638.9	643.0	645.0	649.1	653.2	665.4	667.4	671.5
5°	616.5	624.7	651.2	661.4	689.8	728.5	744.7	771.2	826.1	842.5	852.6
7.5°	592.1	610.5	675.6	691.8	763.1	864.8	907.5	964.5	1052.1	1094.8	1129.4
10°	553.5	592.1	708.2	746.8	862.8	1017.4	1096.8	1176.2	1308.4	1367.4	1389.8
12.5°	510.7	573.8	742.7	795.6	962.5	1188.3	1284.0	1371.5	1522.1	1601.4	1613.6
15°	461.9	547.4	775.3	852.6	1068.3	1330.8	1436.6	1544.5	1684.8	1741.8	1756.1
17.5°	419.2	527.1	805.8	887.2	1149.7	1459.0	1566.9	1656.3	1770.3	1809.0	1819.2
20°	366.3	494.5	826.1	931.9	1235.2	1552.6	1656.3	1725.6	1802.9	1827.3	1831.4
22.5°	327.6	459.8	838.4	948.3	1292.1	1609.6	1697.1	1752.0	1805.0	1813.0	1815.1
25°	295.1	421.2	836.3	966.6	1341.0	1644.2	1711.3	1752.0	1782.6	1786.6	1786.6
27.5°	264.5	378.5	828.2	970.7	1377.6	1652.3	1705.2	1733.7	1748.0	1756.1	1756.1
30°	238.1	337.8	807.8	962.5	1393.9	1644.2	1686.9	1701.2	1715.4	1727.6	1733.7
32.5°	217.8	299.1	777.3	946.2	1395.9	1623.9	1654.3	1662.5	1682.8	1711.3	1721.5
35°	199.4	260.5	742.7	923.8	1383.7	1591.3	1611.6	1619.8	1660.4	1703.2	1717.4
37.5°	181.1	232.0	697.9	885.2	1365.4	1552.6	1566.9	1581.1	1644.2	1695.0	1711.3
40°	162.8	207.6	645.0	842.5	1336.9	1505.8	1518.0	1540.4	1623.9	1682.8	1699.1
42.5°	148.5	187.2	588.0	797.6	1300.3	1452.9	1471.2	1503.7	1599.4	1662.5	1680.8
45°	136.4	166.9	527.1	736.6	1253.5	1397.9	1424.4	1469.2	1570.9	1631.9	1648.3
47.5°	124.1	152.6	463.9	673.5	1202.6	1343.0	1377.6	1428.5	1532.2	1591.3	1605.5
50°	114.0	138.4	400.9	606.4	1147.7	1284.0	1324.7	1377.6	1483.4	1538.4	1556.6
52.5°	105.8	126.1	341.9	539.2	1084.5	1222.9	1269.7	1324.7	1424.4	1477.3	1489.5
55°	97.6	116.0	291.0	468.0	1019.5	1157.8	1208.7	1261.6	1359.3	1404.0	1412.2
57.5°	93.6	107.9	248.2	400.9	950.3	1084.5	1141.5	1190.4	1282.0	1316.5	1324.7
60°	87.5	101.7	215.7	343.9	875.0	1015.4	1064.2	1113.0	1190.4	1218.9	1225.0
62.5°	81.4	97.6	191.3	289.0	797.6	934.0	982.8	1027.6	1092.7	1113.0	1121.2
65°	77.3	93.6	172.9	248.2	718.3	848.5	897.4	936.0	988.9	1009.3	1013.4
67.5°	73.2	89.6	158.7	213.7	638.9	763.1	799.7	836.3	877.0	897.4	899.4
70°	67.1	85.5	146.5	189.3	557.6	665.4	695.9	734.6	767.2	777.3	783.4
72.5°	63.1	79.4	138.4	170.9	474.1	571.8	600.3	622.7	651.2	661.4	661.4
75°	57.0	71.2	130.2	152.6	388.7	468.0	492.4	514.8	537.2	541.3	535.2
77.5°	50.9	63.1	111.9	128.2	303.2	370.4	390.7	402.9	421.2	425.3	427.4
80°	42.7	55.0	87.5	99.7	219.8	272.7	286.9	297.1	313.4	313.4	317.5
82.5°	32.6	42.7	63.1	71.2	148.5	187.2	199.4	205.5	215.7	215.7	215.7
85°	20.3	26.5	40.7	46.8	89.6	114.0	122.1	124.1	132.3	134.3	134.3
87.5°	10.2	14.2	26.5	28.5	46.8	59.0	59.0	63.1	63.1	61.1	59.0
90°	1.5	2.8	4.0	4.3	6.8	10.1	11.7	10.4	7.8	5.9	5.9
92.5°	6.2	16.6	27.2	29.8	41.9	58.0	66.0	57.8	41.6	29.3	28.2
95°	14.8	34.0	53.2	58.0	102.9	162.9	193.0	172.2	130.7	99.5	95.9
97.5°	25.6	42.6	59.4	63.7	138.7	238.7	288.8	275.7	249.4	229.7	223.0
100°	34.0	49.3	64.6	68.5	151.7	262.6	318.2	319.2	321.1	322.6	314.5
102.5°	41.0	55.4	69.7	73.2	157.7	270.3	326.6	343.3	376.7	401.8	394.9
105°	53.1	65.2	77.4	80.4	162.2	271.1	325.6	363.1	438.1	494.3	490.6
107.5°	65.4	76.7	88.0	90.9	162.9	259.0	307.1	359.4	464.0	542.5	543.4
110°	73.8	83.9	94.2	96.7	161.7	248.3	291.7	350.1	467.1	554.8	558.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	81.9	91.6	101.3	103.8	161.8	239.0	277.7	337.5	457.1	546.9	552.9
115°	94.2	103.2	112.2	114.4	163.2	228.3	260.8	318.5	433.8	520.3	528.5
117.5°	106.4	114.6	122.7	124.8	166.3	221.6	249.2	301.3	405.3	483.4	492.5
120°	113.5	121.2	128.9	130.8	168.8	219.4	244.6	292.1	387.2	458.5	467.3
122.5°	120.4	128.2	136.0	137.9	172.3	218.1	241.1	283.9	369.5	433.7	442.4
125°	131.1	138.2	145.2	147.0	177.1	217.2	237.2	273.6	346.3	400.9	408.9
127.5°	139.8	146.8	154.0	155.8	181.9	216.6	234.0	265.3	327.7	374.5	381.3
130°	144.4	152.1	159.7	161.6	185.3	217.0	232.8	260.6	316.2	357.8	364.1
132.5°	149.1	156.8	164.5	166.4	188.2	217.2	231.7	256.6	306.3	343.7	349.3
135°	156.2	163.2	170.2	172.0	191.3	217.0	229.8	250.7	292.4	323.6	328.4
137.5°	163.5	170.4	177.3	179.1	195.9	218.3	229.5	247.2	282.4	308.8	312.7
140°	169.5	175.9	182.3	183.9	198.7	218.5	228.5	243.7	274.1	296.9	300.6
142.5°	174.2	180.0	186.0	187.4	201.1	219.4	228.5	241.9	268.6	288.6	291.8
145°	181.3	186.4	191.5	192.8	204.2	219.4	226.9	237.9	259.7	276.1	278.5
147.5°	188.3	193.3	198.4	199.6	208.7	220.8	226.9	235.5	252.7	265.6	267.6
150°	193.0	197.5	202.0	203.1	211.1	221.6	226.9	234.2	248.7	259.6	261.2
152.5°	197.7	201.1	204.6	205.4	212.6	222.1	226.9	233.1	245.5	254.8	256.0
155°	204.8	207.4	209.9	210.5	216.0	223.3	226.9	231.8	241.7	249.1	249.9
157.5°	210.1	212.5	215.0	215.6	219.4	224.4	226.9	230.8	238.4	244.2	244.7
160°	213.6	215.5	217.4	217.9	220.9	224.9	226.9	230.2	236.8	241.7	242.0
162.5°	217.1	218.6	220.0	220.4	222.5	225.5	226.9	229.7	235.2	239.4	239.7
165°	221.1	222.4	223.7	224.0	225.0	226.3	226.9	228.9	232.8	235.9	236.2
167.5°	224.6	225.2	225.8	226.0	226.8	227.9	228.5	229.8	232.4	234.3	234.5
170°	226.9	227.5	228.2	228.3	228.4	228.5	228.5	229.8	232.4	234.3	234.3
172.5°	228.2	228.3	228.5	228.5	228.5	228.5	228.5	229.5	231.5	233.1	232.9
175°	229.8	229.8	229.8	229.8	229.4	228.8	228.5	229.1	230.4	231.4	231.4
177.5°	229.8	229.8	229.8	229.8	229.5	229.0	228.8	229.3	230.3	231.1	230.9
180°	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	632.9	632.9
2.5°	675.6	671.5
5°	868.9	872.9
7.5°	1170.0	1168.0
10°	1454.9	1473.2
12.5°	1662.5	1666.6
15°	1788.6	1796.8
17.5°	1837.5	1839.5
20°	1839.5	1835.4
22.5°	1817.1	1813.0
25°	1790.7	1788.6
27.5°	1766.2	1768.3
30°	1756.1	1762.2
32.5°	1756.1	1766.2
35°	1760.1	1770.3
37.5°	1758.1	1770.3
40°	1750.0	1764.2
42.5°	1727.6	1737.7
45°	1693.0	1705.2
47.5°	1648.3	1656.3
50°	1591.3	1599.4
52.5°	1520.1	1522.1
55°	1434.6	1442.7
57.5°	1343.0	1345.0
60°	1241.2	1247.4
62.5°	1133.4	1133.4
65°	1019.5	1023.6
67.5°	901.4	911.6
70°	781.4	783.4
72.5°	663.4	663.4
75°	541.3	543.3
77.5°	425.3	425.3
80°	315.4	317.5
82.5°	217.8	221.8
85°	136.4	136.4
87.5°	63.1	57.0
90°	5.9	5.9
92.5°	23.5	18.8
95°	81.9	67.7
97.5°	196.0	169.2
100°	282.5	250.5
102.5°	367.5	340.1
105°	475.9	461.2
107.5°	546.9	550.5
110°	574.0	589.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	576.4	600.0
115°	561.2	593.8
117.5°	528.8	565.0
120°	502.6	537.8
122.5°	477.2	511.9
125°	440.9	472.9
127.5°	408.3	435.3
130°	389.0	414.0
132.5°	371.6	393.9
135°	347.7	366.9
137.5°	328.5	344.3
140°	315.3	330.1
142.5°	304.5	317.1
145°	288.1	297.7
147.5°	275.5	283.5
150°	267.7	274.1
152.5°	260.9	265.7
155°	253.1	256.3
157.5°	247.0	249.2
160°	243.3	244.6
162.5°	240.9	242.2
165°	237.5	238.8
167.5°	235.0	235.5
170°	234.3	234.3
172.5°	232.5	232.0
175°	231.4	231.4
177.5°	230.4	229.8
180°	229.8	229.8



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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	6.88	8.11	7.56	8.82	9.64	20.06	21.29	20.74	22.00	22.82
	3H	7.61	8.73	8.30	9.44	10.30	21.92	23.04	22.62	23.75	24.61
	4H	7.92	8.98	8.64	9.70	10.58	22.58	23.64	23.30	24.36	25.24
	6H	8.20	9.17	8.92	9.91	10.79	23.03	24.01	23.76	24.75	25.63
	8H	8.27	9.21	9.01	9.96	10.85	23.17	24.10	23.90	24.85	25.74
	12H	8.30	9.19	9.05	9.94	10.86	23.25	24.14	23.99	24.89	25.81
4H	2H	14.14	15.19	14.85	15.92	16.79	20.37	21.43	21.09	22.15	23.03
	3H	15.74	16.62	16.47	17.38	18.28	22.45	23.34	23.18	24.10	24.99
	4H	15.85	16.66	16.59	17.42	18.34	23.24	24.04	23.98	24.81	25.73
	6H	15.88	16.58	16.64	17.37	18.30	23.80	24.50	24.56	25.29	26.21
	8H	15.87	16.53	16.64	17.31	18.25	23.97	24.63	24.74	25.41	26.35
	12H	15.84	16.44	16.63	17.24	18.19	24.08	24.68	24.87	25.48	26.43
8H	4H	17.33	17.98	18.09	18.77	19.71	23.33	23.99	24.10	24.77	25.71
	6H	17.58	18.13	18.38	18.96	19.90	23.98	24.52	24.77	25.35	26.29
	8H	17.61	18.10	18.42	18.92	19.88	24.20	24.69	25.01	25.51	26.47
	12H	17.60	18.03	18.41	18.84	19.86	24.36	24.79	25.18	25.61	26.62
12H	4H	17.49	18.08	18.28	18.89	19.83	23.30	23.89	24.09	24.70	25.65
	6H	17.85	18.34	18.66	19.16	20.12	23.96	24.45	24.77	25.28	26.23
	8H	17.94	18.37	18.75	19.18	20.20	24.21	24.64	25.03	25.46	26.47