

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: P936794

Luminaire Tested: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

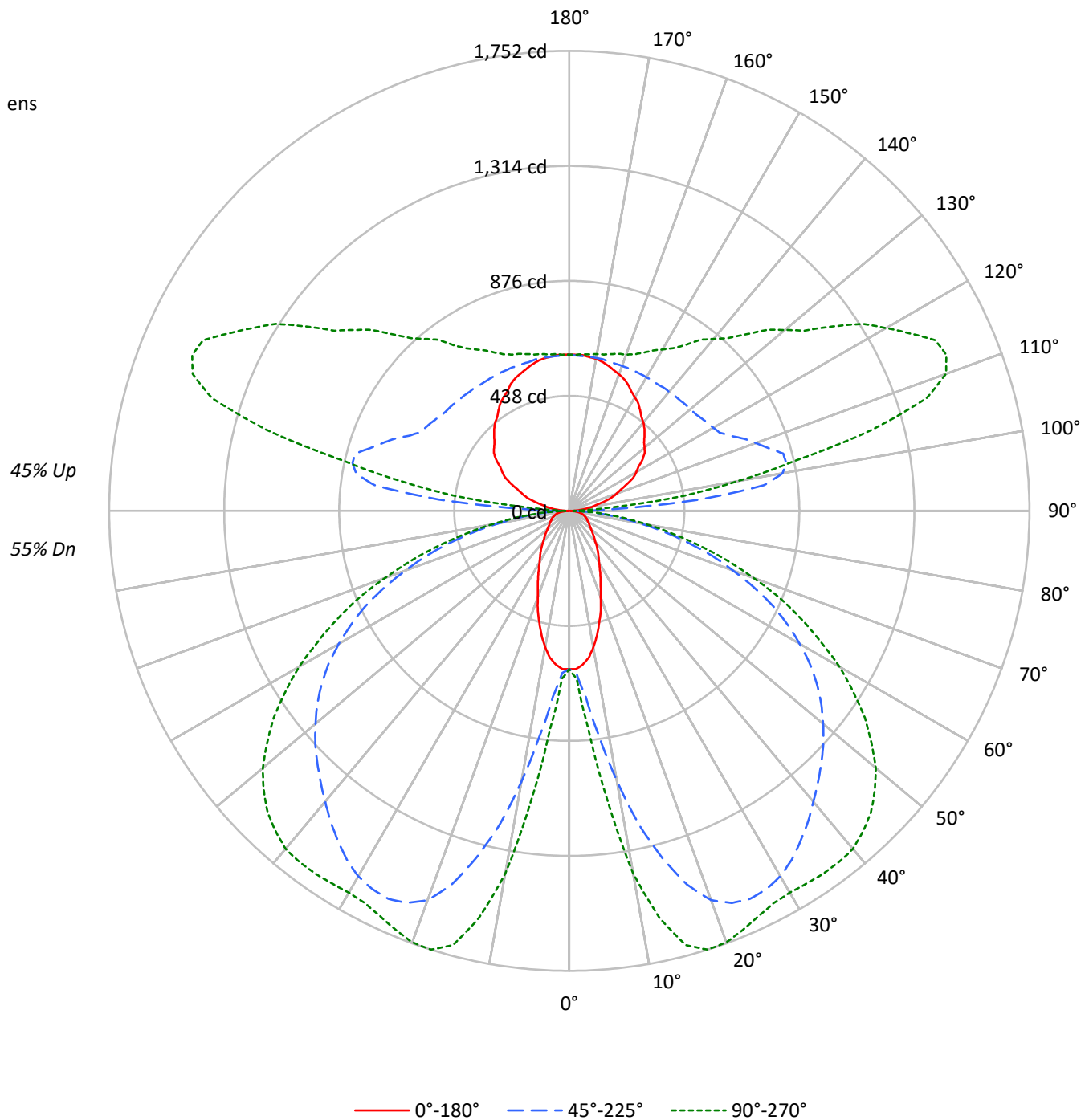
Test Method: LM-79-2019  
Report Number: P936794  
REPORT IS A COMBINATION OF REPORTS P933486 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8523.3 lumens  
Efficiency: N/A  
Efficacy: 117.1 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: General Diffuse  
  
Input Watts (W): 72.8  
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	0
RCR																		
0	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11

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

	0°	45°	90°
0°	2796	2796	2796
5°	2732	3232	3759
10°	2478	4711	6232
15°	2106	6156	7525
20°	1714	7133	7669
25°	1430	7465	7513
30°	1206	7512	7499
35°	1066	7387	7693
40°	929	7225	7893
45°	841	7106	7924
50°	772	6999	7793
55°	739	6843	7447
60°	757	6542	6902
65°	787	6086	6152
70°	839	5307	5197
75°	930	4327	4056
80°	1015	3001	2733
85°	904	1592	1398

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7924 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.0	0.9
10°-20°	345.6	4.1
20°-30°	604.4	7.1
30°-40°	778.1	9.1
40°-50°	869.1	10.2
50°-60°	832.4	9.8
60°-70°	659.6	7.7
70°-80°	387.9	4.6
80°-90°	110.0	1.3
90°-100°	290.1	3.4
100°-110°	762.7	8.9
110°-120°	790.9	9.3
120°-130°	634.4	7.4
130°-140°	497.8	5.8
140°-150°	382.1	4.5
150°-160°	275.1	3.2
160°-170°	168.3	2.0
170°-180°	56.9	0.7
0°-30°	1028.0	12.1
0°-40°	1806.0	21.2
0°-60°	3507.5	41.2
0°-90°	4665.1	54.7
90°-120°	1843.7	21.6
90°-150°	3357.9	39.4
90°-180°	3858.0	45.3
0°-180°	8523.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	603	603	603	603	603	
5°	587	630	709	802	831	54
15°	440	812	1368	1659	1711	122
25°	281	921	1630	1702	1704	129
35°	190	880	1535	1622	1686	119
45°	130	702	1357	1554	1624	100
55°	93	446	1151	1337	1374	85
65°	74	236	855	961	975	73
75°	54	145	469	516	517	57
85°	19	45	116	128	130	21
90°	4	11	30	15	15	5
95°	38	150	500	258	175	43
105°	137	208	843	1280	1194	146
115°	244	296	676	1347	1538	241
125°	340	381	614	1038	1225	301
135°	405	445	595	838	950	313
145°	469	499	588	715	771	294
155°	530	545	588	645	664	244
165°	572	580	588	611	618	162
175°	595	595	592	599	599	56
180°	595	595	595	595	595	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7
2.5°	602.7	602.7	606.6	608.5	612.4	614.3	618.2	622.1	633.7	635.7	639.5
5°	587.2	595.0	620.2	629.8	657.0	693.8	709.3	734.5	786.8	802.3	812.0
7.5°	564.0	581.4	643.4	658.9	726.8	823.6	864.3	918.6	1001.9	1042.6	1075.6
10°	527.1	564.0	674.4	711.2	821.7	969.0	1044.6	1120.3	1246.2	1302.4	1323.8
12.5°	486.4	546.5	707.4	757.8	916.7	1131.9	1223.0	1306.3	1449.7	1525.3	1536.9
15°	439.9	521.3	738.4	812.0	1017.4	1267.5	1368.3	1471.0	1604.8	1659.0	1672.6
17.5°	399.2	501.9	767.4	845.0	1095.0	1389.6	1492.4	1577.6	1686.2	1723.0	1732.7
20°	348.8	470.9	786.8	887.6	1176.5	1478.8	1577.6	1643.5	1717.2	1740.4	1744.3
22.5°	312.0	438.0	798.5	903.1	1230.7	1533.1	1616.4	1668.7	1719.1	1726.9	1728.8
25°	281.0	401.2	796.5	920.6	1277.2	1566.0	1630.0	1668.7	1697.8	1701.7	1701.7
27.5°	251.9	360.5	788.8	924.4	1312.1	1573.8	1624.1	1651.3	1664.8	1672.6	1672.6
30°	226.7	321.7	769.4	916.7	1327.6	1566.0	1606.7	1620.3	1633.8	1645.5	1651.3
32.5°	207.4	284.9	740.3	901.2	1329.6	1546.6	1575.7	1583.4	1602.8	1630.0	1639.6
35°	189.9	248.1	707.4	879.9	1317.9	1515.6	1535.0	1542.7	1581.5	1622.2	1635.8
37.5°	172.5	220.9	664.7	843.0	1300.5	1478.8	1492.4	1505.9	1566.0	1614.5	1630.0
40°	155.0	197.7	614.3	802.3	1273.4	1434.2	1445.8	1467.2	1546.6	1602.8	1618.3
42.5°	141.5	178.3	560.1	759.7	1238.5	1383.8	1401.3	1432.3	1523.4	1583.4	1600.9
45°	129.8	158.9	501.9	701.6	1193.9	1331.5	1356.7	1399.3	1496.2	1554.4	1569.9
47.5°	118.2	145.4	441.9	641.5	1145.5	1279.2	1312.1	1360.6	1459.4	1515.6	1529.2
50°	108.5	131.8	381.8	577.5	1093.0	1223.0	1261.7	1312.1	1412.9	1465.2	1482.7
52.5°	100.8	120.2	325.6	513.6	1033.0	1164.8	1209.4	1261.7	1356.7	1407.1	1418.7
55°	93.0	110.5	277.1	445.7	970.9	1102.8	1151.3	1201.7	1294.7	1337.3	1345.1
57.5°	89.1	102.7	236.4	381.8	905.0	1033.0	1087.2	1133.8	1221.0	1254.0	1261.7
60°	83.3	96.9	205.4	327.5	833.3	967.1	1013.6	1060.1	1133.8	1161.0	1166.8
62.5°	77.5	93.0	182.2	275.2	759.7	889.5	936.1	978.7	1040.7	1060.1	1067.8
65°	73.6	89.1	164.7	236.4	684.1	808.1	854.7	891.5	941.9	961.2	965.1
67.5°	69.8	85.3	151.2	203.5	608.5	726.8	761.6	796.5	835.3	854.7	856.6
70°	64.0	81.4	139.5	180.2	531.0	633.7	662.8	699.6	730.6	740.3	746.1
72.5°	60.1	75.6	131.8	162.8	451.6	544.6	571.7	593.0	620.2	629.8	629.8
75°	54.3	67.8	124.0	145.4	370.2	445.7	469.0	490.3	511.6	515.5	509.7
77.5°	48.4	60.1	106.6	122.1	288.8	352.7	372.1	383.7	401.2	405.0	407.0
80°	40.7	52.3	83.3	95.0	209.3	259.7	273.3	282.9	298.5	298.5	302.3
82.5°	31.0	40.7	60.1	67.8	141.5	178.3	189.9	195.7	205.4	205.4	205.4
85°	19.4	25.2	38.8	44.6	85.3	108.5	116.3	118.2	126.0	127.9	127.9
87.5°	9.7	13.6	25.2	27.1	44.6	56.2	56.2	60.1	60.1	58.1	56.2
90°	4.0	7.2	10.4	11.1	17.5	26.1	30.3	26.9	20.3	15.2	15.2
92.5°	16.0	43.1	70.3	77.1	108.4	150.1	170.9	149.8	107.6	75.9	72.9
95°	38.4	88.1	137.8	150.2	266.7	422.0	499.7	445.9	338.4	257.7	248.5
97.5°	66.3	110.1	154.0	164.9	359.2	618.2	747.8	713.8	645.7	594.8	577.3
100°	87.9	127.6	167.3	177.3	392.9	680.3	824.0	826.6	831.5	835.2	814.4
102.5°	106.3	143.4	180.4	189.7	408.3	699.9	845.6	889.0	975.6	1040.5	1022.8
105°	137.4	168.8	200.3	208.1	419.9	702.1	843.2	940.3	1134.6	1280.2	1270.6
107.5°	169.4	198.6	227.9	235.3	421.9	670.8	795.3	930.7	1201.7	1404.9	1407.2
110°	190.9	217.3	243.9	250.5	418.8	643.1	755.3	906.8	1209.6	1436.7	1446.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	212.1	237.3	262.5	268.8	418.9	619.0	719.0	873.9	1183.9	1416.4	1431.7
115°	244.1	267.3	290.6	296.4	422.8	591.3	675.5	824.8	1123.4	1347.3	1368.4
117.5°	275.6	296.7	317.8	323.2	430.6	573.8	645.5	780.2	1049.7	1251.9	1275.3
120°	294.0	313.9	333.8	338.8	437.0	568.0	633.5	756.6	1002.8	1187.5	1210.3
122.5°	311.9	332.0	352.0	357.1	446.1	564.9	624.3	735.2	957.0	1123.3	1145.7
125°	339.5	357.8	376.1	380.6	458.5	562.4	614.3	708.5	896.9	1038.2	1058.9
127.5°	361.9	380.3	398.7	403.4	470.9	561.0	605.9	686.8	848.6	969.9	987.3
130°	373.8	393.7	413.7	418.6	479.9	561.8	602.7	674.7	818.7	926.7	942.8
132.5°	386.2	406.1	426.1	431.0	487.3	562.4	600.0	664.4	793.3	889.9	904.4
135°	404.7	422.8	440.8	445.4	495.3	561.8	595.2	649.1	757.1	838.0	850.5
137.5°	423.5	441.4	459.3	463.8	507.3	565.3	594.4	640.0	731.3	799.7	809.9
140°	439.0	455.5	472.0	476.2	514.6	565.9	591.6	631.0	709.8	768.9	778.4
142.5°	451.0	466.2	481.5	485.3	520.7	567.9	591.6	626.2	695.5	747.4	755.6
145°	469.4	482.7	496.0	499.3	528.8	568.0	587.6	615.9	672.6	715.0	721.2
147.5°	487.7	500.7	513.7	516.9	540.4	571.9	587.6	609.9	654.4	687.8	692.9
150°	499.7	511.4	523.2	526.1	546.6	573.9	587.6	606.4	644.1	672.3	676.5
152.5°	512.1	521.0	529.8	532.1	550.6	575.3	587.6	603.7	635.8	659.9	663.1
155°	530.4	537.0	543.6	545.3	559.4	578.2	587.6	600.4	625.9	645.1	647.2
157.5°	544.0	550.4	556.8	558.4	568.1	581.1	587.6	597.5	617.3	632.3	633.7
160°	553.2	558.2	563.2	564.4	572.2	582.5	587.6	596.1	613.1	625.9	626.7
162.5°	562.4	566.2	569.9	570.8	576.5	583.9	587.6	594.8	609.2	620.0	620.7
165°	572.4	575.8	579.1	579.9	582.5	585.9	587.6	592.7	603.0	610.8	611.6
167.5°	581.6	583.1	584.8	585.2	587.3	590.1	591.6	595.0	601.7	606.8	607.2
170°	587.6	589.2	590.8	591.2	591.3	591.5	591.6	595.0	601.7	606.8	606.8
172.5°	590.8	591.2	591.5	591.6	591.6	591.6	591.6	594.3	599.6	603.6	603.3
175°	595.2	595.2	595.2	595.2	594.0	592.3	591.6	593.2	596.6	599.1	599.1
177.5°	595.2	595.2	595.2	595.2	594.2	592.9	592.3	593.7	596.3	598.4	598.0
180°	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	602.7	602.7
2.5°	643.4	639.5
5°	827.5	831.4
7.5°	1114.4	1112.5
10°	1385.8	1403.2
12.5°	1583.4	1587.3
15°	1703.6	1711.4
17.5°	1750.1	1752.0
20°	1752.0	1748.2
22.5°	1730.7	1726.9
25°	1705.5	1703.6
27.5°	1682.3	1684.2
30°	1672.6	1678.4
32.5°	1672.6	1682.3
35°	1676.5	1686.2
37.5°	1674.5	1686.2
40°	1666.8	1680.3
42.5°	1645.5	1655.1
45°	1612.5	1624.1
47.5°	1569.9	1577.6
50°	1515.6	1523.4
52.5°	1447.8	1449.7
55°	1366.4	1374.1
57.5°	1279.2	1281.1
60°	1182.3	1188.1
62.5°	1079.5	1079.5
65°	970.9	974.8
67.5°	858.5	868.2
70°	744.2	746.1
72.5°	631.8	631.8
75°	515.5	517.4
77.5°	405.0	405.0
80°	300.4	302.3
82.5°	207.4	211.2
85°	129.8	129.8
87.5°	60.1	54.3
90°	15.2	15.2
92.5°	60.8	48.7
95°	211.9	175.4
97.5°	507.8	438.2
100°	731.6	648.6
102.5°	951.8	880.7
105°	1232.5	1194.3
107.5°	1416.4	1425.6
110°	1486.4	1526.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1492.7	1553.8
115°	1453.1	1537.8
117.5°	1369.3	1463.2
120°	1301.6	1392.8
122.5°	1235.8	1325.8
125°	1141.8	1224.7
127.5°	1057.3	1127.2
130°	1007.5	1072.1
132.5°	962.3	1020.2
135°	900.4	950.3
137.5°	850.8	891.6
140°	816.6	854.8
142.5°	788.4	821.2
145°	746.1	770.9
147.5°	713.6	734.2
150°	693.1	709.8
152.5°	675.7	688.3
155°	655.5	663.9
157.5°	639.6	645.5
160°	630.1	633.5
162.5°	623.9	627.1
165°	614.9	618.3
167.5°	608.5	610.0
170°	606.8	606.8
172.5°	602.0	600.8
175°	599.1	599.1
177.5°	596.6	595.2
180°	595.2	595.2



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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	5.00	5.95	5.90	6.88	8.08	18.18	19.13	19.08	20.06	21.26
	3H	5.71	6.56	6.63	7.50	8.73	20.02	20.88	20.94	21.82	23.04
	4H	6.01	6.82	6.95	7.77	9.00	20.67	21.48	21.61	22.43	23.66
	6H	6.27	7.01	7.21	7.97	9.21	21.11	21.85	22.05	22.81	24.05
	8H	6.34	7.05	7.29	8.02	9.26	21.23	21.94	22.18	22.91	24.16
	12H	6.36	7.04	7.32	8.00	9.27	21.30	21.98	22.26	22.94	24.21
4H	2H	12.22	13.03	13.16	13.98	15.21	18.46	19.27	19.40	20.22	21.45
	3H	13.80	14.48	14.75	15.45	16.70	20.52	21.19	21.47	22.17	23.42
	4H	13.90	14.52	14.86	15.49	16.76	21.29	21.91	22.25	22.88	24.15
	6H	13.92	14.45	14.89	15.45	16.71	21.83	22.37	22.80	23.36	24.63
	8H	13.89	14.39	14.87	15.38	16.67	22.00	22.50	22.97	23.48	24.77
	12H	13.86	14.31	14.85	15.31	16.60	22.09	22.55	23.09	23.55	24.84
8H	4H	15.35	15.85	16.33	16.84	18.12	21.35	21.86	22.33	22.84	24.13
	6H	15.60	16.01	16.60	17.04	18.33	21.99	22.40	22.99	23.43	24.72
	8H	15.62	15.98	16.63	17.00	18.30	22.21	22.58	23.22	23.59	24.89
	12H	15.59	15.91	16.60	16.92	18.27	22.36	22.68	23.37	23.69	25.04
12H	4H	15.50	15.95	16.49	16.96	18.25	21.31	21.76	22.31	22.77	24.06
	6H	15.86	16.23	16.87	17.24	18.54	21.97	22.34	22.98	23.36	24.66
	8H	15.93	16.25	16.95	17.27	18.61	22.21	22.53	23.22	23.54	24.89