

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: P936842

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-6-6500K

Issue Date: 12/17/2024

**Test Information**

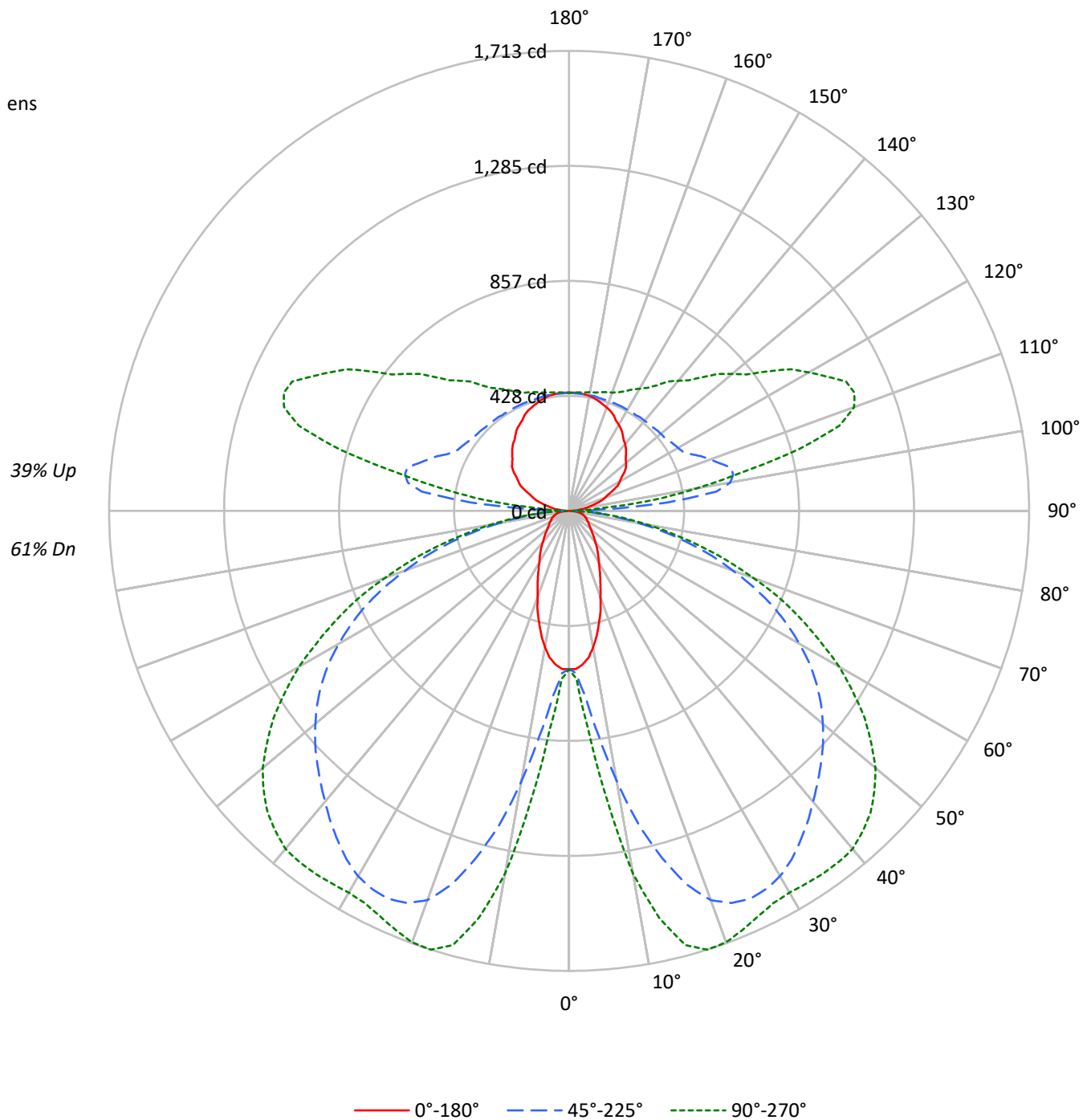
Test Method: LM-79-2019  
Report Number: P936842  
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-6-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7416.3 lumens  
Efficiency: N/A  
Efficacy: 109.4 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<sub>in</sub>): 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: P936842  
CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-6-6500K

### 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°	3646	3646	3646
5°	3560	4212	4901
10°	3228	6139	8124
15°	2743	8019	9809
20°	2232	9290	9998
25°	1861	9720	9795
30°	1569	9778	9776
35°	1386	9613	10029
40°	1207	9399	10290
45°	1093	9242	10330
50°	1001	9101	10160
55°	958	8893	9709
60°	980	8499	8998
65°	1018	7901	8020
70°	1081	6886	6776
75°	1195	5610	5287
80°	1295	3886	3564
85°	1127	2058	1824

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10330 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.2	1.0
10°-20°	337.9	4.6
20°-30°	591.0	8.0
30°-40°	760.8	10.3
40°-50°	849.8	11.5
50°-60°	813.9	11.0
60°-70°	645.0	8.7
70°-80°	379.3	5.1
80°-90°	107.1	1.4
90°-100°	214.7	2.9
100°-110°	564.5	7.6
110°-120°	585.3	7.9
120°-130°	469.5	6.3
130°-140°	368.4	5.0
140°-150°	282.7	3.8
150°-160°	203.6	2.7
160°-170°	124.6	1.7
170°-180°	42.1	0.6
0°-30°	1005.1	13.6
0°-40°	1765.9	23.8
0°-60°	3429.5	46.2
0°-90°	4560.8	61.5
90°-120°	1364.5	18.4
90°-150°	2485.1	33.5
90°-180°	2855.0	38.5
0°-180°	7416.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	574	616	694	785	813	53
15°	430	794	1338	1622	1673	120
25°	275	900	1594	1664	1666	127
35°	186	860	1501	1586	1649	116
45°	127	686	1326	1520	1588	98
55°	91	436	1126	1308	1344	83
65°	72	231	836	940	953	71
75°	53	142	459	504	506	56
85°	19	44	114	125	127	20
90°	3	8	22	11	11	4
95°	28	111	370	191	130	32
105°	102	154	624	948	884	108
115°	181	219	500	997	1138	178
125°	251	282	455	768	906	223
135°	300	330	440	620	703	232
145°	347	370	435	529	571	218
155°	393	404	435	477	491	180
165°	424	429	435	452	458	120
175°	440	440	438	443	443	42
180°	440	440	440	440	440	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	589.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3
2.5°	589.3	589.3	593.1	595.0	598.8	600.7	604.5	608.3	619.6	621.5	625.4
5°	574.2	581.7	606.4	615.9	642.4	678.4	693.5	718.2	769.4	784.6	794.0
7.5°	551.4	568.5	629.2	644.3	710.6	805.4	845.2	898.2	979.7	1019.5	1051.7
10°	515.4	551.4	659.5	695.4	803.5	947.5	1021.4	1095.3	1218.5	1273.5	1294.3
12.5°	475.6	534.4	691.7	741.0	896.3	1106.7	1195.7	1277.2	1417.5	1491.4	1502.8
15°	430.2	509.7	722.0	794.0	994.8	1239.3	1337.9	1438.3	1569.0	1622.1	1635.4
17.5°	390.4	490.8	750.4	826.2	1070.6	1358.8	1459.2	1542.5	1648.7	1684.6	1694.1
20°	341.1	460.5	769.4	867.9	1150.3	1445.9	1542.5	1607.0	1679.0	1701.7	1705.5
22.5°	305.1	428.3	780.7	883.0	1203.3	1498.9	1580.4	1631.6	1680.9	1688.4	1690.4
25°	274.8	392.2	778.8	900.2	1248.8	1531.2	1593.7	1631.6	1660.0	1663.8	1663.8
27.5°	246.3	352.5	771.3	903.9	1282.9	1538.7	1587.9	1614.5	1627.8	1635.4	1635.4
30°	221.7	314.6	752.3	896.3	1298.0	1531.2	1570.9	1584.2	1597.5	1608.8	1614.5
32.5°	202.8	278.5	723.8	881.1	1299.9	1512.2	1540.6	1548.2	1567.1	1593.7	1603.2
35°	185.7	242.6	691.7	860.3	1288.6	1481.9	1500.8	1508.4	1546.3	1586.1	1599.3
37.5°	168.7	216.0	650.0	824.3	1271.5	1445.9	1459.2	1472.4	1531.2	1578.5	1593.7
40°	151.6	193.2	600.7	784.6	1245.0	1402.3	1413.6	1434.5	1512.2	1567.1	1582.3
42.5°	138.4	174.3	547.6	742.9	1210.9	1353.0	1370.0	1400.3	1489.5	1548.2	1565.3
45°	127.0	155.4	490.8	686.0	1167.3	1301.9	1326.5	1368.2	1462.9	1519.8	1535.0
47.5°	115.6	142.1	432.1	627.3	1119.9	1250.7	1282.9	1330.3	1426.9	1481.9	1495.1
50°	106.1	128.9	373.3	564.7	1068.7	1195.7	1233.7	1282.9	1381.4	1432.6	1449.7
52.5°	98.6	117.5	318.3	502.2	1010.0	1138.9	1182.4	1233.7	1326.5	1375.8	1387.1
55°	90.9	108.0	271.0	435.8	949.4	1078.2	1125.6	1174.9	1265.8	1307.5	1315.1
57.5°	87.2	100.4	231.2	373.3	885.0	1010.0	1063.1	1108.6	1193.8	1226.0	1233.7
60°	81.5	94.8	200.9	320.2	814.9	945.6	991.1	1036.5	1108.6	1135.1	1140.7
62.5°	75.8	90.9	178.1	269.1	742.9	869.8	915.3	957.0	1017.6	1036.5	1044.2
65°	72.0	87.2	161.1	231.2	669.0	790.2	835.7	871.7	921.0	939.9	943.7
67.5°	68.2	83.4	147.8	199.0	595.0	710.6	744.7	778.8	816.8	835.7	837.6
70°	62.5	79.6	136.4	176.2	519.2	619.6	648.1	684.1	714.4	723.8	729.6
72.5°	58.7	73.9	128.9	159.2	441.6	532.5	559.0	579.8	606.4	615.9	615.9
75°	53.1	66.4	121.2	142.1	361.9	435.8	458.6	479.4	500.3	504.1	498.4
77.5°	47.3	58.7	104.2	119.4	282.4	344.9	363.8	375.2	392.2	396.1	398.0
80°	39.8	51.2	81.5	92.8	204.6	254.0	267.2	276.6	291.8	291.8	295.7
82.5°	30.3	39.8	58.7	66.4	138.4	174.3	185.7	191.4	200.9	200.9	200.9
85°	18.9	24.7	37.9	43.6	83.4	106.1	113.7	115.6	123.2	125.1	125.1
87.5°	9.5	13.3	24.7	26.5	43.6	55.0	55.0	58.7	58.7	56.9	55.0
90°	3.0	5.4	7.7	8.3	13.0	19.3	22.5	20.0	14.9	11.2	11.2
92.5°	11.9	31.9	52.0	57.1	80.2	111.1	126.5	110.8	79.6	56.1	53.9
95°	28.4	65.1	101.9	111.1	197.4	312.4	369.9	330.1	250.4	190.7	183.9
97.5°	49.1	81.6	114.0	122.1	265.9	457.6	553.4	528.3	477.9	440.1	427.2
100°	65.0	94.5	123.9	131.3	290.8	503.5	609.9	611.7	615.4	618.2	602.9
102.5°	78.6	106.1	133.6	140.5	302.3	518.0	625.8	657.9	722.0	770.1	757.0
105°	101.7	125.0	148.2	154.0	310.7	519.6	624.0	695.9	839.6	947.5	940.4
107.5°	125.4	147.1	168.7	174.1	312.3	496.5	588.5	688.7	889.3	1039.7	1041.4
110°	141.3	160.8	180.4	185.3	309.9	476.0	559.0	671.1	895.3	1063.4	1070.7



TEST NUMBER: P936842

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-6-6500K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	157.0	175.7	194.3	199.0	310.0	458.1	532.1	646.9	876.3	1048.3	1059.6
115°	180.6	197.8	215.0	219.4	312.9	437.6	499.9	610.4	831.4	997.1	1012.8
117.5°	204.0	219.6	235.2	239.1	318.7	424.7	477.7	577.4	776.9	926.5	943.9
120°	217.5	232.3	247.0	250.7	323.4	420.3	468.8	559.9	742.2	878.8	895.8
122.5°	230.9	245.7	260.6	264.3	330.2	418.0	462.0	544.1	708.3	831.3	848.0
125°	251.3	264.8	278.3	281.7	339.4	416.2	454.7	524.4	663.8	768.3	783.6
127.5°	267.8	281.5	295.2	298.6	348.5	415.2	448.5	508.3	627.9	717.7	730.6
130°	276.7	291.4	306.2	309.8	355.2	415.8	446.1	499.3	605.9	685.9	697.8
132.5°	285.9	300.6	315.4	319.0	360.7	416.2	444.1	491.8	587.1	658.6	669.3
135°	299.5	312.9	326.3	329.6	366.6	415.8	440.5	480.5	560.3	620.2	629.5
137.5°	313.3	326.6	339.8	343.2	375.4	418.3	439.8	473.6	541.1	591.8	599.3
140°	324.9	337.2	349.3	352.4	380.9	418.8	437.8	467.0	525.3	569.0	576.1
142.5°	333.7	345.0	356.3	359.1	385.3	420.3	437.8	463.5	514.6	553.1	559.2
145°	347.4	357.2	367.1	369.6	391.4	420.3	434.9	455.8	497.7	529.2	533.7
147.5°	361.0	370.5	380.2	382.6	400.0	423.2	434.9	451.3	484.3	509.1	512.9
150°	369.9	378.6	387.2	389.4	404.6	424.7	434.9	448.8	476.7	497.5	500.6
152.5°	378.9	385.5	392.1	393.8	407.4	425.7	434.9	446.7	470.5	488.3	490.6
155°	392.6	397.5	402.3	403.5	413.9	427.9	434.9	444.3	463.3	477.4	479.0
157.5°	402.7	407.3	412.1	413.3	420.4	430.1	434.9	442.2	457.0	468.0	469.0
160°	409.4	413.1	416.7	417.7	423.4	431.1	434.9	441.2	453.8	463.3	463.8
162.5°	416.2	419.0	421.8	422.4	426.6	432.1	434.9	440.2	450.8	458.8	459.4
165°	423.6	426.1	428.6	429.2	431.1	433.6	434.9	438.7	446.3	452.0	452.7
167.5°	430.4	431.5	432.8	433.1	434.7	436.8	437.8	440.3	445.3	449.0	449.3
170°	434.9	436.0	437.3	437.6	437.6	437.7	437.8	440.3	445.3	449.0	449.0
172.5°	437.3	437.6	437.7	437.8	437.8	437.8	437.8	439.8	443.7	446.6	446.4
175°	440.5	440.5	440.5	440.5	439.7	438.4	437.8	439.1	441.6	443.4	443.4
177.5°	440.5	440.5	440.5	440.5	439.8	438.9	438.4	439.4	441.4	442.8	442.5
180°	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	589.3	589.3
2.5°	629.2	625.4
5°	809.1	813.0
7.5°	1089.6	1087.8
10°	1354.9	1371.9
12.5°	1548.2	1552.0
15°	1665.7	1673.2
17.5°	1711.2	1713.0
20°	1713.0	1709.3
22.5°	1692.2	1688.4
25°	1667.6	1665.7
27.5°	1644.8	1646.8
30°	1635.4	1641.0
32.5°	1635.4	1644.8
35°	1639.2	1648.7
37.5°	1637.3	1648.7
40°	1629.6	1642.9
42.5°	1608.8	1618.4
45°	1576.7	1587.9
47.5°	1535.0	1542.5
50°	1481.9	1489.5
52.5°	1415.5	1417.5
55°	1336.0	1343.5
57.5°	1250.7	1252.6
60°	1155.9	1161.6
62.5°	1055.5	1055.5
65°	949.4	953.1
67.5°	839.4	848.9
70°	727.7	729.6
72.5°	617.8	617.8
75°	504.1	505.9
77.5°	396.1	396.1
80°	293.7	295.7
82.5°	202.8	206.5
85°	127.0	127.0
87.5°	58.7	53.1
90°	11.2	11.2
92.5°	44.9	36.0
95°	156.8	129.8
97.5°	375.8	324.3
100°	541.5	480.1
102.5°	704.4	651.8
105°	912.2	883.9
107.5°	1048.2	1055.1
110°	1100.1	1129.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1104.8	1149.9
115°	1075.4	1138.2
117.5°	1013.4	1082.9
120°	963.3	1030.9
122.5°	914.6	981.1
125°	845.0	906.4
127.5°	782.5	834.3
130°	745.6	793.4
132.5°	712.2	755.0
135°	666.4	703.3
137.5°	629.7	659.9
140°	604.3	632.6
142.5°	583.5	607.8
145°	552.2	570.6
147.5°	528.1	543.3
150°	513.0	525.3
152.5°	500.0	509.4
155°	485.2	491.3
157.5°	473.4	477.7
160°	466.3	468.8
162.5°	461.7	464.1
165°	455.1	457.6
167.5°	450.4	451.4
170°	449.0	449.0
172.5°	445.5	444.6
175°	443.4	443.4
177.5°	441.6	440.5
180°	440.5	440.5



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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	6.48	7.50	7.32	8.38	9.47	19.64	20.67	20.49	21.54	22.63
	3H	7.20	8.12	8.05	9.00	10.12	21.49	22.41	22.34	23.29	24.41
	4H	7.50	8.38	8.37	9.26	10.39	22.14	23.01	23.01	23.90	25.03
	6H	7.76	8.57	8.65	9.46	10.61	22.57	23.38	23.46	24.28	25.42
	8H	7.83	8.60	8.73	9.52	10.66	22.70	23.47	23.59	24.38	25.52
	12H	7.86	8.59	8.76	9.50	10.67	22.77	23.50	23.67	24.41	25.58
4H	2H	13.70	14.58	14.58	15.47	16.60	19.94	20.81	20.81	21.70	22.83
	3H	15.29	16.02	16.18	16.94	18.09	21.99	22.73	22.88	23.64	24.79
	4H	15.39	16.06	16.29	16.97	18.15	22.76	23.43	23.66	24.35	25.52
	6H	15.41	15.99	16.33	16.93	18.10	23.31	23.89	24.22	24.83	26.00
	8H	15.39	15.93	16.31	16.87	18.06	23.47	24.02	24.39	24.95	26.14
	12H	15.36	15.85	16.30	16.80	17.99	23.57	24.06	24.51	25.01	26.21
8H	4H	16.85	17.39	17.76	18.32	19.51	22.84	23.38	23.76	24.31	25.50
	6H	17.10	17.55	18.04	18.52	19.71	23.47	23.92	24.42	24.90	26.08
	8H	17.12	17.52	18.07	18.48	19.68	23.69	24.09	24.65	25.06	26.26
	12H	17.09	17.44	18.05	18.40	19.65	23.84	24.19	24.80	25.15	26.40
12H	4H	17.00	17.49	17.93	18.44	19.63	22.80	23.29	23.74	24.24	25.43
	6H	17.36	17.76	18.31	18.72	19.92	23.46	23.86	24.41	24.82	26.03
	8H	17.43	17.78	18.39	18.74	20.00	23.69	24.04	24.65	25.00	26.26