

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: P936808

Luminaire Tested: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936808
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-B50-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

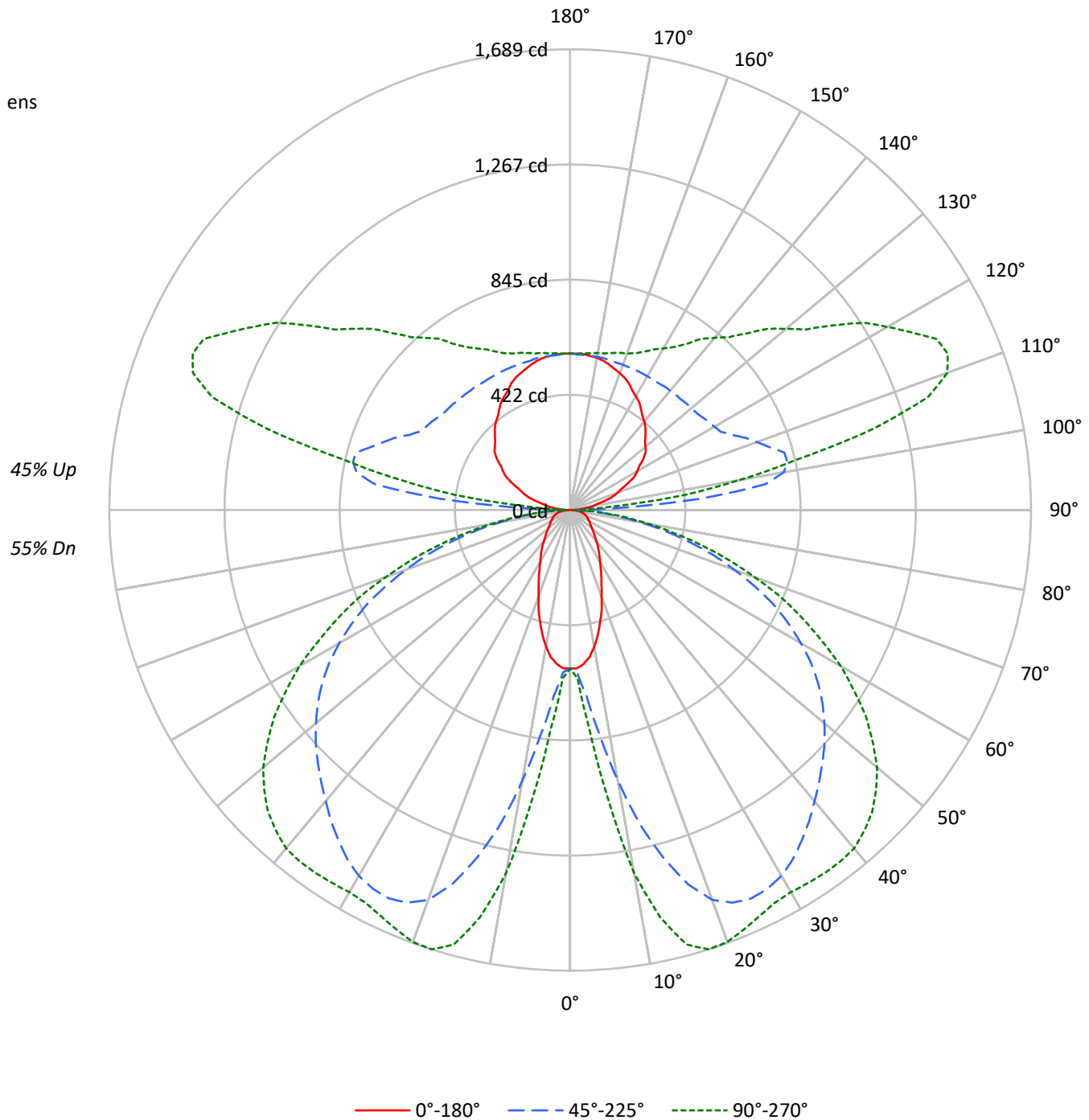
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8215.5 lumens
Efficiency: N/A
Efficacy: 112.9 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 (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

TEST NUMBER: P936808
CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P936808

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	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°	2695	2695	2695
5°	2633	3115	3623
10°	2388	4541	6007
15°	2030	5933	7253
20°	1652	6875	7392
25°	1379	7195	7242
30°	1163	7241	7228
35°	1028	7120	7415
40°	895	6964	7608
45°	811	6850	7638
50°	744	6747	7511
55°	713	6596	7179
60°	729	6306	6653
65°	759	5866	5930
70°	808	5116	5010
75°	896	4171	3910
80°	978	2893	2634
85°	871	1535	1349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7638 cd/sqm



TEST NUMBER: P936808

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	0.9
10°-20°	333.1	4.1
20°-30°	582.6	7.1
30°-40°	750.0	9.1
40°-50°	837.7	10.2
50°-60°	802.3	9.8
60°-70°	635.8	7.7
70°-80°	373.9	4.6
80°-90°	106.1	1.3
90°-100°	279.6	3.4
100°-110°	735.2	8.9
110°-120°	762.3	9.3
120°-130°	611.4	7.4
130°-140°	479.8	5.8
140°-150°	368.3	4.5
150°-160°	265.2	3.2
160°-170°	162.3	2.0
170°-180°	54.8	0.7
0°-30°	990.8	12.1
0°-40°	1740.8	21.2
0°-60°	3380.8	41.2
0°-90°	4496.6	54.7
90°-120°	1777.1	21.6
90°-150°	3236.6	39.4
90°-180°	3719.0	45.3
0°-180°	8215.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	566	607	684	773	801	52
15°	424	783	1319	1599	1650	118
25°	271	887	1571	1640	1642	125
35°	183	848	1480	1564	1625	114
45°	125	676	1308	1498	1566	97
55°	90	430	1110	1289	1324	82
65°	71	228	824	926	940	70
75°	52	140	452	497	499	55
85°	19	43	112	123	125	20
90°	4	11	29	15	15	4
95°	37	145	482	248	169	41
105°	132	201	813	1234	1151	140
115°	235	286	651	1299	1482	232
125°	327	367	592	1001	1180	291
135°	390	429	574	808	916	302
145°	452	481	566	689	743	283
155°	511	526	566	622	640	235
165°	552	559	566	589	596	156
175°	574	574	570	578	578	54
180°	574	574	574	574	574	



TEST NUMBER: P936808

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9
2.5°	580.9	580.9	584.7	586.6	590.3	592.2	595.9	599.6	610.8	612.7	616.4
5°	566.0	573.5	597.8	607.1	633.3	668.7	683.7	708.0	758.4	773.4	782.7
7.5°	543.6	560.4	620.2	635.1	700.5	793.9	833.1	885.4	965.8	1005.0	1036.7
10°	508.1	543.6	650.1	685.6	792.0	934.0	1006.9	1079.8	1201.2	1255.4	1275.9
12.5°	468.9	526.8	681.8	730.4	883.6	1091.0	1178.8	1259.1	1397.4	1470.2	1481.4
15°	424.0	502.5	711.7	782.7	980.7	1221.8	1318.9	1417.9	1546.8	1599.1	1612.2
17.5°	384.8	483.8	739.7	814.4	1055.4	1339.4	1438.5	1520.6	1625.3	1660.7	1670.1
20°	336.2	453.9	758.4	855.5	1134.0	1425.4	1520.6	1584.2	1655.1	1677.6	1681.3
22.5°	300.7	422.2	769.6	870.5	1186.3	1477.7	1558.0	1608.4	1657.0	1664.5	1666.3
25°	270.9	386.7	767.7	887.3	1231.1	1509.4	1571.1	1608.4	1636.5	1640.2	1640.2
27.5°	242.8	347.4	760.3	891.0	1264.7	1516.9	1565.5	1591.6	1604.7	1612.2	1612.2
30°	218.6	310.1	741.6	883.6	1279.7	1509.4	1548.7	1561.7	1574.8	1586.0	1591.6
32.5°	199.9	274.6	713.6	868.6	1281.5	1490.8	1518.8	1526.2	1544.9	1571.1	1580.4
35°	183.1	239.1	681.8	848.1	1270.3	1460.9	1479.5	1487.0	1524.4	1563.6	1576.7
37.5°	166.3	213.0	640.7	812.6	1253.5	1425.4	1438.5	1451.5	1509.4	1556.1	1571.1
40°	149.4	190.5	592.2	773.4	1227.4	1382.4	1393.6	1414.2	1490.8	1544.9	1559.9
42.5°	136.4	171.9	539.9	732.3	1193.7	1333.8	1350.7	1380.5	1468.3	1526.2	1543.1
45°	125.2	153.2	483.8	676.2	1150.8	1283.4	1307.7	1348.8	1442.2	1498.2	1513.2
47.5°	113.9	140.1	425.9	618.3	1104.1	1233.0	1264.7	1311.4	1406.7	1460.9	1473.9
50°	104.6	127.0	368.0	556.7	1053.6	1178.8	1216.2	1264.7	1361.9	1412.3	1429.1
52.5°	97.1	115.8	313.8	495.0	995.6	1122.8	1165.7	1216.2	1307.7	1356.3	1367.5
55°	89.7	106.5	267.1	429.6	935.9	1063.0	1109.7	1158.3	1247.9	1289.0	1296.5
57.5°	85.9	99.0	227.9	368.0	872.4	995.6	1047.9	1092.9	1176.9	1208.7	1216.2
60°	80.3	93.4	198.0	315.7	803.2	932.1	977.0	1021.8	1092.9	1119.0	1124.6
62.5°	74.7	89.7	175.6	265.3	732.3	857.4	902.2	943.3	1003.1	1021.8	1029.3
65°	71.0	85.9	158.8	227.9	659.4	779.0	823.8	859.3	907.8	926.5	930.3
67.5°	67.2	82.2	145.7	196.1	586.6	700.5	734.1	767.7	805.1	823.8	825.7
70°	61.6	78.5	134.5	173.7	511.8	610.8	638.9	674.3	704.2	713.6	719.2
72.5°	57.9	72.9	127.0	156.9	435.2	524.9	551.1	571.6	597.8	607.1	607.1
75°	52.3	65.4	119.6	140.1	356.8	429.6	452.1	472.6	493.2	496.9	491.3
77.5°	46.7	57.9	102.7	117.7	278.3	340.0	358.7	369.9	386.7	390.4	392.3
80°	39.2	50.4	80.3	91.5	201.7	250.3	263.4	272.7	287.7	287.7	291.4
82.5°	29.9	39.2	57.9	65.4	136.4	171.9	183.1	188.7	198.0	198.0	198.0
85°	18.7	24.3	37.4	43.0	82.2	104.6	112.1	113.9	121.4	123.3	123.3
87.5°	9.3	13.1	24.3	26.2	43.0	54.2	54.2	57.9	57.9	56.0	54.2
90°	3.8	6.9	10.0	10.7	16.9	25.1	29.2	26.0	19.5	14.7	14.7
92.5°	15.4	41.6	67.8	74.3	104.5	144.7	164.8	144.4	103.7	73.1	70.2
95°	37.0	84.9	132.8	144.8	257.0	406.8	481.7	429.8	326.2	248.4	239.6
97.5°	63.9	106.1	148.4	159.0	346.2	595.9	720.8	688.0	622.4	573.3	556.5
100°	84.7	123.0	161.3	170.9	378.7	655.8	794.3	796.7	801.5	805.0	785.0
102.5°	102.5	138.2	173.9	182.9	393.6	674.6	815.1	856.9	940.4	1002.9	985.8
105°	132.4	162.7	193.1	200.6	404.7	676.8	812.8	906.4	1093.6	1234.0	1224.8
107.5°	163.3	191.5	219.7	226.8	406.7	646.6	766.5	897.1	1158.3	1354.1	1356.4
110°	184.0	209.5	235.1	241.4	403.7	619.9	728.1	874.0	1165.9	1384.8	1394.5



TEST NUMBER: P936808

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	204.5	228.7	253.0	259.1	403.8	596.6	693.0	842.4	1141.2	1365.2	1380.0
115°	235.3	257.7	280.1	285.7	407.5	569.9	651.1	795.0	1082.8	1298.6	1319.0
117.5°	265.6	286.0	306.4	311.5	415.1	553.1	622.1	752.1	1011.8	1206.6	1229.2
120°	283.4	302.5	321.8	326.5	421.2	547.5	610.6	729.3	966.6	1144.6	1166.6
122.5°	300.7	320.0	339.3	344.2	430.0	544.5	601.8	708.6	922.4	1082.7	1104.4
125°	327.3	344.8	362.5	366.9	442.0	542.1	592.2	682.9	864.5	1000.7	1020.7
127.5°	348.8	366.6	384.3	388.8	453.9	540.7	584.0	662.0	817.9	934.8	951.7
130°	360.3	379.5	398.7	403.5	462.6	541.5	580.9	650.3	789.1	893.2	908.8
132.5°	372.3	391.4	410.7	415.4	469.7	542.1	578.3	640.4	764.7	857.8	871.7
135°	390.0	407.5	424.9	429.3	477.4	541.5	573.7	625.7	729.7	807.7	819.8
137.5°	408.2	425.4	442.7	447.0	488.9	544.9	572.9	616.9	704.9	770.8	780.6
140°	423.1	439.1	455.0	459.0	496.0	545.5	570.2	608.2	684.2	741.1	750.3
142.5°	434.7	449.3	464.1	467.7	501.9	547.4	570.2	603.6	670.3	720.4	728.3
145°	452.4	465.2	478.1	481.3	509.7	547.5	566.4	593.7	648.3	689.2	695.2
147.5°	470.1	482.6	495.1	498.2	520.9	551.2	566.4	587.9	630.7	663.0	667.9
150°	481.7	493.0	504.3	507.1	526.9	553.2	566.4	584.5	620.8	648.0	652.0
152.5°	493.6	502.2	510.7	512.9	530.7	554.5	566.4	581.9	612.8	636.1	639.1
155°	511.3	517.6	524.0	525.6	539.2	557.3	566.4	578.7	603.3	621.8	623.8
157.5°	524.3	530.5	536.7	538.3	547.6	560.1	566.4	575.9	595.1	609.4	610.8
160°	533.2	538.1	542.8	544.1	551.5	561.4	566.4	574.6	590.9	603.3	604.1
162.5°	542.1	545.7	549.3	550.2	555.6	562.8	566.4	573.3	587.2	597.6	598.3
165°	551.7	555.0	558.2	559.0	561.4	564.7	566.4	571.3	581.2	588.7	589.5
167.5°	560.6	562.1	563.7	564.0	566.1	568.8	570.2	573.5	580.0	584.9	585.2
170°	566.4	567.9	569.5	569.8	569.9	570.1	570.2	573.5	580.0	584.9	584.9
172.5°	569.5	569.8	570.1	570.2	570.2	570.2	570.2	572.8	578.0	581.8	581.5
175°	573.7	573.7	573.7	573.7	572.5	571.0	570.2	571.8	575.1	577.5	577.5
177.5°	573.7	573.7	573.7	573.7	572.7	571.5	571.0	572.3	574.8	576.7	576.4
180°	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7



TEST NUMBER: P936808

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	580.9	580.9
2.5°	620.2	616.4
5°	797.6	801.4
7.5°	1074.2	1072.3
10°	1335.7	1352.5
12.5°	1526.2	1530.0
15°	1642.1	1649.5
17.5°	1686.9	1688.8
20°	1688.8	1685.0
22.5°	1668.2	1664.5
25°	1643.9	1642.1
27.5°	1621.5	1623.4
30°	1612.2	1617.8
32.5°	1612.2	1621.5
35°	1615.9	1625.3
37.5°	1614.0	1625.3
40°	1606.6	1619.6
42.5°	1586.0	1595.4
45°	1554.3	1565.5
47.5°	1513.2	1520.6
50°	1460.9	1468.3
52.5°	1395.5	1397.4
55°	1317.0	1324.5
57.5°	1233.0	1234.8
60°	1139.6	1145.2
62.5°	1040.5	1040.5
65°	935.9	939.6
67.5°	827.5	836.9
70°	717.3	719.2
72.5°	609.0	609.0
75°	496.9	498.8
77.5°	390.4	390.4
80°	289.5	291.4
82.5°	199.9	203.6
85°	125.2	125.2
87.5°	57.9	52.3
90°	14.7	14.7
92.5°	58.6	47.0
95°	204.3	169.1
97.5°	489.4	422.4
100°	705.2	625.2
102.5°	917.4	848.9
105°	1188.0	1151.2
107.5°	1365.2	1374.1
110°	1432.8	1471.1



TEST NUMBER: P936808

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1438.8	1497.7
115°	1400.6	1482.3
117.5°	1319.8	1410.3
120°	1254.5	1342.5
122.5°	1191.1	1277.9
125°	1100.5	1180.5
127.5°	1019.1	1086.5
130°	971.1	1033.4
132.5°	927.6	983.3
135°	867.9	916.0
137.5°	820.1	859.4
140°	787.1	823.9
142.5°	759.9	791.6
145°	719.2	743.1
147.5°	687.8	707.7
150°	668.1	684.2
152.5°	651.3	663.4
155°	631.9	639.9
157.5°	616.5	622.1
160°	607.4	610.6
162.5°	601.4	604.5
165°	592.7	596.0
167.5°	586.6	588.0
170°	584.9	584.9
172.5°	580.3	579.1
175°	577.5	577.5
177.5°	575.1	573.7
180°	573.7	573.7



TEST NUMBER: P936808

CATALOG NUMBER: SQ4-FB-050U-075D-B50-1D-UNV-STD-W-8

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	4.87	5.82	5.78	6.75	7.95	18.05	19.00	18.96	19.93	21.13
	3H	5.58	6.44	6.50	7.38	8.60	19.90	20.75	20.81	21.69	22.91
	4H	5.89	6.69	6.82	7.64	8.87	20.55	21.35	21.48	22.30	23.53
	6H	6.14	6.89	7.09	7.84	9.08	20.98	21.73	21.93	22.68	23.92
	8H	6.21	6.92	7.16	7.89	9.14	21.10	21.81	22.06	22.78	24.03
	12H	6.23	6.91	7.19	7.87	9.14	21.17	21.85	22.13	22.82	24.09
4H	2H	12.10	12.91	13.04	13.85	15.08	18.33	19.14	19.27	20.09	21.32
	3H	13.67	14.35	14.62	15.33	16.57	20.39	21.07	21.34	22.04	23.29
	4H	13.77	14.39	14.73	15.36	16.63	21.16	21.78	22.12	22.75	24.02
	6H	13.79	14.32	14.76	15.32	16.59	21.70	22.24	22.68	23.23	24.50
	8H	13.77	14.27	14.74	15.25	16.54	21.87	22.37	22.84	23.36	24.64
	12H	13.73	14.18	14.72	15.18	16.47	21.97	22.42	22.96	23.42	24.71
8H	4H	15.22	15.72	16.20	16.71	18.00	21.23	21.73	22.20	22.72	24.00
	6H	15.47	15.89	16.47	16.91	18.20	21.86	22.28	22.86	23.31	24.59
	8H	15.49	15.86	16.50	16.87	18.17	22.08	22.45	23.09	23.47	24.77
	12H	15.46	15.78	16.48	16.80	18.14	22.23	22.55	23.24	23.56	24.91
12H	4H	15.37	15.82	16.37	16.83	18.12	21.18	21.64	22.18	22.64	23.93
	6H	15.73	16.10	16.74	17.11	18.41	21.84	22.21	22.85	23.23	24.53
	8H	15.80	16.13	16.82	17.14	18.48	22.08	22.40	23.09	23.41	24.76