

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: P936996

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936996
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

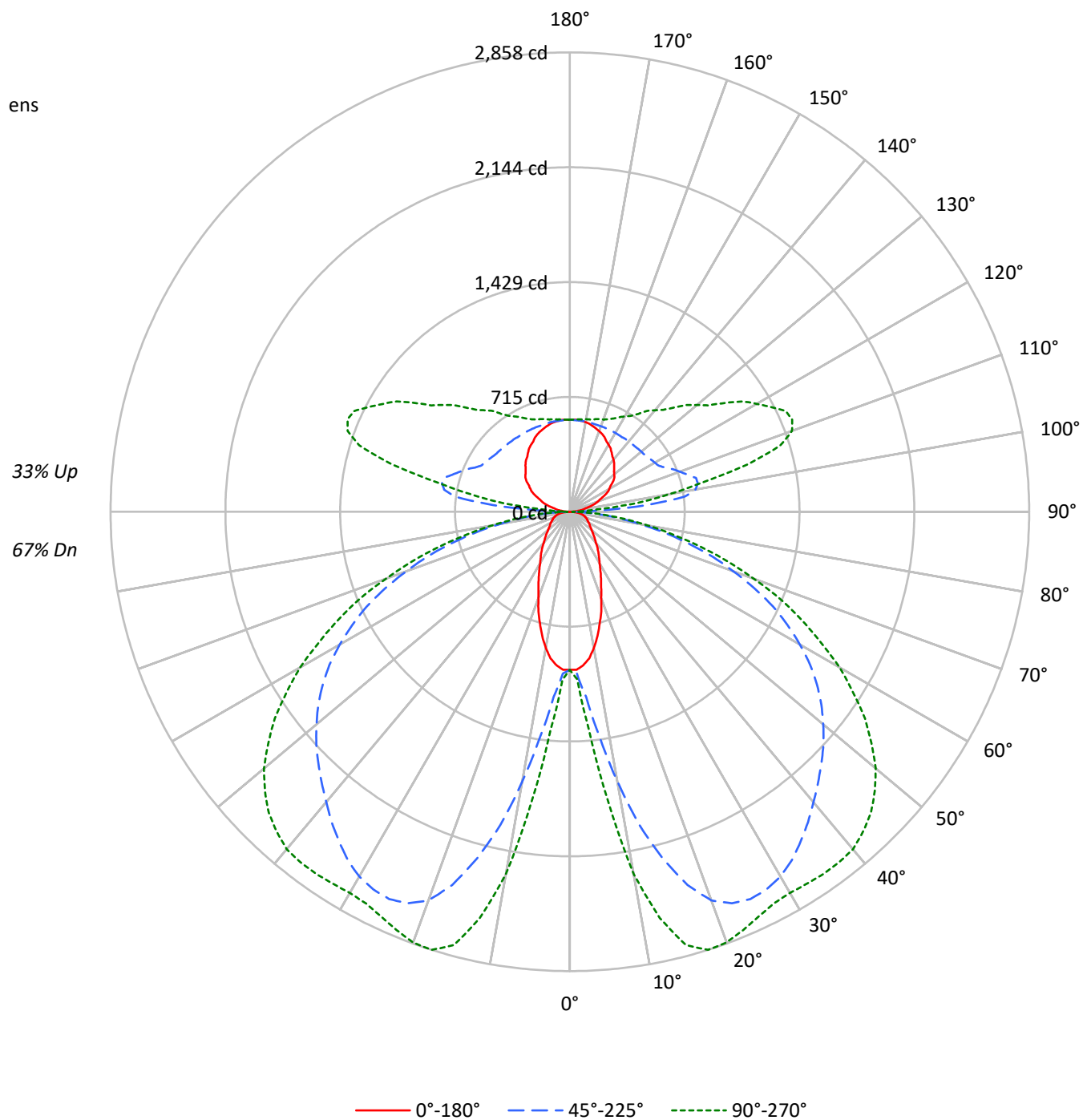
Lumens per Lamp: N/A
Luminaire Lumens: 11326.7 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 112
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

TEST NUMBER: P936996

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-5000K

Luminous Intensity Polar Plot



TEST NUMBER: P936996

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4561	4561	4561
5°	4456	5272	6131
10°	4042	7685	10165
15°	3435	10040	12274
20°	2797	11635	12509
25°	2333	12176	12254
30°	1967	12252	12231
35°	1739	12049	12548
40°	1516	11785	12875
45°	1373	11591	12925
50°	1259	11417	12711
55°	1206	11162	12147
60°	1234	10671	11258
65°	1284	9926	10035
70°	1368	8656	8478
75°	1516	7058	6617
80°	1657	4895	4458
85°	1472	2597	2282

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12925 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.2	1.1
10°-20°	563.6	5.0
20°-30°	985.9	8.7
30°-40°	1269.1	11.2
40°-50°	1417.6	12.5
50°-60°	1357.7	12.0
60°-70°	1076.0	9.5
70°-80°	632.7	5.6
80°-90°	178.0	1.6
90°-100°	279.6	2.5
100°-110°	735.2	6.5
110°-120°	762.3	6.7
120°-130°	611.4	5.4
130°-140°	479.8	4.2
140°-150°	368.3	3.3
150°-160°	265.2	2.3
160°-170°	162.3	1.4
170°-180°	54.8	0.5
0°-30°	1676.7	14.8
0°-40°	2945.8	26.0
0°-60°	5721.1	50.5
0°-90°	7607.8	67.2
90°-120°	1777.1	15.7
90°-150°	3236.6	28.6
90°-180°	3719.0	32.8
0°-180°	11326.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	958	1027	1157	1309	1356	88
15°	718	1324	2232	2706	2791	200
25°	458	1502	2659	2776	2779	211
35°	310	1435	2504	2646	2750	193
45°	212	1144	2213	2535	2649	164
55°	152	727	1878	2181	2241	138
65°	120	386	1394	1568	1590	119
75°	88	237	765	841	844	93
85°	32	73	190	209	212	34
90°	4	11	29	15	15	5
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	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1
2.5°	983.1	983.1	989.5	992.7	998.9	1002.1	1008.4	1014.8	1033.8	1036.9	1043.2
5°	957.8	970.5	1011.6	1027.4	1071.7	1131.7	1157.0	1198.1	1283.4	1308.7	1324.5
7.5°	919.9	948.4	1049.5	1074.8	1185.4	1343.6	1409.9	1498.4	1634.3	1700.7	1754.5
10°	859.8	919.9	1100.1	1160.1	1340.4	1580.6	1703.9	1827.2	2032.7	2124.4	2159.1
12.5°	793.4	891.5	1153.9	1236.1	1495.2	1846.1	1994.7	2130.6	2364.6	2487.9	2506.9
15°	717.6	850.4	1204.4	1324.5	1659.6	2067.4	2231.8	2399.4	2617.5	2706.0	2728.1
17.5°	651.2	818.7	1251.8	1378.3	1786.1	2266.6	2434.1	2573.3	2750.3	2810.3	2826.1
20°	569.0	768.2	1283.4	1447.8	1918.9	2412.1	2573.3	2680.7	2800.9	2838.8	2845.1
22.5°	508.9	714.4	1302.5	1473.1	2007.4	2500.5	2636.5	2721.8	2804.0	2816.7	2819.8
25°	458.4	654.4	1299.3	1501.6	2083.3	2554.3	2658.6	2721.8	2769.2	2775.6	2775.6
27.5°	411.0	588.0	1286.6	1507.9	2140.2	2566.9	2649.1	2693.4	2715.5	2728.1	2728.1
30°	369.9	524.7	1255.0	1495.2	2165.5	2554.3	2620.6	2642.8	2664.9	2683.8	2693.4
32.5°	338.3	464.7	1207.6	1469.9	2168.6	2522.6	2570.1	2582.7	2614.4	2658.6	2674.4
35°	309.8	404.6	1153.9	1435.2	2149.6	2472.1	2503.7	2516.3	2579.5	2645.9	2668.1
37.5°	281.3	360.3	1084.3	1375.1	2121.2	2412.1	2434.1	2456.2	2554.3	2633.3	2658.6
40°	252.9	322.4	1002.1	1308.7	2076.9	2339.3	2358.3	2393.0	2522.6	2614.4	2639.6
42.5°	230.8	290.8	913.6	1239.2	2020.1	2257.1	2285.6	2336.1	2484.7	2582.7	2611.2
45°	211.8	259.2	818.7	1144.3	1947.3	2171.7	2212.8	2282.4	2440.4	2535.3	2560.6
47.5°	192.9	237.0	720.8	1046.4	1868.3	2086.4	2140.2	2219.2	2380.4	2472.1	2494.2
50°	177.0	215.0	622.8	942.0	1782.9	1994.7	2058.0	2140.2	2304.6	2389.9	2418.3
52.5°	164.4	196.0	531.1	837.7	1684.9	1899.8	1972.6	2058.0	2212.8	2295.0	2314.0
55°	151.8	180.2	452.1	727.1	1583.8	1798.7	1877.8	1960.0	2111.7	2181.3	2193.9
57.5°	145.4	167.6	385.6	622.8	1476.3	1684.9	1773.5	1849.3	1991.6	2045.3	2058.0
60°	135.9	158.0	335.1	534.2	1359.3	1577.4	1653.3	1729.2	1849.3	1893.6	1903.0
62.5°	126.5	151.8	297.2	448.9	1239.2	1451.0	1526.9	1596.4	1697.5	1729.2	1741.8
65°	120.1	145.4	268.7	385.6	1115.9	1318.2	1394.1	1454.1	1536.3	1568.0	1574.3
67.5°	113.8	139.1	246.6	331.9	992.7	1185.4	1242.3	1299.3	1362.5	1394.1	1397.3
70°	104.3	132.8	227.6	294.0	866.2	1033.8	1081.1	1141.2	1191.8	1207.6	1217.1
72.5°	98.0	123.3	215.0	265.5	736.6	888.3	932.6	967.3	1011.6	1027.4	1027.4
75°	88.5	110.7	202.3	237.0	603.8	727.1	765.0	799.8	834.5	840.9	831.4
77.5°	79.0	98.0	173.9	199.1	471.0	575.3	606.9	626.0	654.4	660.7	663.9
80°	66.4	85.4	135.9	154.9	341.4	423.6	445.7	461.6	486.8	486.8	493.2
82.5°	50.6	66.4	98.0	110.7	230.8	290.8	309.8	319.2	335.1	335.1	335.1
85°	31.6	41.1	63.2	72.7	139.1	177.0	189.7	192.9	205.5	208.7	208.7
87.5°	15.8	22.1	41.1	44.3	72.7	91.7	91.7	98.0	98.0	94.8	91.7
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

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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

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	983.1	983.1
2.5°	1049.5	1043.2
5°	1349.8	1356.2
7.5°	1817.7	1814.6
10°	2260.3	2288.8
12.5°	2582.7	2589.0
15°	2778.7	2791.4
17.5°	2854.6	2857.8
20°	2857.8	2851.4
22.5°	2823.0	2816.7
25°	2781.9	2778.7
27.5°	2743.9	2747.1
30°	2728.1	2737.6
32.5°	2728.1	2743.9
35°	2734.5	2750.3
37.5°	2731.3	2750.3
40°	2718.7	2740.8
42.5°	2683.8	2699.7
45°	2630.1	2649.1
47.5°	2560.6	2573.3
50°	2472.1	2484.7
52.5°	2361.4	2364.6
55°	2228.6	2241.3
57.5°	2086.4	2089.5
60°	1928.3	1937.9
62.5°	1760.8	1760.8
65°	1583.8	1590.1
67.5°	1400.4	1416.2
70°	1213.9	1217.1
72.5°	1030.6	1030.6
75°	840.9	844.1
77.5°	660.7	660.7
80°	490.0	493.2
82.5°	338.3	344.6
85°	211.8	211.8
87.5°	98.0	88.5
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



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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

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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	7.70	8.80	8.49	9.62	10.62	20.88	21.98	21.67	22.80	23.80
	3H	8.43	9.42	9.23	10.24	11.27	22.74	23.73	23.54	24.55	25.58
	4H	8.74	9.67	9.55	10.50	11.54	23.40	24.33	24.21	25.16	26.20
	6H	9.00	9.86	9.83	10.70	11.76	23.84	24.70	24.67	25.54	26.60
	8H	9.07	9.90	9.91	10.76	11.81	23.97	24.79	24.80	25.65	26.71
	12H	9.10	9.89	9.94	10.74	11.82	24.04	24.83	24.89	25.68	26.77
4H	2H	14.95	15.88	15.77	16.72	17.75	21.19	22.12	22.01	22.95	23.99
	3H	16.54	17.32	17.37	18.19	19.24	23.25	24.04	24.09	24.90	25.96
	4H	16.64	17.36	17.49	18.22	19.30	24.03	24.75	24.88	25.61	26.69
	6H	16.67	17.29	17.53	18.18	19.26	24.58	25.21	25.45	26.09	27.18
	8H	16.65	17.23	17.52	18.11	19.21	24.75	25.33	25.62	26.22	27.32
	12H	16.62	17.14	17.51	18.05	19.15	24.86	25.38	25.74	26.28	27.39
8H	4H	18.11	18.69	18.97	19.57	20.67	24.11	24.69	24.98	25.57	26.67
	6H	18.36	18.84	19.25	19.77	20.87	24.75	25.23	25.65	26.16	27.26
	8H	18.38	18.81	19.29	19.73	20.84	24.97	25.40	25.88	26.32	27.44
	12H	18.36	18.74	19.27	19.65	20.82	25.13	25.51	26.04	26.42	27.59
12H	4H	18.26	18.79	19.15	19.69	20.80	24.08	24.60	24.96	25.50	26.61
	6H	18.62	19.05	19.53	19.97	21.09	24.74	25.17	25.64	26.08	27.20
	8H	18.70	19.08	19.61	19.99	21.16	24.98	25.36	25.89	26.27	27.44