

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: P936501

Luminaire Tested: SQ4-FB-025U-100D-B40-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936501
REPORT IS A COMBINATION OF REPORTS P933431 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-025U-100D-B40-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

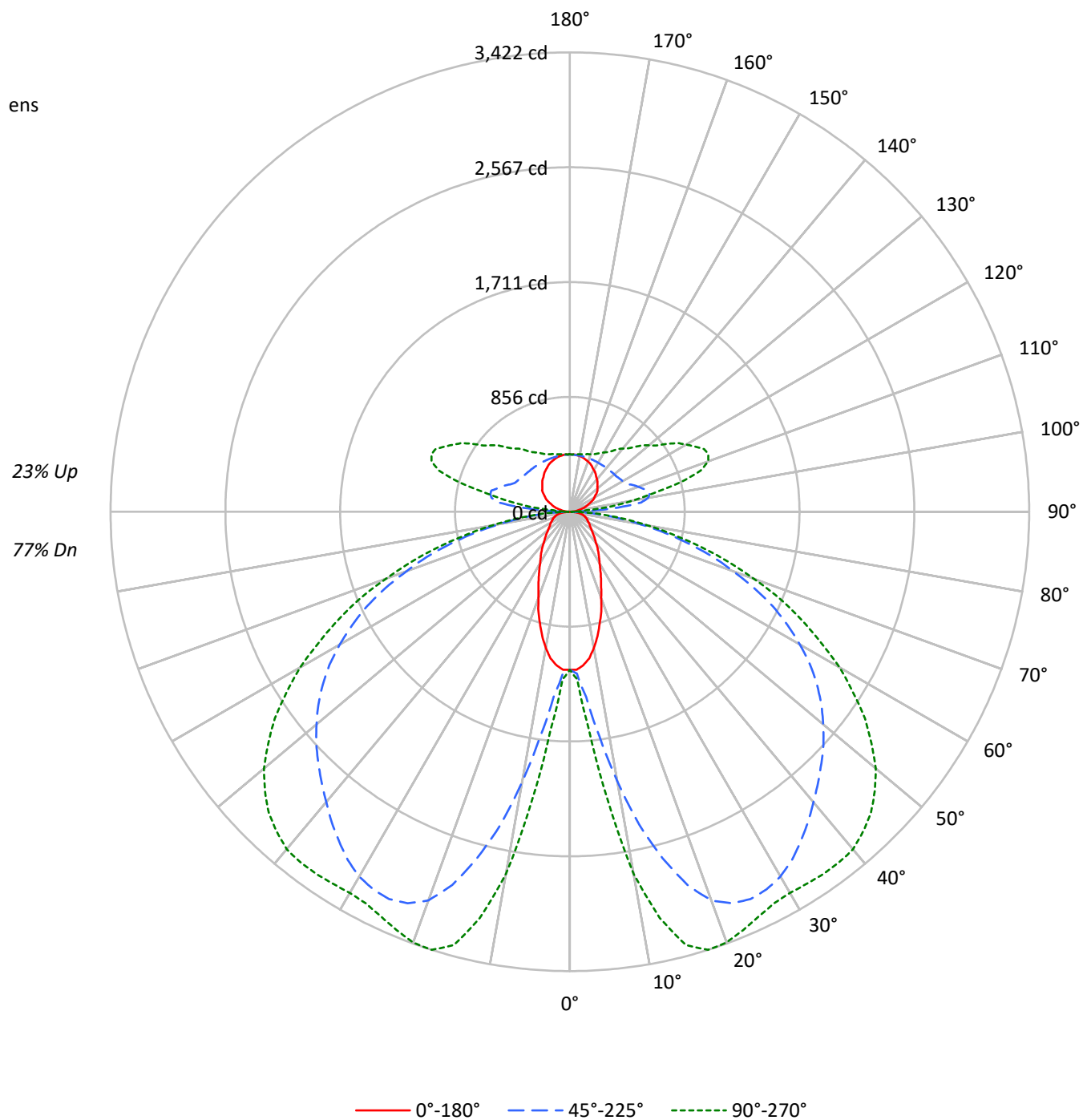
Lumens per Lamp: N/A
Luminaire Lumens: 11880.2 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 116.4
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	19
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3641	3641	3641
5°	3559	4210	4894
10°	3229	6138	8114
15°	2745	8021	9798
20°	2236	9297	9985
25°	1866	9731	9782
30°	1574	9795	9764
35°	1392	9635	10016
40°	1214	9426	10277
45°	1100	9274	10317
50°	1010	9138	10147
55°	968	8938	9697
60°	992	8549	8987
65°	1034	7956	8011
70°	1104	6944	6768
75°	1229	5666	5282
80°	1352	3934	3559
85°	1225	2091	1821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10317 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	1.3
10°-20°	674.9	5.7
20°-30°	1180.5	9.9
30°-40°	1519.6	12.8
40°-50°	1697.4	14.3
50°-60°	1625.7	13.7
60°-70°	1288.4	10.8
70°-80°	757.6	6.4
80°-90°	212.1	1.8
90°-100°	208.4	1.8
100°-110°	547.9	4.6
110°-120°	568.1	4.8
120°-130°	455.7	3.8
130°-140°	357.6	3.0
140°-150°	274.5	2.3
150°-160°	197.7	1.7
160°-170°	120.9	1.0
170°-180°	40.9	0.3
0°-30°	2007.7	16.9
0°-40°	3527.3	29.7
0°-60°	6850.4	57.7
0°-90°	9108.5	76.7
90°-120°	1324.5	11.1
90°-150°	2412.2	20.3
90°-180°	2772.0	23.3
0°-180°	11880.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1147	1230	1385	1567	1624	106
15°	859	1586	2672	3240	3342	239
25°	549	1798	3183	3323	3327	253
35°	371	1718	2998	3168	3293	232
45°	254	1370	2650	3036	3172	196
55°	182	871	2248	2612	2684	166
65°	144	462	1669	1877	1904	143
75°	106	284	916	1007	1011	111
85°	38	87	227	250	254	40
90°	3	8	22	11	11	5
95°	28	108	359	185	126	31
105°	99	150	606	920	858	105
115°	175	213	485	968	1105	173
125°	244	274	441	746	880	217
135°	291	320	428	602	683	225
145°	337	359	422	514	554	211
155°	381	392	422	464	477	175
165°	411	417	422	439	444	116
175°	428	428	425	430	430	41
180°	428	428	428	428	428	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2
2.5°	1177.2	1177.2	1184.8	1188.6	1196.1	1200.0	1207.5	1215.0	1237.8	1241.6	1249.1
5°	1147.0	1162.0	1211.3	1230.2	1283.2	1355.1	1385.4	1434.6	1536.8	1567.1	1586.0
7.5°	1101.5	1135.6	1256.7	1287.0	1419.4	1608.7	1688.2	1794.2	1957.0	2036.4	2100.8
10°	1029.6	1101.5	1317.2	1389.1	1605.0	1892.6	2040.3	2187.9	2433.9	2543.6	2585.3
12.5°	950.1	1067.4	1381.6	1480.1	1790.4	2210.5	2388.5	2551.3	2831.4	2979.0	3001.7
15°	859.2	1018.2	1442.1	1586.0	1987.3	2475.6	2672.4	2873.0	3134.2	3240.1	3266.7
17.5°	779.8	980.4	1499.0	1650.3	2138.6	2714.0	2914.7	3081.2	3293.1	3365.0	3384.0
20°	681.3	919.9	1536.8	1733.6	2297.6	2888.1	3081.2	3209.9	3353.7	3399.1	3406.7
22.5°	609.4	855.5	1559.5	1763.9	2403.6	2994.1	3156.8	3259.1	3357.5	3372.7	3376.4
25°	548.8	783.6	1555.7	1798.0	2494.5	3058.5	3183.4	3259.1	3315.9	3323.4	3323.4
27.5°	492.1	704.0	1540.6	1805.5	2562.6	3073.6	3172.0	3225.0	3251.5	3266.7	3266.7
30°	442.8	628.4	1502.7	1790.4	2592.9	3058.5	3137.9	3164.5	3190.9	3213.7	3225.0
32.5°	405.0	556.4	1446.0	1760.2	2596.6	3020.7	3077.4	3092.6	3130.4	3183.4	3202.3
35°	370.9	484.5	1381.6	1718.5	2573.9	2960.0	2997.9	3013.0	3088.8	3168.2	3194.8
37.5°	336.9	431.6	1298.3	1646.6	2539.9	2888.1	2914.7	2941.1	3058.5	3153.1	3183.4
40°	302.8	386.1	1200.0	1567.1	2486.9	2801.1	2823.7	2865.4	3020.7	3130.4	3160.7
42.5°	276.3	348.3	1094.0	1483.8	2418.7	2702.6	2736.7	2797.3	2975.2	3092.6	3126.6
45°	253.6	310.4	980.4	1370.2	2331.7	2600.5	2649.6	2732.9	2922.2	3035.8	3066.0
47.5°	230.9	283.9	863.0	1253.0	2237.1	2498.3	2562.6	2657.2	2850.3	2960.0	2986.6
50°	212.0	257.4	745.7	1128.0	2134.9	2388.5	2464.2	2562.6	2759.5	2861.7	2895.8
52.5°	196.8	234.6	635.9	1003.1	2017.5	2274.9	2362.0	2464.2	2649.6	2748.1	2770.8
55°	181.7	215.7	541.3	870.6	1896.4	2153.8	2248.5	2346.8	2528.6	2611.8	2626.9
57.5°	174.1	200.6	461.8	745.7	1767.7	2017.5	2123.5	2214.4	2384.7	2449.0	2464.2
60°	162.7	189.3	401.2	639.7	1627.6	1888.8	1979.7	2070.5	2214.4	2267.4	2278.7
62.5°	151.4	181.7	355.8	537.5	1483.8	1737.4	1828.3	1911.5	2032.7	2070.5	2085.6
65°	143.8	174.1	321.7	461.8	1336.2	1578.4	1669.2	1741.3	1839.6	1877.4	1885.1
67.5°	136.3	166.6	295.3	397.5	1188.6	1419.4	1487.6	1555.7	1631.4	1669.2	1673.1
70°	124.9	159.0	272.6	352.0	1037.1	1237.8	1294.6	1366.5	1427.1	1446.0	1457.3
72.5°	117.4	147.6	257.4	317.9	881.9	1063.7	1116.7	1158.3	1211.3	1230.2	1230.2
75°	106.0	132.5	242.3	283.9	722.9	870.6	916.0	957.7	999.3	1006.9	995.5
77.5°	94.6	117.4	208.2	238.5	564.0	688.9	726.8	749.5	783.6	791.1	794.9
80°	79.5	102.2	162.7	185.5	408.8	507.2	533.7	552.7	582.9	582.9	590.5
82.5°	60.5	79.5	117.4	132.5	276.3	348.3	370.9	382.3	401.2	401.2	401.2
85°	37.8	49.2	75.7	87.1	166.6	212.0	227.1	230.9	246.0	249.8	249.8
87.5°	18.9	26.5	49.2	53.0	87.1	109.7	109.7	117.4	117.4	113.5	109.7
90°	2.9	5.2	7.4	8.0	12.6	18.7	21.8	19.4	14.5	10.9	10.9
92.5°	11.5	30.9	50.5	55.4	77.8	107.8	122.8	107.6	77.3	54.5	52.3
95°	27.5	63.2	98.9	107.9	191.6	303.2	359.0	320.3	243.0	185.1	178.5
97.5°	47.7	79.2	110.7	118.5	258.0	444.2	537.2	512.7	463.9	427.3	414.8
100°	63.1	91.7	120.2	127.4	282.3	488.8	592.0	593.8	597.4	600.0	585.1
102.5°	76.3	102.9	129.6	136.3	293.4	502.8	607.5	638.6	700.8	747.5	734.7
105°	98.7	121.3	143.8	149.5	301.6	504.3	605.8	675.5	815.0	919.7	912.8
107.5°	121.7	142.7	163.8	169.0	303.1	481.9	571.3	668.6	863.2	1009.2	1010.9
110°	137.1	156.1	175.1	179.9	300.8	462.0	542.6	651.4	869.0	1032.2	1039.3

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	152.4	170.5	188.6	193.1	300.9	444.6	516.6	627.9	850.5	1017.6	1028.5
115°	175.3	192.1	208.8	213.0	303.7	424.7	485.2	592.5	807.0	967.9	983.1
117.5°	198.0	213.2	228.3	232.2	309.3	412.3	463.7	560.6	754.2	899.3	916.2
120°	211.2	225.5	239.8	243.3	313.9	408.0	455.1	543.5	720.5	853.1	869.5
122.5°	224.1	238.6	252.9	256.5	320.5	405.8	448.5	528.1	687.4	806.9	823.0
125°	243.9	257.1	270.3	273.5	329.5	404.1	441.3	508.9	644.2	745.8	760.7
127.5°	260.0	273.2	286.5	289.8	338.4	403.0	435.3	493.4	609.6	696.7	709.3
130°	268.5	282.9	297.2	300.7	344.9	403.6	433.0	484.8	588.2	665.7	677.4
132.5°	277.5	291.8	306.1	309.6	350.1	404.1	431.0	477.3	569.9	639.4	649.8
135°	290.7	303.7	316.7	319.9	355.8	403.7	427.6	466.3	543.9	602.0	611.0
137.5°	304.2	317.1	329.9	333.1	364.4	406.2	427.0	459.7	525.2	574.4	581.8
140°	315.3	327.2	339.1	342.1	369.7	406.5	425.0	453.2	509.9	552.4	559.2
142.5°	323.9	334.9	345.9	348.7	374.1	408.0	425.0	449.8	499.6	536.9	542.8
145°	337.2	346.8	356.3	358.7	379.8	408.0	422.1	442.5	483.1	513.6	518.1
147.5°	350.4	359.7	369.0	371.3	388.2	410.8	422.1	438.2	470.1	494.1	497.8
150°	359.0	367.4	375.8	377.9	392.6	412.3	422.1	435.7	462.7	482.9	485.9
152.5°	367.9	374.3	380.6	382.2	395.5	413.2	422.1	433.7	456.8	474.1	476.4
155°	381.0	385.7	390.5	391.6	401.8	415.3	422.1	431.3	449.7	463.5	465.0
157.5°	390.8	395.4	400.0	401.2	408.2	417.4	422.1	429.3	443.5	454.2	455.2
160°	397.5	401.0	404.6	405.5	411.0	418.4	422.1	428.2	440.4	449.6	450.2
162.5°	404.1	406.7	409.4	410.1	414.1	419.4	422.1	427.3	437.6	445.3	445.9
165°	411.2	413.6	416.1	416.7	418.5	420.9	422.1	425.8	433.2	438.7	439.3
167.5°	417.8	419.0	420.1	420.4	421.9	423.9	425.0	427.4	432.2	435.9	436.1
170°	422.1	423.3	424.4	424.7	424.8	424.9	425.0	427.4	432.2	435.9	435.9
172.5°	424.4	424.7	424.9	425.0	425.0	425.0	425.0	426.9	430.7	433.6	433.4
175°	427.6	427.6	427.6	427.6	426.7	425.5	425.0	426.2	428.6	430.4	430.4
177.5°	427.6	427.6	427.6	427.6	426.9	426.0	425.5	426.5	428.4	429.8	429.6
180°	427.6	427.6	427.6	427.6	427.6	427.6	427.6	427.6	427.6	427.6	427.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1177.2	1177.2
2.5°	1256.7	1249.1
5°	1616.3	1623.9
7.5°	2176.5	2172.7
10°	2706.5	2740.5
12.5°	3092.6	3100.1
15°	3327.2	3342.4
17.5°	3418.0	3421.9
20°	3421.9	3414.3
22.5°	3380.2	3372.7
25°	3331.0	3327.2
27.5°	3285.6	3289.4
30°	3266.7	3278.0
32.5°	3266.7	3285.6
35°	3274.2	3293.1
37.5°	3270.4	3293.1
40°	3255.3	3281.8
42.5°	3213.7	3232.6
45°	3149.3	3172.0
47.5°	3066.0	3081.2
50°	2960.0	2975.2
52.5°	2827.6	2831.4
55°	2668.6	2683.7
57.5°	2498.3	2502.0
60°	2309.0	2320.4
62.5°	2108.4	2108.4
65°	1896.4	1904.0
67.5°	1676.9	1695.8
70°	1453.5	1457.3
72.5°	1234.0	1234.0
75°	1006.9	1010.7
77.5°	791.1	791.1
80°	586.8	590.5
82.5°	405.0	412.6
85°	253.6	253.6
87.5°	117.4	106.0
90°	10.9	10.9
92.5°	43.7	35.0
95°	152.2	126.0
97.5°	364.8	314.8
100°	525.6	466.0
102.5°	683.7	632.7
105°	885.4	858.0
107.5°	1017.6	1024.1
110°	1067.9	1096.4

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1072.4	1116.2
115°	1043.9	1104.7
117.5°	983.6	1051.1
120°	935.0	1000.6
122.5°	887.8	952.4
125°	820.2	879.7
127.5°	759.5	809.7
130°	723.8	770.2
132.5°	691.3	732.9
135°	646.8	682.6
137.5°	611.1	640.5
140°	586.7	614.1
142.5°	566.4	590.0
145°	535.9	553.8
147.5°	512.6	527.4
150°	497.9	509.9
152.5°	485.3	494.4
155°	470.9	476.9
157.5°	459.5	463.7
160°	452.7	455.1
162.5°	448.2	450.5
165°	441.8	444.2
167.5°	437.1	438.2
170°	435.9	435.9
172.5°	432.4	431.6
175°	430.4	430.4
177.5°	428.6	427.6
180°	427.6	427.6

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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	7.63	8.86	8.31	9.57	10.40	20.82	22.06	21.50	22.76	23.59
	3H	8.36	9.48	9.06	10.19	11.05	22.69	23.81	23.39	24.52	25.38
	4H	8.68	9.73	9.39	10.46	11.33	23.36	24.41	24.07	25.14	26.01
	6H	8.95	9.92	9.67	10.66	11.55	23.81	24.79	24.54	25.52	26.41
	8H	9.03	9.96	9.76	10.71	11.60	23.95	24.88	24.68	25.64	26.53
	12H	9.06	9.95	9.80	10.70	11.61	24.03	24.92	24.77	25.67	26.59
4H	2H	14.90	15.95	15.61	16.68	17.55	21.14	22.19	21.86	22.92	23.79
	3H	16.50	17.38	17.23	18.14	19.04	23.22	24.11	23.95	24.87	25.76
	4H	16.61	17.41	17.35	18.18	19.10	24.01	24.82	24.76	25.58	26.50
	6H	16.64	17.34	17.40	18.13	19.06	24.58	25.28	25.34	26.07	26.99
	8H	16.63	17.28	17.40	18.07	19.01	24.75	25.41	25.52	26.19	27.13
	12H	16.60	17.20	17.39	18.00	18.95	24.87	25.46	25.66	26.27	27.21
8H	4H	18.09	18.75	18.86	19.53	20.47	24.10	24.76	24.87	25.54	26.48
	6H	18.35	18.89	19.15	19.72	20.66	24.75	25.30	25.55	26.13	27.07
	8H	18.37	18.86	19.18	19.68	20.64	24.98	25.47	25.79	26.29	27.25
	12H	18.36	18.79	19.17	19.60	20.62	25.15	25.58	25.96	26.39	27.41
12H	4H	18.25	18.84	19.04	19.65	20.60	24.07	24.67	24.86	25.47	26.42
	6H	18.61	19.10	19.42	19.93	20.88	24.74	25.23	25.55	26.05	27.01
	8H	18.70	19.13	19.51	19.95	20.96	24.99	25.42	25.81	26.24	27.25