

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: P936945

Luminaire Tested: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936945
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-92765-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

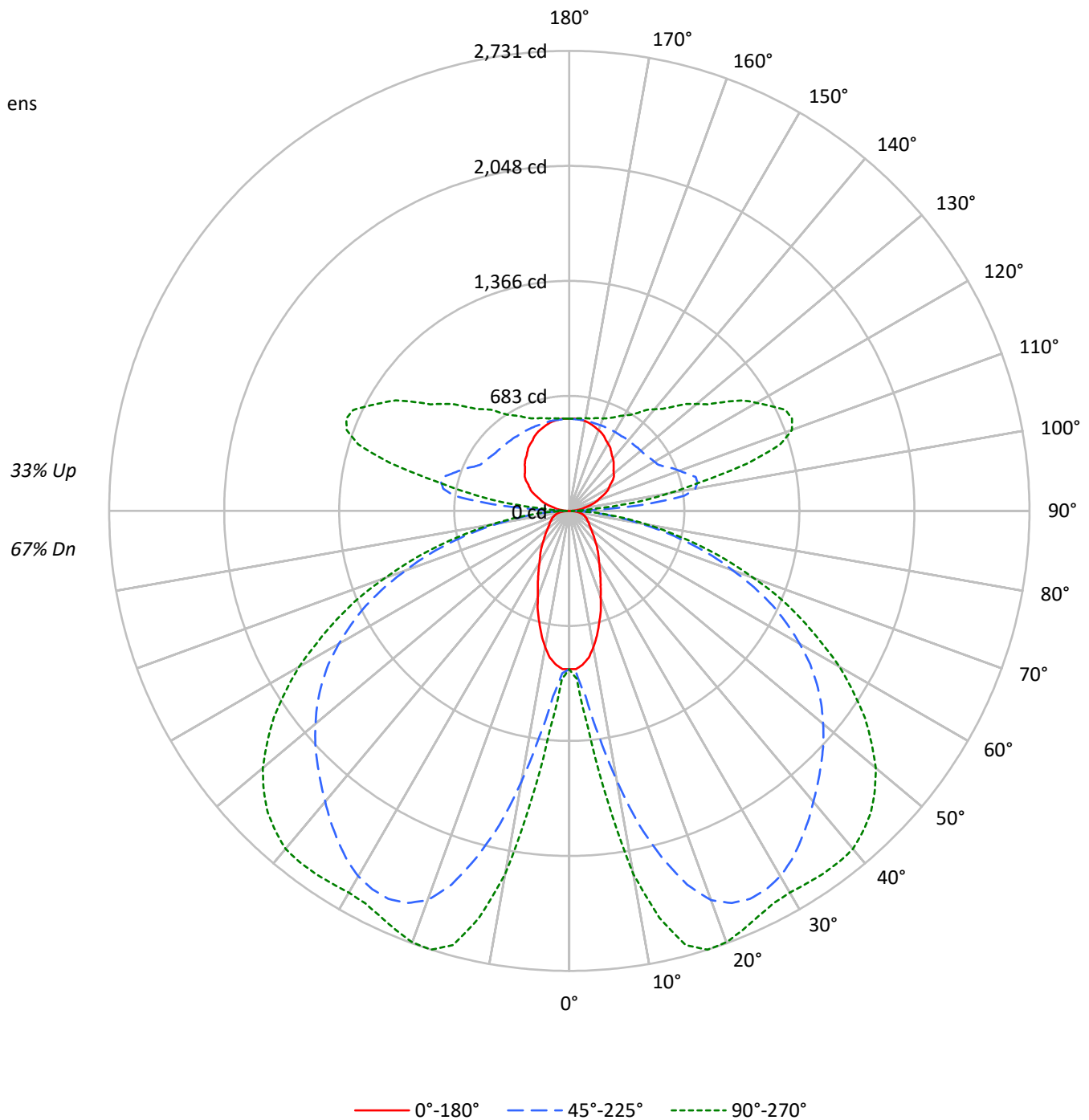
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10824.8 lumens
Efficiency: N/A
Efficacy: 96.7 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 (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

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CATALOG NUMBER: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-8-3500K

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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4359	4359	4359
5°	4259	5039	5860
10°	3863	7344	9715
15°	3283	9595	11730
20°	2673	11120	11954
25°	2230	11636	11712
30°	1880	11709	11690
35°	1663	11515	11992
40°	1449	11263	12304
45°	1312	11077	12352
50°	1203	10911	12148
55°	1153	10667	11609
60°	1180	10198	10759
65°	1227	9486	9591
70°	1308	8273	8103
75°	1449	6745	6323
80°	1584	4678	4261
85°	1407	2482	2180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	1.1
10°-20°	538.7	5.0
20°-30°	942.2	8.7
30°-40°	1212.9	11.2
40°-50°	1354.8	12.5
50°-60°	1297.6	12.0
60°-70°	1028.3	9.5
70°-80°	604.7	5.6
80°-90°	170.1	1.6
90°-100°	267.2	2.5
100°-110°	702.6	6.5
110°-120°	728.5	6.7
120°-130°	584.4	5.4
130°-140°	458.5	4.2
140°-150°	351.9	3.3
150°-160°	253.5	2.3
160°-170°	155.1	1.4
170°-180°	52.4	0.5
0°-30°	1602.4	14.8
0°-40°	2815.3	26.0
0°-60°	5467.6	50.5
0°-90°	7270.7	67.2
90°-120°	1698.4	15.7
90°-150°	3093.2	28.6
90°-180°	3554.0	32.8
0°-180°	10824.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	915	982	1106	1251	1296	84
15°	686	1266	2133	2586	2668	191
25°	438	1435	2541	2653	2656	202
35°	296	1372	2393	2529	2628	185
45°	202	1094	2115	2423	2532	157
55°	145	695	1795	2085	2142	132
65°	115	369	1332	1498	1520	114
75°	85	226	731	804	807	89
85°	30	69	181	199	202	32
90°	4	10	28	14	14	5
95°	35	138	460	237	162	39
105°	127	192	777	1179	1100	134
115°	225	273	622	1241	1417	222
125°	313	351	566	956	1128	278
135°	373	410	548	772	875	288
145°	432	460	541	659	710	271
155°	489	502	541	594	612	225
165°	527	534	541	563	570	149
175°	548	548	545	552	552	52
180°	548	548	548	548	548	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6
2.5°	939.6	939.6	945.6	948.7	954.7	957.7	963.8	969.8	988.0	991.0	997.0
5°	915.4	927.5	966.8	981.9	1024.2	1081.6	1105.8	1145.1	1226.5	1250.7	1265.8
7.5°	879.1	906.4	1003.0	1027.2	1132.9	1284.0	1347.4	1432.0	1561.9	1625.4	1676.8
10°	821.7	879.1	1051.3	1108.7	1281.0	1510.6	1628.4	1746.2	1942.6	2030.3	2063.5
12.5°	758.3	852.0	1102.7	1181.3	1429.0	1764.4	1906.4	2036.2	2259.8	2377.7	2395.8
15°	685.8	812.7	1151.0	1265.8	1586.1	1975.8	2132.9	2293.1	2501.6	2586.1	2607.3
17.5°	622.3	782.5	1196.4	1317.2	1707.0	2166.2	2326.3	2459.3	2628.4	2685.8	2700.9
20°	543.8	734.2	1226.5	1383.7	1833.9	2305.2	2459.3	2561.9	2676.8	2713.0	2719.0
22.5°	486.4	682.8	1244.8	1407.8	1918.4	2389.7	2519.7	2601.2	2679.7	2691.9	2694.9
25°	438.1	625.4	1241.7	1435.1	1991.0	2441.1	2540.8	2601.2	2646.5	2652.6	2652.6
27.5°	392.8	561.9	1229.6	1441.1	2045.3	2453.2	2531.7	2574.0	2595.2	2607.3	2607.3
30°	353.5	501.5	1199.4	1429.0	2069.5	2441.1	2504.5	2525.7	2546.8	2564.9	2574.0
32.5°	323.3	444.1	1154.1	1404.8	2072.5	2410.9	2456.2	2468.3	2498.5	2540.8	2555.9
35°	296.1	386.7	1102.7	1371.6	2054.4	2362.6	2392.8	2404.8	2465.2	2528.7	2549.9
37.5°	268.9	344.4	1036.2	1314.2	2027.2	2305.2	2326.3	2347.4	2441.1	2516.7	2540.8
40°	241.7	308.1	957.7	1250.7	1984.9	2235.7	2253.8	2287.0	2410.9	2498.5	2522.6
42.5°	220.6	278.0	873.2	1184.3	1930.6	2157.1	2184.3	2232.6	2374.6	2468.3	2495.5
45°	202.4	247.7	782.5	1093.6	1861.0	2075.5	2114.8	2181.3	2332.3	2423.0	2447.1
47.5°	184.3	226.5	688.8	1000.0	1785.5	1993.9	2045.3	2120.9	2274.9	2362.6	2383.7
50°	169.2	205.5	595.2	900.3	1703.9	1906.4	1966.8	2045.3	2202.5	2284.0	2311.2
52.5°	157.1	187.3	507.5	800.6	1610.3	1815.7	1885.2	1966.8	2114.8	2193.3	2211.5
55°	145.1	172.2	432.0	694.9	1513.6	1719.0	1794.6	1873.2	2018.1	2084.6	2096.7
57.5°	139.0	160.1	368.6	595.2	1410.9	1610.3	1694.9	1767.4	1903.3	1954.7	1966.8
60°	129.9	151.0	320.3	510.6	1299.1	1507.5	1580.0	1652.6	1767.4	1809.7	1818.7
62.5°	120.9	145.1	284.0	429.0	1184.3	1386.7	1459.3	1525.7	1622.3	1652.6	1664.6
65°	114.8	139.0	256.8	368.6	1066.5	1259.8	1332.3	1389.7	1468.3	1498.5	1504.5
67.5°	108.7	132.9	235.7	317.2	948.7	1132.9	1187.3	1241.7	1302.2	1332.3	1335.4
70°	99.7	126.9	217.5	281.0	827.8	988.0	1033.2	1090.6	1139.0	1154.1	1163.2
72.5°	93.6	117.8	205.5	253.8	703.9	849.0	891.3	924.5	966.8	981.9	981.9
75°	84.6	105.8	193.3	226.5	577.1	694.9	731.1	764.4	797.6	803.6	794.6
77.5°	75.5	93.6	166.2	190.3	450.1	549.9	580.0	598.2	625.4	631.4	634.5
80°	63.5	81.6	129.9	148.0	326.3	404.8	426.0	441.1	465.2	465.2	471.3
82.5°	48.4	63.5	93.6	105.8	220.6	278.0	296.1	305.1	320.3	320.3	320.3
85°	30.2	39.3	60.4	69.4	132.9	169.2	181.3	184.3	196.4	199.4	199.4
87.5°	15.1	21.2	39.3	42.3	69.4	87.7	87.7	93.6	93.6	90.6	87.7
90°	3.7	6.6	9.6	10.3	16.2	24.0	27.9	24.8	18.7	14.0	14.0
92.5°	14.7	39.7	64.8	71.1	99.9	138.3	157.5	138.0	99.1	69.9	67.1
95°	35.3	81.1	126.9	138.4	245.6	388.7	460.3	410.8	311.7	237.3	229.0
97.5°	61.1	101.4	141.8	151.9	330.9	569.5	688.8	657.5	594.8	547.9	531.8
100°	81.0	117.6	154.2	163.3	362.0	626.7	759.1	761.4	766.0	769.3	750.2
102.5°	97.9	132.1	166.2	174.8	376.2	644.7	779.0	818.9	898.7	958.5	942.2
105°	126.6	155.5	184.5	191.7	386.8	646.8	776.8	866.2	1045.2	1179.3	1170.5
107.5°	156.0	183.0	209.9	216.7	388.6	618.0	732.6	857.4	1106.9	1294.1	1296.3
110°	175.8	200.2	224.7	230.7	385.8	592.4	695.8	835.3	1114.3	1323.5	1332.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	195.4	218.6	241.8	247.6	385.9	570.2	662.3	805.1	1090.6	1304.7	1318.8
115°	224.9	246.3	267.7	273.1	389.5	544.7	622.2	759.8	1034.8	1241.1	1260.6
117.5°	253.9	273.3	292.8	297.7	396.7	528.6	594.6	718.7	967.0	1153.2	1174.8
120°	270.8	289.1	307.5	312.1	402.6	523.3	583.6	697.0	923.8	1093.9	1114.9
122.5°	287.3	305.8	324.3	328.9	411.0	520.4	575.1	677.2	881.6	1034.7	1055.4
125°	312.8	329.6	346.4	350.6	422.4	518.1	565.9	652.7	826.2	956.4	975.5
127.5°	333.4	350.4	367.3	371.6	433.8	516.7	558.2	632.7	781.7	893.4	909.5
130°	344.4	362.7	381.1	385.6	442.1	517.5	555.2	621.5	754.2	853.6	868.5
132.5°	355.8	374.1	392.5	397.0	448.9	518.1	552.7	612.1	730.8	819.8	833.1
135°	372.8	389.5	406.1	410.2	456.2	517.5	548.2	598.0	697.4	771.9	783.5
137.5°	390.1	406.6	423.1	427.2	467.3	520.8	547.5	589.6	673.7	736.7	746.1
140°	404.4	419.6	434.8	438.6	474.1	521.3	544.9	581.3	653.8	708.3	717.0
142.5°	415.4	429.4	443.5	447.0	479.7	523.2	544.9	576.8	640.6	688.5	696.1
145°	432.4	444.6	456.9	460.0	487.1	523.3	541.3	567.3	619.6	658.7	664.4
147.5°	449.3	461.2	473.2	476.1	497.8	526.8	541.3	561.8	602.8	633.6	638.3
150°	460.3	471.1	481.9	484.6	503.5	528.7	541.3	558.6	593.3	619.3	623.1
152.5°	471.7	480.0	488.1	490.1	507.2	529.9	541.3	556.1	585.6	607.9	610.8
155°	488.6	494.7	500.8	502.3	515.3	532.6	541.3	553.1	576.5	594.2	596.2
157.5°	501.1	507.0	512.9	514.4	523.3	535.3	541.3	550.4	568.7	582.4	583.8
160°	509.6	514.2	518.8	520.0	527.1	536.6	541.3	549.1	564.8	576.5	577.3
162.5°	518.1	521.6	524.9	525.8	531.0	537.9	541.3	547.9	561.2	571.1	571.8
165°	527.3	530.4	533.4	534.2	536.6	539.7	541.3	546.0	555.5	562.6	563.4
167.5°	535.8	537.2	538.7	539.1	541.0	543.6	544.9	548.1	554.3	559.0	559.3
170°	541.3	542.7	544.2	544.6	544.7	544.9	544.9	548.1	554.3	559.0	559.0
172.5°	544.2	544.6	544.9	544.9	544.9	544.9	544.9	547.4	552.4	556.0	555.7
175°	548.2	548.2	548.2	548.2	547.2	545.7	544.9	546.5	549.6	551.9	551.9
177.5°	548.2	548.2	548.2	548.2	547.4	546.2	545.7	546.9	549.3	551.2	550.8
180°	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2	548.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	939.6	939.6
2.5°	1003.0	997.0
5°	1290.0	1296.1
7.5°	1737.1	1734.2
10°	2160.1	2187.4
12.5°	2468.3	2474.3
15°	2655.6	2667.7
17.5°	2728.1	2731.1
20°	2731.1	2725.1
22.5°	2697.9	2691.9
25°	2658.7	2655.6
27.5°	2622.3	2625.4
30°	2607.3	2616.4
32.5°	2607.3	2622.3
35°	2613.3	2628.4
37.5°	2610.3	2628.4
40°	2598.2	2619.4
42.5°	2564.9	2580.1
45°	2513.6	2531.7
47.5°	2447.1	2459.3
50°	2362.6	2374.6
52.5°	2256.8	2259.8
55°	2129.9	2142.0
57.5°	1993.9	1997.0
60°	1842.9	1852.0
62.5°	1682.8	1682.8
65°	1513.6	1519.7
67.5°	1338.4	1353.5
70°	1160.1	1163.2
72.5°	984.9	984.9
75°	803.6	806.7
77.5°	631.4	631.4
80°	468.3	471.3
82.5°	323.3	329.3
85°	202.4	202.4
87.5°	93.6	84.6
90°	14.0	14.0
92.5°	56.0	44.9
95°	195.2	161.6
97.5°	467.7	403.6
100°	673.9	597.5
102.5°	876.7	811.3
105°	1135.3	1100.2
107.5°	1304.7	1313.2
110°	1369.3	1406.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1375.1	1431.3
115°	1338.6	1416.6
117.5°	1261.4	1347.9
120°	1199.0	1283.1
122.5°	1138.4	1221.3
125°	1051.8	1128.2
127.5°	973.9	1038.4
130°	928.1	987.6
132.5°	886.5	939.8
135°	829.4	875.4
137.5°	783.7	821.3
140°	752.2	787.4
142.5°	726.2	756.5
145°	687.3	710.2
147.5°	657.3	676.3
150°	638.5	653.8
152.5°	622.4	634.0
155°	603.9	611.5
157.5°	589.2	594.6
160°	580.5	583.6
162.5°	574.8	577.7
165°	566.5	569.6
167.5°	560.6	561.9
170°	559.0	559.0
172.5°	554.6	553.4
175°	551.9	551.9
177.5°	549.6	548.2
180°	548.2	548.2



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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	7.55	8.64	8.33	9.46	10.46	20.73	21.82	21.51	22.64	23.64
	3H	8.27	9.26	9.07	10.08	11.11	22.58	23.57	23.38	24.40	25.42
	4H	8.58	9.52	9.40	10.35	11.39	23.24	24.17	24.05	25.01	26.05
	6H	8.84	9.71	9.67	10.55	11.60	23.68	24.55	24.51	25.39	26.44
	8H	8.92	9.74	9.75	10.60	11.66	23.81	24.63	24.65	25.49	26.55
	12H	8.94	9.73	9.79	10.58	11.66	23.89	24.67	24.73	25.53	26.61
4H	2H	14.79	15.73	15.61	16.56	17.60	21.03	21.96	21.85	22.80	23.83
	3H	16.38	17.16	17.21	18.03	19.09	23.10	23.88	23.93	24.75	25.80
	4H	16.48	17.20	17.33	18.06	19.15	23.87	24.59	24.72	25.45	26.53
	6H	16.51	17.13	17.37	18.02	19.10	24.43	25.05	25.29	25.94	27.02
	8H	16.49	17.07	17.36	17.96	19.06	24.59	25.18	25.46	26.06	27.16
	12H	16.46	16.99	17.35	17.89	18.99	24.70	25.22	25.59	26.13	27.23
8H	4H	17.95	18.53	18.82	19.41	20.51	23.95	24.53	24.82	25.42	26.52
	6H	18.20	18.69	19.10	19.61	20.71	24.59	25.08	25.49	26.00	27.10
	8H	18.22	18.65	19.13	19.57	20.69	24.82	25.25	25.72	26.16	27.28
	12H	18.20	18.58	19.11	19.49	20.66	24.97	25.35	25.88	26.26	27.43
12H	4H	18.11	18.63	18.99	19.53	20.64	23.92	24.44	24.80	25.35	26.45
	6H	18.47	18.89	19.37	19.81	20.93	24.58	25.01	25.48	25.93	27.04
	8H	18.55	18.92	19.45	19.83	21.00	24.82	25.20	25.73	26.11	27.28