

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: P936456

Luminaire Tested: SQ4-FB-025U-100D-93050-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936456
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-93050-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

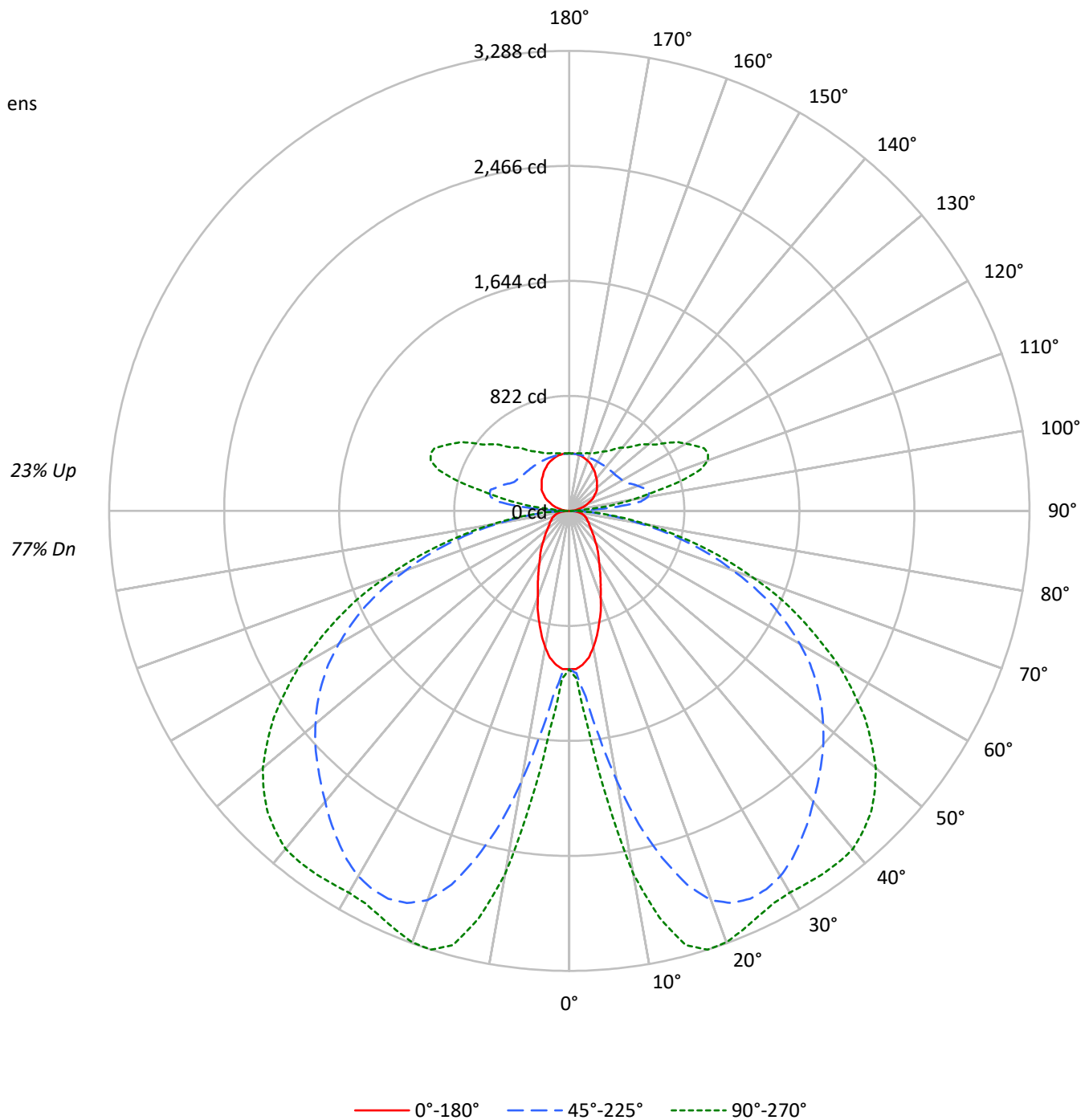
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11416.1 lumens
Efficiency: N/A
Efficacy: 98.1 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 (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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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	50	30	10	0
RCR																					
0	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77			77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66	63			63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55	51			51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45	42			42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38	35			35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33	30			30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28	26			26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25	22			22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22	20			20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	19	17			17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17	16			16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3499	3499	3499
5°	3420	4045	4703
10°	3103	5898	7797
15°	2638	7707	9415
20°	2148	8934	9595
25°	1793	9351	9400
30°	1512	9413	9383
35°	1338	9259	9625
40°	1167	9058	9876
45°	1057	8912	9914
50°	971	8781	9750
55°	930	8588	9318
60°	954	8215	8636
65°	994	7645	7698
70°	1061	6672	6503
75°	1181	5445	5075
80°	1299	3781	3419
85°	1176	2009	1750

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9914 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.3	1.3
10°-20°	648.5	5.7
20°-30°	1134.4	9.9
30°-40°	1460.3	12.8
40°-50°	1631.1	14.3
50°-60°	1562.2	13.7
60°-70°	1238.1	10.8
70°-80°	728.0	6.4
80°-90°	203.8	1.8
90°-100°	200.3	1.8
100°-110°	526.5	4.6
110°-120°	546.0	4.8
120°-130°	437.9	3.8
130°-140°	343.6	3.0
140°-150°	263.7	2.3
150°-160°	189.9	1.7
160°-170°	116.2	1.0
170°-180°	39.3	0.3
0°-30°	1929.2	16.9
0°-40°	3389.5	29.7
0°-60°	6582.8	57.7
0°-90°	8752.7	76.7
90°-120°	1272.7	11.1
90°-150°	2318.0	20.3
90°-180°	2663.0	23.3
0°-180°	11416.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1102	1182	1331	1506	1560	102
15°	826	1524	2568	3114	3212	230
25°	527	1728	3059	3194	3197	243
35°	356	1651	2881	3044	3164	223
45°	244	1317	2546	2917	3048	189
55°	175	837	2161	2510	2579	159
65°	138	444	1604	1804	1830	137
75°	102	273	880	968	971	107
85°	36	84	218	240	244	39
90°	3	8	21	10	10	5
95°	26	104	345	178	121	29
105°	95	144	582	884	824	101
115°	168	205	466	930	1062	166
125°	234	263	424	717	845	208
135°	279	307	411	578	656	216
145°	324	345	406	494	532	203
155°	366	376	406	445	458	168
165°	395	400	406	422	427	112
175°	411	411	408	414	414	39
180°	411	411	411	411	411	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2	1131.2
2.5°	1131.2	1131.2	1138.5	1142.2	1149.4	1153.1	1160.3	1167.6	1189.4	1193.1	1200.3
5°	1102.2	1116.7	1164.0	1182.2	1233.1	1302.2	1331.3	1378.6	1476.8	1505.8	1524.0
7.5°	1058.5	1091.2	1207.6	1236.7	1364.0	1545.9	1622.3	1724.1	1880.5	1956.9	2018.7
10°	989.4	1058.5	1265.8	1334.9	1542.3	1818.7	1960.6	2102.4	2338.8	2444.3	2484.3
12.5°	913.0	1025.7	1327.6	1422.2	1720.5	2124.2	2295.2	2451.6	2720.8	2862.7	2884.4
15°	825.7	978.4	1385.8	1524.0	1909.6	2378.8	2568.0	2760.8	3011.8	3113.6	3139.1
17.5°	749.3	942.1	1440.4	1585.9	2055.1	2608.0	2800.8	2960.9	3164.5	3233.6	3251.9
20°	654.7	883.9	1476.8	1665.9	2207.9	2775.3	2960.9	3084.5	3222.7	3266.4	3273.6
22.5°	585.6	822.1	1498.6	1695.0	2309.7	2877.2	3033.5	3131.8	3226.3	3240.9	3244.5
25°	527.4	753.0	1494.9	1727.7	2397.0	2939.0	3059.0	3131.8	3186.3	3193.6	3193.6
27.5°	472.9	676.5	1480.4	1735.0	2462.5	2953.5	3048.1	3099.1	3124.5	3139.1	3139.1
30°	425.5	603.8	1444.0	1720.5	2491.6	2939.0	3015.4	3040.9	3066.3	3088.1	3099.1
32.5°	389.2	534.6	1389.5	1691.4	2495.2	2902.7	2957.2	2971.8	3008.1	3059.0	3077.2
35°	356.4	465.5	1327.6	1651.4	2473.4	2844.4	2880.8	2895.3	2968.1	3044.5	3070.0
37.5°	323.8	414.7	1247.6	1582.3	2440.7	2775.3	2800.8	2826.2	2939.0	3030.0	3059.0
40°	291.0	371.0	1153.1	1505.8	2389.8	2691.7	2713.4	2753.5	2902.7	3008.1	3037.2
42.5°	265.5	334.7	1051.2	1425.8	2324.2	2597.1	2629.8	2688.0	2859.0	2971.8	3004.4
45°	243.7	298.3	942.1	1316.7	2240.6	2498.9	2546.1	2626.2	2808.1	2917.2	2946.3
47.5°	221.9	272.8	829.3	1204.0	2149.7	2400.7	2462.5	2553.4	2739.0	2844.4	2869.9
50°	203.7	247.3	716.5	1084.0	2051.5	2295.2	2367.9	2462.5	2651.7	2749.9	2782.6
52.5°	189.1	225.5	611.1	963.9	1938.7	2186.0	2269.7	2367.9	2546.1	2640.8	2662.6
55°	174.6	207.3	520.1	836.6	1822.4	2069.7	2160.6	2255.1	2429.8	2509.8	2524.3
57.5°	167.3	192.8	443.8	716.5	1698.7	1938.7	2040.6	2127.9	2291.6	2353.3	2367.9
60°	156.4	181.9	385.5	614.7	1564.0	1815.0	1902.4	1989.7	2127.9	2178.8	2189.7
62.5°	145.5	174.6	341.9	516.5	1425.8	1669.6	1756.8	1836.9	1953.3	1989.7	2004.2
65°	138.2	167.3	309.2	443.8	1284.0	1516.8	1604.0	1673.2	1767.8	1804.1	1811.4
67.5°	131.0	160.0	283.8	381.9	1142.2	1364.0	1429.5	1494.9	1567.7	1604.0	1607.7
70°	120.0	152.8	261.9	338.3	996.6	1189.4	1244.0	1313.1	1371.3	1389.5	1400.4
72.5°	112.8	141.9	247.3	305.5	847.5	1022.1	1073.1	1113.1	1164.0	1182.2	1182.2
75°	101.9	127.3	232.8	272.8	694.7	836.6	880.3	920.3	960.3	967.5	956.6
77.5°	90.9	112.8	200.1	229.1	542.0	662.0	698.4	720.2	753.0	760.2	763.9
80°	76.4	98.2	156.4	178.2	392.9	487.4	512.9	531.1	560.2	560.2	567.4
82.5°	58.2	76.4	112.8	127.3	265.5	334.7	356.4	367.4	385.5	385.5	385.5
85°	36.3	47.3	72.8	83.7	160.0	203.7	218.2	221.9	236.4	240.1	240.1
87.5°	18.2	25.4	47.3	50.9	83.7	105.4	105.4	112.8	112.8	109.1	105.4
90°	2.8	5.0	7.2	7.7	12.1	18.0	20.9	18.6	13.9	10.5	10.5
92.5°	11.0	29.7	48.5	53.2	74.8	103.6	118.0	103.4	74.2	52.4	50.3
95°	26.4	60.8	95.1	103.7	184.1	291.4	345.0	307.8	233.6	177.8	171.5
97.5°	45.8	76.1	106.4	113.9	248.0	426.8	516.2	492.7	445.8	410.6	398.6
100°	60.7	88.1	115.5	122.4	271.3	469.7	568.9	570.6	574.0	576.6	562.3
102.5°	73.3	98.9	124.5	131.0	281.9	483.2	583.7	613.7	673.4	718.3	706.0
105°	94.9	116.5	138.2	143.6	289.8	484.6	582.1	649.1	783.2	883.7	877.1
107.5°	116.9	137.1	157.4	162.4	291.3	463.1	549.0	642.5	829.5	969.8	971.4
110°	131.8	150.0	168.3	172.9	289.1	444.0	521.4	626.0	835.0	991.8	998.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	146.5	163.8	181.2	185.6	289.2	427.3	496.4	603.4	817.3	977.8	988.4
115°	168.5	184.5	200.6	204.6	291.8	408.1	466.3	569.3	775.5	930.1	944.7
117.5°	190.2	204.8	219.4	223.1	297.2	396.2	445.6	538.7	724.7	864.2	880.4
120°	202.9	216.7	230.4	233.8	301.6	392.0	437.3	522.3	692.3	819.8	835.6
122.5°	215.4	229.2	243.0	246.5	308.0	389.9	430.9	507.5	660.6	775.4	790.9
125°	234.4	247.0	259.7	262.8	316.6	388.3	424.1	489.0	619.1	716.6	730.9
127.5°	249.8	262.6	275.3	278.5	325.1	387.3	418.3	474.1	585.8	669.5	681.6
130°	258.1	271.8	285.6	289.0	331.4	387.8	416.1	465.8	565.2	639.7	650.9
132.5°	266.7	280.4	294.1	297.5	336.4	388.3	414.2	458.7	547.7	614.4	624.4
135°	279.3	291.8	304.3	307.4	341.9	387.9	410.9	448.1	522.6	578.5	587.1
137.5°	292.3	304.7	317.0	320.1	350.2	390.3	410.3	441.8	504.7	552.0	559.1
140°	303.0	314.4	325.9	328.7	355.2	390.7	408.4	435.5	490.0	530.8	537.4
142.5°	311.3	321.8	332.4	335.1	359.5	392.0	408.4	432.2	480.0	515.9	521.6
145°	324.0	333.2	342.4	344.7	365.0	392.0	405.6	425.2	464.3	493.5	497.8
147.5°	336.7	345.6	354.6	356.8	373.0	394.8	405.6	421.0	451.8	474.8	478.4
150°	345.0	353.0	361.1	363.1	377.3	396.2	405.6	418.7	444.6	464.1	466.9
152.5°	353.5	359.6	365.7	367.3	380.0	397.1	405.6	416.7	438.9	455.5	457.7
155°	366.2	370.7	375.2	376.3	386.1	399.1	405.6	414.4	432.1	445.4	446.8
157.5°	375.5	379.9	384.4	385.5	392.2	401.1	405.6	412.5	426.2	436.5	437.5
160°	381.9	385.3	388.8	389.7	395.0	402.0	405.6	411.5	423.2	432.1	432.6
162.5°	388.3	390.8	393.4	394.1	397.9	403.1	405.6	410.6	420.5	427.9	428.5
165°	395.2	397.5	399.8	400.4	402.1	404.4	405.6	409.2	416.3	421.6	422.1
167.5°	401.5	402.6	403.7	404.0	405.4	407.4	408.4	410.7	415.3	418.8	419.1
170°	405.6	406.7	407.8	408.1	408.2	408.3	408.4	410.7	415.3	418.8	418.8
172.5°	407.8	408.1	408.3	408.4	408.4	408.4	408.4	410.2	413.9	416.6	416.4
175°	410.9	410.9	410.9	410.9	410.0	408.9	408.4	409.6	411.9	413.6	413.6
177.5°	410.9	410.9	410.9	410.9	410.2	409.4	408.9	409.8	411.7	413.1	412.8
180°	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9	410.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1131.2	1131.2
2.5°	1207.6	1200.3
5°	1553.2	1560.4
7.5°	2091.5	2087.8
10°	2600.7	2633.4
12.5°	2971.8	2979.0
15°	3197.2	3211.8
17.5°	3284.5	3288.2
20°	3288.2	3280.9
22.5°	3248.2	3240.9
25°	3200.9	3197.2
27.5°	3157.2	3160.9
30°	3139.1	3150.0
32.5°	3139.1	3157.2
35°	3146.3	3164.5
37.5°	3142.6	3164.5
40°	3128.1	3153.6
42.5°	3088.1	3106.3
45°	3026.3	3048.1
47.5°	2946.3	2960.9
50°	2844.4	2859.0
52.5°	2717.1	2720.8
55°	2564.3	2578.9
57.5°	2400.7	2404.3
60°	2218.8	2229.7
62.5°	2026.0	2026.0
65°	1822.4	1829.6
67.5°	1611.4	1629.6
70°	1396.7	1400.4
72.5°	1185.8	1185.8
75°	967.5	971.2
77.5°	760.2	760.2
80°	563.8	567.4
82.5°	389.2	396.4
85°	243.7	243.7
87.5°	112.8	101.9
90°	10.5	10.5
92.5°	42.0	33.7
95°	146.3	121.0
97.5°	350.6	302.5
100°	505.1	447.8
102.5°	657.0	608.0
105°	850.8	824.5
107.5°	977.8	984.1
110°	1026.2	1053.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1030.5	1072.6
115°	1003.1	1061.6
117.5°	945.2	1010.0
120°	898.5	961.5
122.5°	853.1	915.2
125°	788.1	845.4
127.5°	729.8	778.1
130°	695.5	740.1
132.5°	664.3	704.2
135°	621.6	656.0
137.5°	587.2	615.5
140°	563.7	590.1
142.5°	544.3	567.0
145°	515.0	532.2
147.5°	492.6	506.8
150°	478.5	490.0
152.5°	466.4	475.1
155°	452.5	458.3
157.5°	441.6	445.6
160°	435.0	437.3
162.5°	430.7	432.9
165°	424.5	426.8
167.5°	420.0	421.0
170°	418.8	418.8
172.5°	415.5	414.7
175°	413.6	413.6
177.5°	411.9	410.9
180°	410.9	410.9



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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	7.49	8.73	8.17	9.43	10.26	20.68	21.92	21.36	22.62	23.45
	3H	8.22	9.34	8.92	10.05	10.91	22.56	23.67	23.25	24.38	25.25
	4H	8.54	9.59	9.25	10.32	11.19	23.22	24.27	23.93	25.00	25.87
	6H	8.81	9.78	9.54	10.52	11.41	23.68	24.65	24.40	25.39	26.27
	8H	8.89	9.82	9.62	10.57	11.47	23.81	24.74	24.55	25.50	26.39
	12H	8.92	9.81	9.66	10.56	11.48	23.89	24.78	24.64	25.53	26.45
4H	2H	14.76	15.81	15.47	16.54	17.41	21.00	22.05	21.72	22.78	23.65
	3H	16.36	17.24	17.09	18.01	18.90	23.09	23.97	23.81	24.73	25.62
	4H	16.47	17.28	17.22	18.04	18.96	23.87	24.68	24.62	25.44	26.36
	6H	16.50	17.20	17.27	17.99	18.92	24.44	25.14	25.20	25.93	26.85
	8H	16.49	17.15	17.26	17.93	18.87	24.61	25.27	25.38	26.05	26.99
	12H	16.46	17.06	17.25	17.86	18.81	24.73	25.32	25.52	26.13	27.07
8H	4H	17.95	18.61	18.72	19.39	20.33	23.96	24.62	24.73	25.41	26.35
	6H	18.21	18.76	19.01	19.58	20.52	24.62	25.16	25.41	25.99	26.93
	8H	18.23	18.72	19.04	19.54	20.50	24.84	25.33	25.65	26.16	27.11
	12H	18.22	18.65	19.03	19.47	20.48	25.01	25.44	25.82	26.25	27.27
12H	4H	18.11	18.71	18.90	19.51	20.46	23.94	24.53	24.72	25.34	26.28
	6H	18.47	18.96	19.28	19.79	20.75	24.60	25.09	25.41	25.92	26.87
	8H	18.56	18.99	19.38	19.81	20.82	24.85	25.28	25.67	26.10	27.12