

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: P936887

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-6-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936887
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-6-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

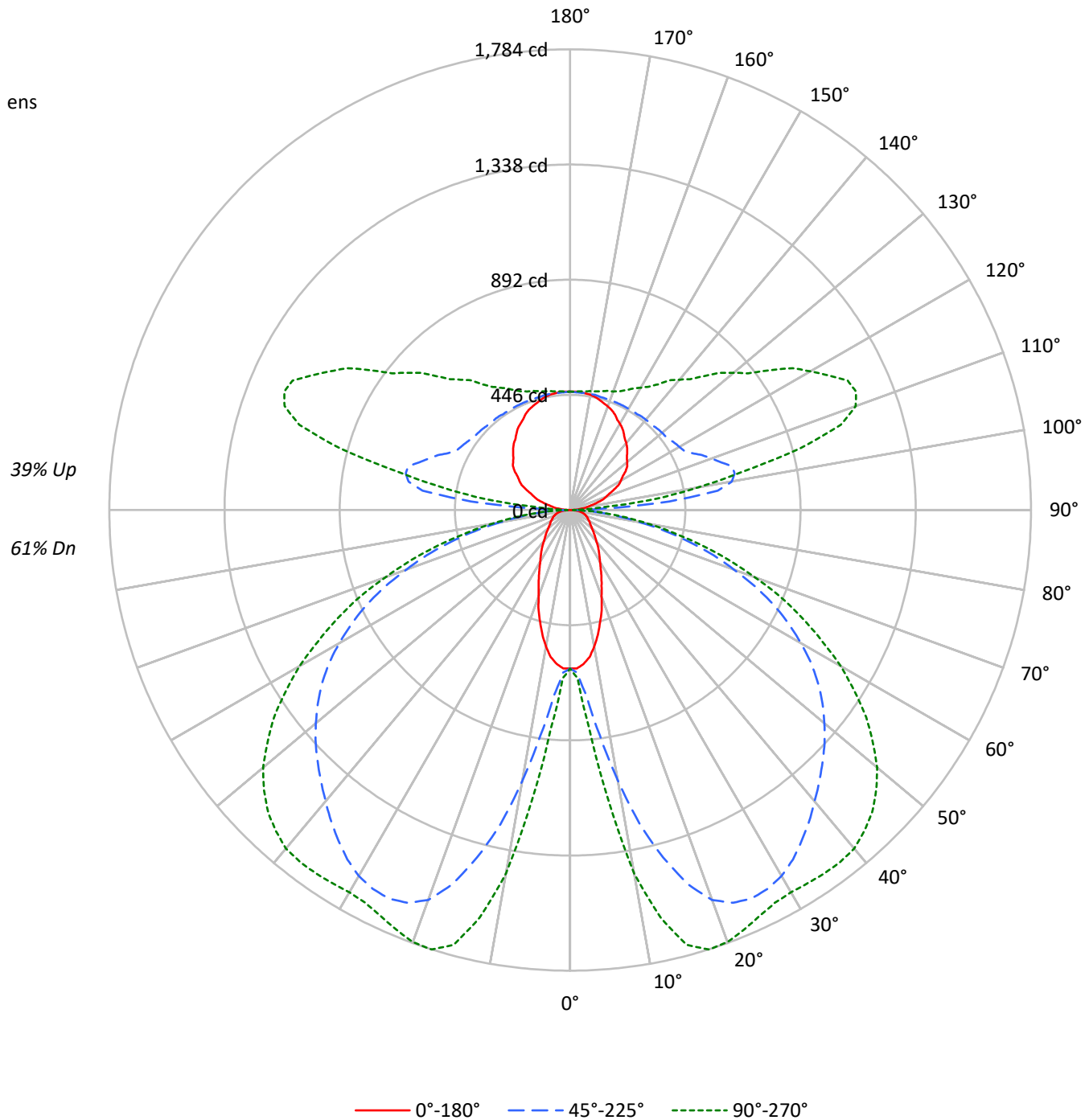
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7725.0 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 67.8
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: P936887
CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-6-2700K

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3797	3797	3797
5°	3709	4388	5104
10°	3362	6395	8462
15°	2857	8353	10218
20°	2325	9677	10414
25°	1939	10124	10202
30°	1634	10185	10183
35°	1444	10014	10447
40°	1258	9791	10718
45°	1138	9628	10760
50°	1044	9479	10583
55°	998	9264	10113
60°	1021	8853	9372
65°	1060	8230	8354
70°	1126	7173	7058
75°	1244	5843	5508
80°	1347	4047	3712
85°	1175	2143	1900

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10760 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	1.0
10°-20°	351.9	4.6
20°-30°	615.6	8.0
30°-40°	792.4	10.3
40°-50°	885.1	11.5
50°-60°	847.8	11.0
60°-70°	671.8	8.7
70°-80°	395.1	5.1
80°-90°	111.5	1.4
90°-100°	223.7	2.9
100°-110°	588.0	7.6
110°-120°	609.7	7.9
120°-130°	489.0	6.3
130°-140°	383.7	5.0
140°-150°	294.5	3.8
150°-160°	212.1	2.7
160°-170°	129.8	1.7
170°-180°	43.8	0.6
0°-30°	1046.9	13.6
0°-40°	1839.4	23.8
0°-60°	3572.3	46.2
0°-90°	4750.7	61.5
90°-120°	1421.3	18.4
90°-150°	2588.6	33.5
90°-180°	2974.0	38.5
0°-180°	7725.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	598	642	722	817	847	55
15°	448	827	1394	1690	1743	125
25°	286	938	1660	1733	1735	132
35°	193	896	1563	1652	1717	121
45°	132	714	1382	1583	1654	102
55°	95	454	1172	1362	1400	86
65°	75	241	870	979	993	74
75°	55	148	478	525	527	58
85°	20	45	118	130	132	21
90°	3	9	23	12	12	4
95°	30	116	385	199	135	33
105°	106	160	650	987	921	112
115°	188	228	521	1039	1186	186
125°	262	293	474	800	944	232
135°	312	343	459	646	733	241
145°	362	385	453	551	594	227
155°	409	420	453	497	512	188
165°	441	447	453	471	477	125
175°	459	459	456	462	462	44
180°	459	459	459	459	459	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8
2.5°	613.8	613.8	617.8	619.8	623.7	625.7	629.7	633.7	645.4	647.4	651.4
5°	598.1	606.0	631.7	641.5	669.1	706.7	722.4	748.1	801.4	817.2	827.1
7.5°	574.4	592.1	655.4	671.1	740.2	838.9	880.4	935.6	1020.5	1061.9	1095.5
10°	536.8	574.4	686.9	724.4	836.9	986.9	1063.9	1140.9	1269.2	1326.5	1348.2
12.5°	495.4	556.7	720.5	771.8	933.7	1152.8	1245.5	1330.4	1476.5	1553.5	1565.3
15°	448.1	531.0	752.1	827.1	1036.2	1290.9	1393.6	1498.2	1634.3	1689.6	1703.5
17.5°	406.7	511.2	781.7	860.6	1115.2	1415.3	1519.9	1606.7	1717.3	1754.8	1764.6
20°	355.3	479.7	801.4	904.1	1198.2	1506.1	1606.7	1673.9	1748.9	1772.6	1776.5
22.5°	317.8	446.1	813.2	919.8	1253.4	1561.3	1646.2	1699.5	1750.9	1758.7	1760.7
25°	286.3	408.6	811.2	937.6	1300.8	1594.9	1660.0	1699.5	1729.2	1733.0	1733.0
27.5°	256.6	367.1	803.4	941.5	1336.3	1602.8	1654.1	1681.7	1695.6	1703.5	1703.5
30°	231.0	327.7	783.7	933.7	1352.1	1594.9	1636.3	1650.2	1664.0	1675.8	1681.7
32.5°	211.3	290.1	754.0	917.8	1354.1	1575.2	1604.8	1612.6	1632.3	1660.0	1669.9
35°	193.4	252.7	720.5	896.1	1342.2	1543.6	1563.3	1571.2	1610.6	1652.2	1665.9
37.5°	175.7	225.0	677.1	858.7	1324.5	1506.1	1519.9	1533.7	1594.9	1644.2	1660.0
40°	157.9	201.3	625.7	817.2	1296.8	1460.6	1472.5	1494.2	1575.2	1632.3	1648.2
42.5°	144.1	181.6	570.4	773.8	1261.3	1409.3	1427.1	1458.6	1551.5	1612.6	1630.5
45°	132.3	161.8	511.2	714.5	1215.9	1356.1	1381.8	1425.2	1523.8	1583.0	1598.9
47.5°	120.4	148.0	450.1	653.4	1166.5	1302.8	1336.3	1385.6	1486.3	1543.6	1557.3
50°	110.6	134.3	388.8	588.2	1113.2	1245.5	1285.0	1336.3	1438.9	1492.2	1510.0
52.5°	102.7	122.4	331.6	523.1	1052.1	1186.3	1231.7	1285.0	1381.8	1433.0	1444.9
55°	94.7	112.5	282.3	454.0	988.9	1123.1	1172.5	1223.8	1318.5	1361.9	1369.9
57.5°	90.8	104.6	240.8	388.8	921.8	1052.1	1107.4	1154.8	1243.5	1277.1	1285.0
60°	84.9	98.7	209.3	333.6	848.8	984.9	1032.4	1079.7	1154.8	1182.4	1188.2
62.5°	79.0	94.7	185.6	280.3	773.8	906.0	953.4	996.8	1059.9	1079.7	1087.6
65°	75.0	90.8	167.8	240.8	696.8	823.1	870.5	908.0	959.3	979.1	983.0
67.5°	71.0	86.9	154.0	207.3	619.8	740.2	775.7	811.2	850.8	870.5	872.5
70°	65.1	82.9	142.1	183.6	540.8	645.4	675.1	712.5	744.1	754.0	759.9
72.5°	61.2	77.0	134.3	165.8	460.0	554.7	582.3	604.0	631.7	641.5	641.5
75°	55.3	69.1	126.3	148.0	377.0	454.0	477.7	499.4	521.1	525.1	519.1
77.5°	49.3	61.2	108.6	124.4	294.1	359.3	379.0	390.8	408.6	412.5	414.5
80°	41.4	53.3	84.9	96.7	213.1	264.5	278.3	288.1	304.0	304.0	308.0
82.5°	31.6	41.4	61.2	69.1	144.1	181.6	193.4	199.4	209.3	209.3	209.3
85°	19.7	25.7	39.4	45.4	86.9	110.6	118.4	120.4	128.3	130.3	130.3
87.5°	9.9	13.8	25.7	27.6	45.4	57.3	57.3	61.2	61.2	59.3	57.3
90°	3.1	5.6	8.1	8.7	13.5	20.1	23.4	20.8	15.5	11.7	11.7
92.5°	12.4	33.3	54.2	59.5	83.6	115.7	131.8	115.4	82.9	58.5	56.2
95°	29.6	67.8	106.2	115.7	205.6	325.4	385.3	343.8	260.9	198.6	191.5
97.5°	51.1	85.0	118.7	127.2	277.0	476.7	576.5	550.3	497.8	458.5	445.0
100°	67.7	98.4	129.1	136.8	302.9	524.5	635.2	637.1	641.0	643.9	628.0
102.5°	81.9	110.6	139.1	146.3	314.8	539.5	651.9	685.2	752.1	802.2	788.5
105°	106.0	130.2	154.4	160.5	323.6	541.2	650.0	724.9	874.6	986.9	979.6
107.5°	130.6	153.2	175.7	181.4	325.3	517.1	613.0	717.4	926.3	1083.0	1084.7
110°	147.2	167.5	187.9	193.0	322.8	495.8	582.3	699.0	932.6	1107.7	1115.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	163.5	183.0	202.4	207.3	322.9	477.2	554.3	673.8	912.7	1091.9	1103.7
115°	188.1	206.1	224.0	228.5	325.9	455.8	520.7	635.8	866.0	1038.6	1055.0
117.5°	212.4	228.8	245.0	249.1	332.0	442.4	497.6	601.5	809.2	965.0	983.2
120°	226.6	241.9	257.3	261.2	336.8	437.8	488.3	583.3	773.1	915.4	933.1
122.5°	240.5	256.0	271.4	275.3	343.9	435.5	481.3	566.7	737.7	865.9	883.3
125°	261.7	275.8	289.9	293.4	353.5	433.6	473.6	546.2	691.4	800.3	816.2
127.5°	279.0	293.2	307.5	311.1	363.0	432.5	467.1	529.5	654.1	747.6	761.0
130°	288.2	303.6	318.9	322.7	370.0	433.1	464.6	520.1	631.2	714.4	726.9
132.5°	297.8	313.1	328.5	332.3	375.7	433.6	462.5	512.2	611.5	686.0	697.2
135°	311.9	325.9	339.8	343.3	381.9	433.2	458.9	500.5	583.7	646.0	655.7
137.5°	326.4	340.2	354.0	357.5	391.0	435.8	458.2	493.3	563.6	616.4	624.3
140°	338.4	351.2	363.8	367.0	396.7	436.2	456.1	486.4	547.2	592.7	600.1
142.5°	347.6	359.4	371.1	374.1	401.4	437.8	456.1	482.8	536.0	576.1	582.5
145°	361.8	372.1	382.4	385.0	407.7	437.8	453.0	474.8	518.4	551.2	556.0
147.5°	376.0	386.0	396.0	398.5	416.6	440.8	453.0	470.1	504.5	530.3	534.3
150°	385.3	394.3	403.3	405.6	421.4	442.4	453.0	467.5	496.5	518.2	521.4
152.5°	394.7	401.6	408.5	410.2	424.4	443.4	453.0	465.3	490.1	508.7	511.0
155°	409.0	414.0	419.0	420.3	431.2	445.7	453.0	462.8	482.6	497.3	498.9
157.5°	419.4	424.3	429.3	430.5	437.9	448.0	453.0	460.6	476.0	487.4	488.5
160°	426.5	430.3	434.1	435.1	441.0	449.0	453.0	459.6	472.7	482.6	483.2
162.5°	433.6	436.4	439.3	440.0	444.3	450.1	453.0	458.6	469.6	477.9	478.5
165°	441.2	443.8	446.4	447.1	449.1	451.7	453.0	457.0	464.8	470.8	471.5
167.5°	448.3	449.5	450.8	451.1	452.8	455.0	456.1	458.7	463.8	467.7	468.0
170°	453.0	454.2	455.5	455.8	455.9	456.0	456.1	458.7	463.8	467.7	467.7
172.5°	455.5	455.8	456.0	456.1	456.1	456.1	456.1	458.1	462.1	465.2	465.0
175°	458.9	458.9	458.9	458.9	458.0	456.7	456.1	457.4	460.0	461.8	461.8
177.5°	458.9	458.9	458.9	458.9	458.2	457.2	456.7	457.7	459.8	461.2	460.9
180°	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	613.8	613.8
2.5°	655.4	651.4
5°	842.8	846.8
7.5°	1134.9	1133.0
10°	1411.3	1429.1
12.5°	1612.6	1616.6
15°	1735.0	1742.9
17.5°	1782.4	1784.3
20°	1784.3	1780.4
22.5°	1762.6	1758.7
25°	1737.0	1735.0
27.5°	1713.3	1715.3
30°	1703.5	1709.3
32.5°	1703.5	1713.3
35°	1707.4	1717.3
37.5°	1705.5	1717.3
40°	1697.5	1711.3
42.5°	1675.8	1685.7
45°	1642.3	1654.1
47.5°	1598.9	1606.7
50°	1543.6	1551.5
52.5°	1474.5	1476.5
55°	1391.6	1399.5
57.5°	1302.8	1304.8
60°	1204.1	1209.9
62.5°	1099.5	1099.5
65°	988.9	992.8
67.5°	874.4	884.2
70°	758.0	759.9
72.5°	643.5	643.5
75°	525.1	527.0
77.5°	412.5	412.5
80°	306.0	308.0
82.5°	211.3	215.1
85°	132.3	132.3
87.5°	61.2	55.3
90°	11.7	11.7
92.5°	46.8	37.5
95°	163.3	135.2
97.5°	391.4	337.8
100°	564.0	500.1
102.5°	733.8	679.0
105°	950.2	920.7
107.5°	1091.8	1099.0
110°	1145.9	1176.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1150.8	1197.8
115°	1120.2	1185.5
117.5°	1055.6	1128.0
120°	1003.4	1073.8
122.5°	952.7	1022.0
125°	880.2	944.1
127.5°	815.0	869.0
130°	776.7	826.5
132.5°	741.8	786.4
135°	694.1	732.6
137.5°	655.9	687.3
140°	629.5	659.0
142.5°	607.8	633.1
145°	575.2	594.3
147.5°	550.1	565.9
150°	534.4	547.2
152.5°	520.8	530.6
155°	505.4	511.7
157.5°	493.1	497.6
160°	485.7	488.3
162.5°	481.0	483.5
165°	474.1	476.7
167.5°	469.1	470.2
170°	467.7	467.7
172.5°	464.0	463.1
175°	461.8	461.8
177.5°	460.0	458.9
180°	458.9	458.9



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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	6.62	7.64	7.46	8.52	9.61	19.79	20.81	20.63	21.68	22.78
	3H	7.34	8.26	8.19	9.14	10.26	21.63	22.55	22.49	23.44	24.56
	4H	7.64	8.52	8.52	9.41	10.53	22.28	23.15	23.15	24.04	25.17
	6H	7.90	8.71	8.79	9.60	10.75	22.72	23.52	23.60	24.42	25.56
	8H	7.98	8.75	8.87	9.66	10.80	22.84	23.61	23.73	24.52	25.67
	12H	8.00	8.73	8.90	9.64	10.81	22.91	23.64	23.81	24.55	25.72
4H	2H	13.85	14.72	14.72	15.61	16.74	20.08	20.95	20.96	21.84	22.97
	3H	15.43	16.16	16.32	17.08	18.23	22.13	22.87	23.02	23.79	24.93
	4H	15.53	16.20	16.43	17.12	18.29	22.91	23.57	23.81	24.49	25.66
	6H	15.55	16.13	16.47	17.07	18.24	23.45	24.03	24.36	24.97	26.14
	8H	15.53	16.08	16.45	17.01	18.20	23.61	24.16	24.53	25.09	26.28
	12H	15.50	15.99	16.44	16.94	18.13	23.71	24.20	24.65	25.16	26.35
8H	4H	16.99	17.53	17.91	18.46	19.65	22.98	23.52	23.90	24.46	25.64
	6H	17.24	17.69	18.18	18.66	19.85	23.61	24.06	24.56	25.04	26.22
	8H	17.26	17.66	18.21	18.62	19.83	23.83	24.23	24.79	25.20	26.40
	12H	17.23	17.59	18.19	18.54	19.80	23.98	24.33	24.94	25.29	26.54
12H	4H	17.14	17.63	18.08	18.58	19.77	22.94	23.43	23.88	24.38	25.58
	6H	17.50	17.90	18.45	18.86	20.07	23.60	24.00	24.55	24.96	26.17
	8H	17.57	17.93	18.53	18.89	20.14	23.83	24.19	24.79	25.14	26.40