

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: P936852

Luminaire Tested: SQ4-FB-050U-100D-930-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936852
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-930-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

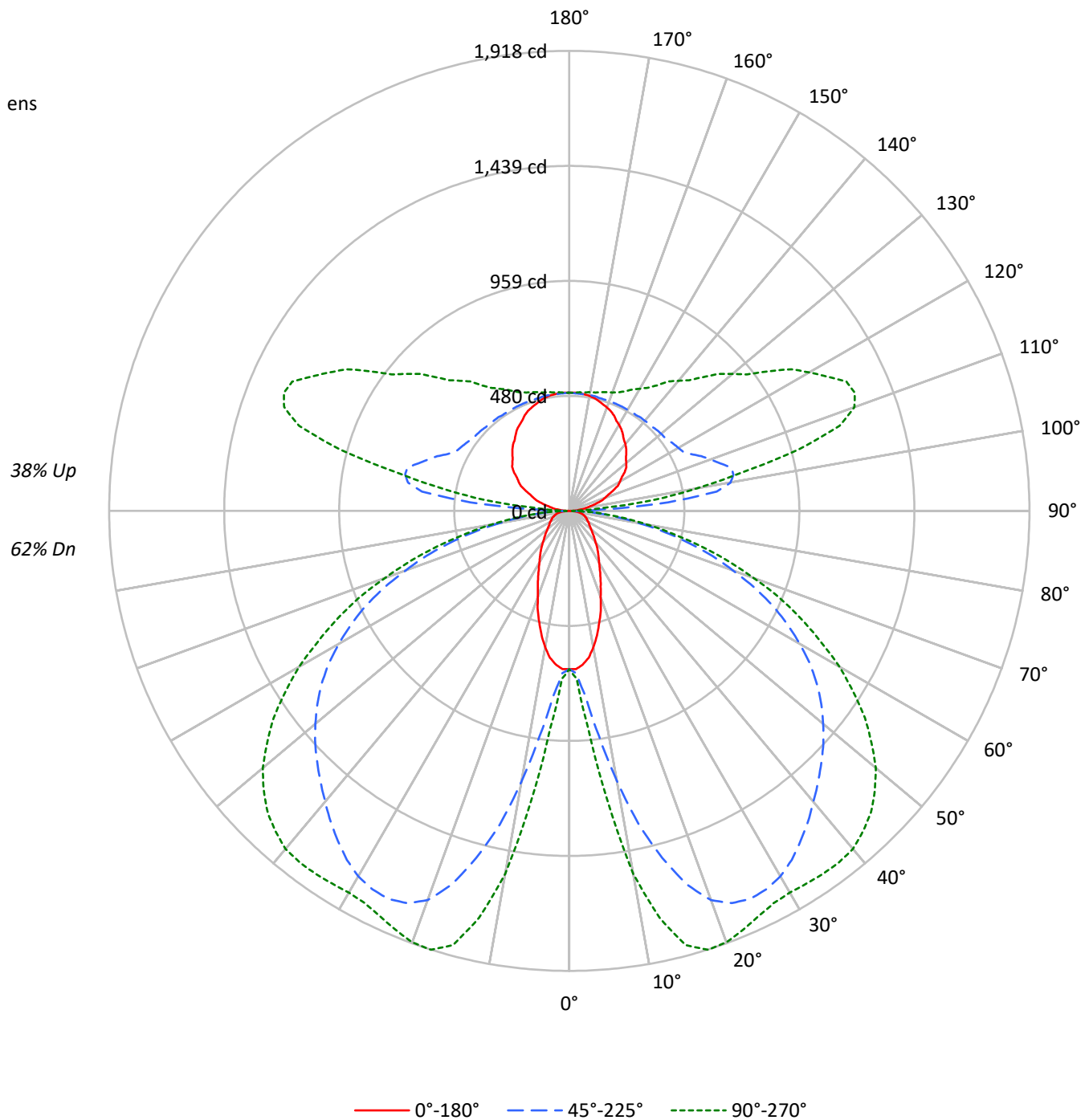
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8304.6 lumens
Efficiency: N/A
Efficacy: 91.9 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): 90.4
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	62
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°	3062	3062	3062
5°	2991	3539	4116
10°	2713	5159	6823
15°	2306	6740	8239
20°	1878	7810	8397
25°	1566	8173	8226
30°	1321	8225	8211
35°	1168	8088	8423
40°	1018	7910	8642
45°	922	7781	8676
50°	845	7664	8532
55°	809	7492	8155
60°	828	7163	7558
65°	862	6663	6737
70°	918	5811	5691
75°	1017	4738	4441
80°	1113	3286	2993
85°	987	1744	1532

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8676 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	1.0
10°-20°	378.4	4.6
20°-30°	661.8	8.0
30°-40°	851.9	10.3
40°-50°	951.6	11.5
50°-60°	911.4	11.0
60°-70°	722.3	8.7
70°-80°	424.7	5.1
80°-90°	119.9	1.4
90°-100°	240.4	2.9
100°-110°	632.1	7.6
110°-120°	655.4	7.9
120°-130°	525.7	6.3
130°-140°	412.5	5.0
140°-150°	316.6	3.8
150°-160°	228.0	2.7
160°-170°	139.5	1.7
170°-180°	47.1	0.6
0°-30°	1125.5	13.6
0°-40°	1977.5	23.8
0°-60°	3840.5	46.2
0°-90°	5107.4	61.5
90°-120°	1527.9	18.4
90°-150°	2782.6	33.5
90°-180°	3197.0	38.5
0°-180°	8304.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	643	690	777	879	910	59
15°	482	889	1498	1816	1874	134
25°	308	1008	1785	1863	1865	142
35°	208	963	1681	1776	1846	130
45°	142	768	1486	1702	1778	110
55°	102	488	1260	1464	1505	93
65°	81	259	936	1053	1067	80
75°	59	159	514	564	567	62
85°	21	49	127	140	142	23
90°	3	9	25	13	13	4
95°	32	124	414	214	145	35
105°	114	172	699	1061	990	121
115°	202	246	560	1116	1274	200
125°	281	315	509	860	1015	250
135°	335	369	493	694	788	259
145°	389	414	487	592	639	244
155°	440	452	487	535	550	202
165°	474	481	487	506	512	134
175°	493	493	490	496	496	47
180°	493	493	493	493	493	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
2.5°	660.0	660.0	664.2	666.3	670.6	672.7	676.9	681.2	694.0	696.0	700.3
5°	643.0	651.5	679.1	689.7	719.4	759.7	776.7	804.3	861.5	878.6	889.2
7.5°	617.5	636.6	704.6	721.5	795.8	901.8	946.4	1005.8	1097.1	1141.7	1177.8
10°	577.2	617.5	738.5	778.8	899.8	1061.0	1143.8	1226.6	1364.5	1426.0	1449.3
12.5°	532.6	598.4	774.6	829.7	1003.8	1239.3	1339.0	1430.3	1587.3	1670.1	1682.8
15°	481.7	570.9	808.5	889.2	1114.1	1387.8	1498.2	1610.7	1757.0	1816.5	1831.3
17.5°	437.2	549.7	840.3	925.2	1199.0	1521.5	1634.0	1727.3	1846.2	1886.5	1897.2
20°	382.0	515.7	861.5	971.9	1288.1	1619.2	1727.3	1799.5	1880.1	1905.6	1909.9
22.5°	341.7	479.6	874.3	988.9	1347.5	1678.6	1769.8	1827.1	1882.3	1890.7	1892.9
25°	307.7	439.2	872.1	1008.0	1398.4	1714.6	1784.7	1827.1	1858.9	1863.2	1863.2
27.5°	275.8	394.7	863.7	1012.3	1436.6	1723.2	1778.3	1808.0	1822.9	1831.3	1831.3
30°	248.3	352.3	842.4	1003.8	1453.6	1714.6	1759.2	1774.1	1788.9	1801.6	1808.0
32.5°	227.1	312.0	810.6	986.7	1455.8	1693.4	1725.2	1733.8	1755.0	1784.7	1795.3
35°	208.0	271.7	774.6	963.4	1443.0	1659.5	1680.7	1689.2	1731.6	1776.2	1791.0
37.5°	188.9	241.9	727.8	923.1	1423.9	1619.2	1634.0	1648.9	1714.6	1767.6	1784.7
40°	169.8	216.5	672.7	878.6	1394.2	1570.3	1583.0	1606.4	1693.4	1755.0	1771.9
42.5°	154.9	195.2	613.3	831.8	1356.0	1515.2	1534.3	1568.2	1667.9	1733.8	1752.9
45°	142.2	174.0	549.7	768.1	1307.2	1457.8	1485.5	1532.1	1638.2	1701.9	1718.9
47.5°	129.4	159.2	483.8	702.4	1254.1	1400.6	1436.6	1489.7	1597.9	1659.5	1674.3
50°	118.8	144.3	418.0	632.4	1196.9	1339.0	1381.5	1436.6	1547.0	1604.3	1623.3
52.5°	110.3	131.5	356.5	562.3	1131.0	1275.3	1324.1	1381.5	1485.5	1540.6	1553.3
55°	101.8	120.9	303.5	488.1	1063.2	1207.5	1260.5	1315.7	1417.5	1464.2	1472.7
57.5°	97.6	112.5	258.9	418.0	991.0	1131.0	1190.4	1241.4	1336.9	1373.0	1381.5
60°	91.2	106.1	224.9	358.6	912.5	1058.9	1109.8	1160.7	1241.4	1271.1	1277.5
62.5°	84.9	101.8	199.5	301.4	831.8	974.0	1024.9	1071.7	1139.5	1160.7	1169.2
65°	80.6	97.6	180.4	258.9	749.1	884.9	935.8	976.1	1031.3	1052.6	1056.8
67.5°	76.4	93.4	165.5	222.8	666.3	795.8	834.0	872.1	914.6	935.8	938.0
70°	70.0	89.1	152.8	197.4	581.5	694.0	725.8	766.1	800.0	810.6	817.0
72.5°	65.8	82.8	144.3	178.3	494.4	596.3	626.0	649.4	679.1	689.7	689.7
75°	59.4	74.3	135.8	159.2	405.4	488.1	513.5	536.9	560.3	564.5	558.1
77.5°	53.1	65.8	116.7	133.7	316.2	386.2	407.4	420.1	439.2	443.5	445.7
80°	44.6	57.3	91.2	104.0	229.2	284.3	299.2	309.8	326.8	326.8	331.1
82.5°	34.0	44.6	65.8	74.3	154.9	195.2	208.0	214.3	224.9	224.9	224.9
85°	21.2	27.6	42.5	48.8	93.4	118.8	127.4	129.4	138.0	140.0	140.0
87.5°	10.6	14.9	27.6	29.7	48.8	61.5	61.5	65.8	65.8	63.7	61.5
90°	3.3	5.9	8.6	9.2	14.5	21.6	25.1	22.3	16.8	12.6	12.6
92.5°	13.2	35.7	58.3	63.9	89.9	124.4	141.6	124.1	89.1	62.9	60.4
95°	31.8	73.0	114.2	124.5	221.0	349.7	414.1	369.5	280.4	213.5	206.0
97.5°	54.9	91.2	127.6	136.7	297.7	512.3	619.7	591.5	535.1	492.9	478.4
100°	72.8	105.8	138.7	146.9	325.6	563.8	682.9	685.0	689.1	692.1	674.9
102.5°	88.1	118.8	149.5	157.2	338.4	580.0	700.8	736.7	808.5	862.3	847.6
105°	113.9	139.9	166.0	172.5	347.9	581.9	698.8	779.2	940.2	1060.9	1053.0
107.5°	140.4	164.6	188.9	195.0	349.6	555.9	659.0	771.3	995.8	1164.2	1166.1
110°	158.2	180.1	202.1	207.6	347.1	533.0	625.9	751.4	1002.4	1190.6	1198.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	175.8	196.7	217.5	222.8	347.1	513.0	595.8	724.2	981.1	1173.7	1186.4
115°	202.3	221.5	240.8	245.6	350.3	490.0	559.8	683.5	930.9	1116.5	1134.0
117.5°	228.4	245.9	263.4	267.8	356.9	475.5	534.9	646.6	869.9	1037.4	1056.8
120°	243.6	260.1	276.6	280.7	362.2	470.7	525.0	627.0	831.0	984.1	1002.9
122.5°	258.5	275.1	291.7	295.9	369.7	468.1	517.4	609.2	793.0	930.8	949.5
125°	281.4	296.5	311.6	315.4	380.0	466.1	509.1	587.2	743.3	860.3	877.5
127.5°	299.9	315.2	330.4	334.3	390.3	464.9	502.1	569.2	703.2	803.7	818.2
130°	309.8	326.3	342.8	346.9	397.7	465.6	499.5	559.1	678.5	767.9	781.3
132.5°	320.1	336.5	353.1	357.2	403.8	466.1	497.2	550.6	657.4	737.5	749.4
135°	335.3	350.3	365.3	369.1	410.4	465.6	493.2	537.9	627.4	694.4	704.8
137.5°	350.9	365.8	380.6	384.3	420.4	468.5	492.6	530.4	606.0	662.7	671.1
140°	363.8	377.5	391.1	394.6	426.5	469.0	490.2	522.9	588.2	637.2	645.0
142.5°	373.7	386.3	399.0	402.1	431.5	470.6	490.2	518.9	576.3	619.4	626.2
145°	389.0	400.0	411.1	413.8	438.2	470.7	486.9	510.4	557.4	592.5	597.7
147.5°	404.1	414.9	425.7	428.3	447.8	473.9	486.9	505.4	542.3	570.0	574.2
150°	414.1	423.8	433.5	435.9	453.0	475.6	486.9	502.5	533.8	557.1	560.6
152.5°	424.4	431.8	439.1	440.9	456.3	476.7	486.9	500.3	526.8	546.8	549.5
155°	439.6	445.0	450.5	451.8	463.6	479.2	486.9	497.5	518.7	534.6	536.3
157.5°	450.8	456.1	461.4	462.8	470.8	481.6	486.9	495.1	511.6	524.0	525.2
160°	458.4	462.6	466.7	467.7	474.2	482.7	486.9	494.0	508.1	518.7	519.4
162.5°	466.1	469.2	472.2	473.0	477.7	483.9	486.9	492.9	504.8	513.8	514.4
165°	474.3	477.1	479.9	480.6	482.7	485.5	486.9	491.2	499.7	506.1	506.9
167.5°	482.0	483.2	484.6	484.9	486.7	489.0	490.2	493.0	498.7	502.8	503.2
170°	486.9	488.2	489.6	489.9	490.0	490.2	490.2	493.0	498.7	502.8	502.8
172.5°	489.6	489.9	490.2	490.2	490.2	490.2	490.2	492.5	496.9	500.2	499.9
175°	493.2	493.2	493.2	493.2	492.2	490.9	490.2	491.6	494.4	496.5	496.5
177.5°	493.2	493.2	493.2	493.2	492.4	491.4	490.9	492.0	494.2	495.9	495.5
180°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	660.0	660.0
2.5°	704.6	700.3
5°	906.1	910.4
7.5°	1220.2	1218.1
10°	1517.3	1536.4
12.5°	1733.8	1738.0
15°	1865.3	1873.8
17.5°	1916.2	1918.4
20°	1918.4	1914.1
22.5°	1895.0	1890.7
25°	1867.5	1865.3
27.5°	1841.9	1844.1
30°	1831.3	1837.7
32.5°	1831.3	1841.9
35°	1835.6	1846.2
37.5°	1833.5	1846.2
40°	1825.0	1839.8
42.5°	1801.6	1812.2
45°	1765.6	1778.3
47.5°	1718.9	1727.3
50°	1659.5	1667.9
52.5°	1585.2	1587.3
55°	1496.1	1504.6
57.5°	1400.6	1402.7
60°	1294.4	1300.9
62.5°	1182.0	1182.0
65°	1063.2	1067.4
67.5°	940.1	950.7
70°	814.9	817.0
72.5°	691.8	691.8
75°	564.5	566.6
77.5°	443.5	443.5
80°	328.9	331.1
82.5°	227.1	231.3
85°	142.2	142.2
87.5°	65.8	59.4
90°	12.6	12.6
92.5°	50.3	40.4
95°	175.6	145.3
97.5°	420.8	363.1
100°	606.3	537.5
102.5°	788.7	729.8
105°	1021.3	989.7
107.5°	1173.7	1181.4
110°	1231.8	1264.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1237.0	1287.6
115°	1204.2	1274.4
117.5°	1134.7	1212.5
120°	1078.6	1154.2
122.5°	1024.1	1098.7
125°	946.2	1014.9
127.5°	876.2	934.1
130°	834.9	888.4
132.5°	797.5	845.4
135°	746.1	787.5
137.5°	705.0	738.8
140°	676.7	708.3
142.5°	653.3	680.5
145°	618.3	638.9
147.5°	591.3	608.4
150°	574.4	588.2
152.5°	559.9	570.4
155°	543.2	550.1
157.5°	530.1	534.9
160°	522.2	525.0
162.5°	517.1	519.7
165°	509.6	512.4
167.5°	504.3	505.5
170°	502.8	502.8
172.5°	498.9	497.9
175°	496.5	496.5
177.5°	494.4	493.2
180°	493.2	493.2



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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	5.88	6.90	6.72	7.77	8.87	19.06	20.08	19.90	20.95	22.05
	3H	6.59	7.52	7.45	8.40	9.52	20.91	21.83	21.76	22.71	23.83
	4H	6.90	7.77	7.77	8.66	9.79	21.56	22.43	22.43	23.32	24.45
	6H	7.16	7.97	8.04	8.86	10.01	22.00	22.81	22.88	23.70	24.84
	8H	7.23	8.00	8.12	8.92	10.06	22.12	22.89	23.02	23.81	24.95
	12H	7.26	7.99	8.15	8.90	10.07	22.20	22.93	23.10	23.84	25.01
4H	2H	13.11	13.99	13.99	14.87	16.00	19.35	20.22	20.23	21.11	22.24
	3H	14.69	15.43	15.58	16.35	17.49	21.41	22.14	22.30	23.06	24.21
	4H	14.80	15.47	15.70	16.38	17.55	22.18	22.85	23.08	23.77	24.94
	6H	14.82	15.40	15.73	16.34	17.51	22.73	23.31	23.65	24.25	25.42
	8H	14.80	15.34	15.72	16.27	17.46	22.90	23.44	23.82	24.38	25.56
	12H	14.76	15.25	15.70	16.20	17.40	23.00	23.49	23.94	24.44	25.64
8H	4H	16.26	16.80	17.17	17.73	18.92	22.26	22.80	23.18	23.73	24.92
	6H	16.50	16.96	17.45	17.93	19.12	22.90	23.35	23.84	24.32	25.51
	8H	16.53	16.92	17.48	17.89	19.09	23.12	23.52	24.07	24.48	25.69
	12H	16.50	16.85	17.46	17.81	19.06	23.27	23.62	24.23	24.58	25.83
12H	4H	16.41	16.90	17.34	17.85	19.04	22.22	22.71	23.16	23.66	24.85
	6H	16.77	17.17	17.72	18.13	19.33	22.88	23.28	23.83	24.25	25.45
	8H	16.84	17.20	17.80	18.15	19.41	23.12	23.47	24.08	24.43	25.68