

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: P936824

Luminaire Tested: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936824
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-927-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

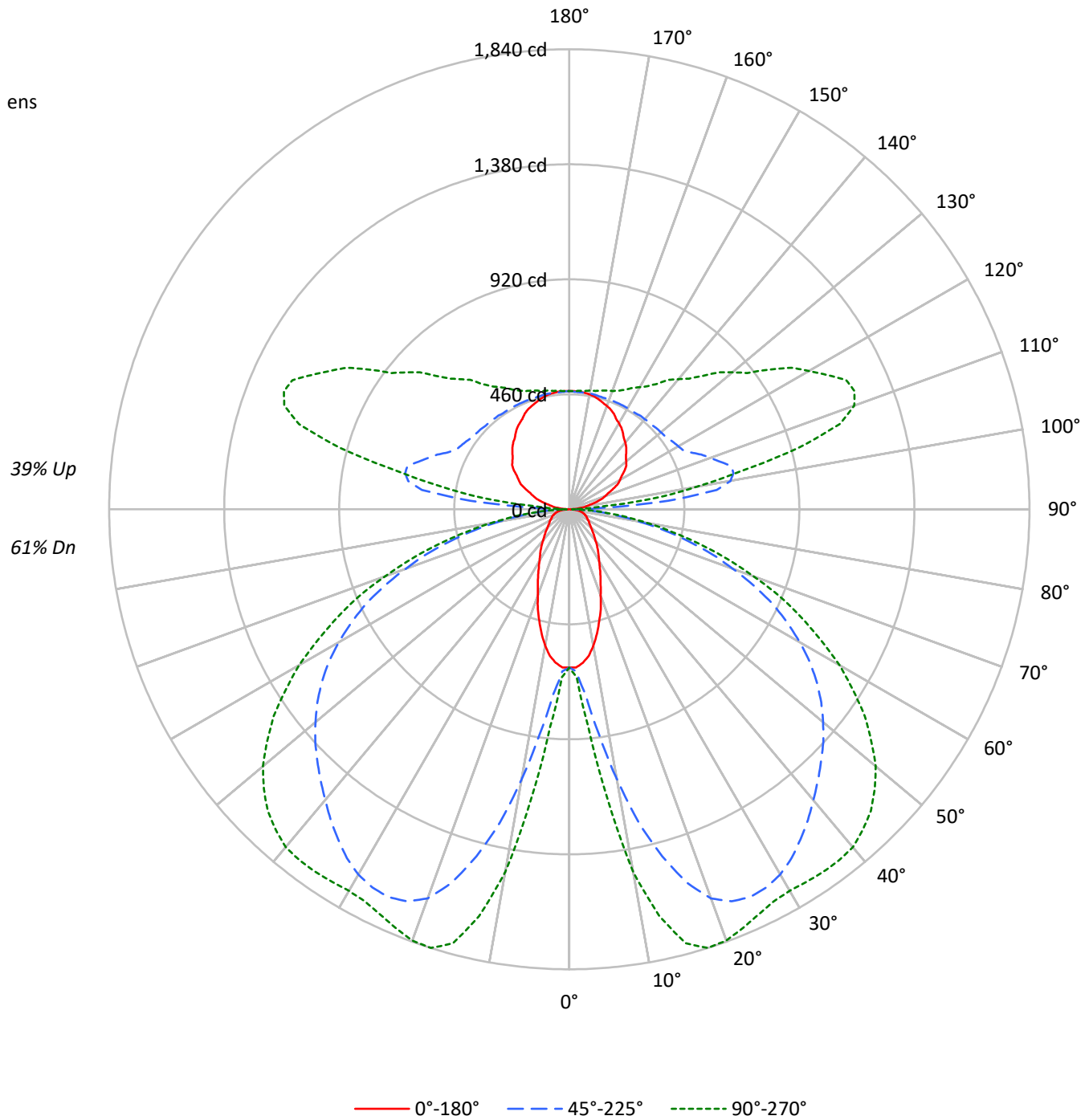
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7963.4 lumens
Efficiency: N/A
Efficacy: 88.1 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

TEST NUMBER: P936824
CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P936824

CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2936	2936	2936
5°	2868	3393	3946
10°	2602	4947	6543
15°	2211	6463	7901
20°	1800	7489	8052
25°	1502	7837	7888
30°	1266	7887	7873
35°	1120	7756	8077
40°	976	7586	8287
45°	884	7461	8320
50°	811	7349	8182
55°	776	7185	7819
60°	795	6869	7247
65°	826	6390	6460
70°	880	5572	5457
75°	976	4543	4259
80°	1065	3151	2870
85°	946	1672	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8320 cd/sqm



TEST NUMBER: P936824

CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	1.0
10°-20°	362.8	4.6
20°-30°	634.6	8.0
30°-40°	816.9	10.3
40°-50°	912.5	11.5
50°-60°	873.9	11.0
60°-70°	692.6	8.7
70°-80°	407.3	5.1
80°-90°	115.0	1.4
90°-100°	230.5	2.9
100°-110°	606.1	7.6
110°-120°	628.5	7.9
120°-130°	504.1	6.3
130°-140°	395.5	5.0
140°-150°	303.6	3.8
150°-160°	218.6	2.7
160°-170°	133.8	1.7
170°-180°	45.2	0.6
0°-30°	1079.3	13.6
0°-40°	1896.2	23.8
0°-60°	3682.6	46.2
0°-90°	4897.5	61.5
90°-120°	1465.1	18.4
90°-150°	2668.3	33.5
90°-180°	3066.0	38.5
0°-180°	7963.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	616	661	745	842	873	57
15°	462	853	1437	1742	1797	129
25°	295	967	1711	1787	1789	136
35°	199	924	1612	1703	1770	125
45°	136	737	1424	1632	1705	105
55°	98	468	1209	1404	1443	89
65°	77	248	897	1009	1024	77
75°	57	153	492	541	543	60
85°	20	47	122	134	136	22
90°	3	9	24	12	12	4
95°	30	119	397	205	139	34
105°	109	165	670	1017	949	116
115°	194	236	537	1071	1222	192
125°	270	302	488	825	973	240
135°	322	354	473	666	755	249
145°	373	397	467	568	613	234
155°	422	433	467	513	528	194
165°	455	461	467	485	491	128
175°	473	473	470	476	476	45
180°	473	473	473	473	473	



TEST NUMBER: P936824

CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9
2.5°	632.9	632.9	636.9	638.9	643.0	645.0	649.1	653.2	665.4	667.4	671.5
5°	616.5	624.7	651.2	661.4	689.8	728.5	744.7	771.2	826.1	842.5	852.6
7.5°	592.1	610.5	675.6	691.8	763.1	864.8	907.5	964.5	1052.1	1094.8	1129.4
10°	553.5	592.1	708.2	746.8	862.8	1017.4	1096.8	1176.2	1308.4	1367.4	1389.8
12.5°	510.7	573.8	742.7	795.6	962.5	1188.3	1284.0	1371.5	1522.1	1601.4	1613.6
15°	461.9	547.4	775.3	852.6	1068.3	1330.8	1436.6	1544.5	1684.8	1741.8	1756.1
17.5°	419.2	527.1	805.8	887.2	1149.7	1459.0	1566.9	1656.3	1770.3	1809.0	1819.2
20°	366.3	494.5	826.1	931.9	1235.2	1552.6	1656.3	1725.6	1802.9	1827.3	1831.4
22.5°	327.6	459.8	838.4	948.3	1292.1	1609.6	1697.1	1752.0	1805.0	1813.0	1815.1
25°	295.1	421.2	836.3	966.6	1341.0	1644.2	1711.3	1752.0	1782.6	1786.6	1786.6
27.5°	264.5	378.5	828.2	970.7	1377.6	1652.3	1705.2	1733.7	1748.0	1756.1	1756.1
30°	238.1	337.8	807.8	962.5	1393.9	1644.2	1686.9	1701.2	1715.4	1727.6	1733.7
32.5°	217.8	299.1	777.3	946.2	1395.9	1623.9	1654.3	1662.5	1682.8	1711.3	1721.5
35°	199.4	260.5	742.7	923.8	1383.7	1591.3	1611.6	1619.8	1660.4	1703.2	1717.4
37.5°	181.1	232.0	697.9	885.2	1365.4	1552.6	1566.9	1581.1	1644.2	1695.0	1711.3
40°	162.8	207.6	645.0	842.5	1336.9	1505.8	1518.0	1540.4	1623.9	1682.8	1699.1
42.5°	148.5	187.2	588.0	797.6	1300.3	1452.9	1471.2	1503.7	1599.4	1662.5	1680.8
45°	136.4	166.9	527.1	736.6	1253.5	1397.9	1424.4	1469.2	1570.9	1631.9	1648.3
47.5°	124.1	152.6	463.9	673.5	1202.6	1343.0	1377.6	1428.5	1532.2	1591.3	1605.5
50°	114.0	138.4	400.9	606.4	1147.7	1284.0	1324.7	1377.6	1483.4	1538.4	1556.6
52.5°	105.8	126.1	341.9	539.2	1084.5	1222.9	1269.7	1324.7	1424.4	1477.3	1489.5
55°	97.6	116.0	291.0	468.0	1019.5	1157.8	1208.7	1261.6	1359.3	1404.0	1412.2
57.5°	93.6	107.9	248.2	400.9	950.3	1084.5	1141.5	1190.4	1282.0	1316.5	1324.7
60°	87.5	101.7	215.7	343.9	875.0	1015.4	1064.2	1113.0	1190.4	1218.9	1225.0
62.5°	81.4	97.6	191.3	289.0	797.6	934.0	982.8	1027.6	1092.7	1113.0	1121.2
65°	77.3	93.6	172.9	248.2	718.3	848.5	897.4	936.0	988.9	1009.3	1013.4
67.5°	73.2	89.6	158.7	213.7	638.9	763.1	799.7	836.3	877.0	897.4	899.4
70°	67.1	85.5	146.5	189.3	557.6	665.4	695.9	734.6	767.2	777.3	783.4
72.5°	63.1	79.4	138.4	170.9	474.1	571.8	600.3	622.7	651.2	661.4	661.4
75°	57.0	71.2	130.2	152.6	388.7	468.0	492.4	514.8	537.2	541.3	535.2
77.5°	50.9	63.1	111.9	128.2	303.2	370.4	390.7	402.9	421.2	425.3	427.4
80°	42.7	55.0	87.5	99.7	219.8	272.7	286.9	297.1	313.4	313.4	317.5
82.5°	32.6	42.7	63.1	71.2	148.5	187.2	199.4	205.5	215.7	215.7	215.7
85°	20.3	26.5	40.7	46.8	89.6	114.0	122.1	124.1	132.3	134.3	134.3
87.5°	10.2	14.2	26.5	28.5	46.8	59.0	59.0	63.1	63.1	61.1	59.0
90°	3.2	5.7	8.2	8.9	13.9	20.7	24.1	21.4	16.1	12.1	12.1
92.5°	12.7	34.3	55.9	61.3	86.2	119.3	135.8	119.0	85.5	60.3	57.9
95°	30.5	70.0	109.5	119.4	211.9	335.3	397.1	354.4	268.9	204.7	197.5
97.5°	52.7	87.5	122.4	131.1	285.4	491.3	594.2	567.2	513.1	472.6	458.8
100°	69.8	101.4	133.0	140.9	312.2	540.6	654.8	656.8	660.7	663.7	647.2
102.5°	84.5	114.0	143.4	150.8	324.5	556.2	672.0	706.4	775.2	826.8	812.7
105°	109.2	134.1	159.2	165.4	333.6	557.9	670.1	747.2	901.6	1017.3	1009.7
107.5°	134.6	157.8	181.1	187.0	335.3	533.1	631.9	739.6	954.9	1116.3	1118.2
110°	151.7	172.7	193.8	199.0	332.8	511.0	600.2	720.6	961.2	1141.7	1149.6



TEST NUMBER: P936824

CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	168.6	188.6	208.6	213.6	332.9	491.9	571.3	694.5	940.8	1125.5	1137.7
115°	194.0	212.4	230.9	235.5	336.0	469.9	536.8	655.4	892.7	1070.6	1087.4
117.5°	219.0	235.8	252.6	256.8	342.2	456.0	512.9	620.0	834.1	994.8	1013.4
120°	233.6	249.4	265.3	269.2	347.3	451.4	503.4	601.2	796.9	943.6	961.7
122.5°	247.9	263.8	279.7	283.7	354.5	448.9	496.1	584.2	760.5	892.6	910.4
125°	269.8	284.3	298.8	302.5	364.4	446.9	488.2	563.0	712.7	825.0	841.5
127.5°	287.6	302.2	316.9	320.6	374.2	445.8	481.5	545.8	674.3	770.7	784.6
130°	297.1	312.9	328.7	332.6	381.4	446.4	478.9	536.2	650.6	736.4	749.2
132.5°	306.9	322.7	338.6	342.5	387.2	446.9	476.8	528.0	630.4	707.2	718.6
135°	321.6	336.0	350.3	353.9	393.5	446.4	472.9	515.8	601.6	665.9	675.8
137.5°	336.5	350.7	365.0	368.5	403.1	449.2	472.3	508.6	581.1	635.5	643.6
140°	348.8	362.0	375.1	378.4	408.9	449.7	470.1	501.4	564.0	611.0	618.5
142.5°	358.4	370.4	382.6	385.6	413.8	451.3	470.1	497.6	552.6	593.9	600.4
145°	373.0	383.5	394.2	396.8	420.2	451.4	466.9	489.4	534.5	568.2	573.1
147.5°	387.5	397.9	408.2	410.7	429.4	454.5	466.9	484.6	520.0	546.5	550.6
150°	397.1	406.4	415.7	418.0	434.4	456.1	466.9	481.9	511.8	534.2	537.5
152.5°	406.9	414.0	421.0	422.8	437.5	457.1	466.9	479.7	505.2	524.4	526.9
155°	421.5	426.7	432.0	433.3	444.5	459.5	466.9	477.1	497.3	512.6	514.3
157.5°	432.3	437.4	442.4	443.8	451.5	461.8	466.9	474.8	490.6	502.4	503.6
160°	439.6	443.6	447.5	448.5	454.7	462.8	466.9	473.7	487.2	497.3	498.0
162.5°	446.9	449.9	452.8	453.6	458.1	464.0	466.9	472.6	484.1	492.6	493.3
165°	454.8	457.5	460.2	460.8	462.8	465.5	466.9	471.0	479.2	485.3	486.0
167.5°	462.2	463.4	464.7	465.0	466.7	468.9	470.1	472.8	478.2	482.2	482.5
170°	466.9	468.2	469.5	469.8	469.9	470.0	470.1	472.8	478.2	482.2	482.2
172.5°	469.5	469.8	470.0	470.1	470.1	470.1	470.1	472.2	476.5	479.6	479.4
175°	472.9	472.9	472.9	472.9	472.0	470.7	470.1	471.4	474.1	476.1	476.1
177.5°	472.9	472.9	472.9	472.9	472.2	471.2	470.7	471.8	473.9	475.5	475.2
180°	472.9	472.9	472.9	472.9	472.9	472.9	472.9	472.9	472.9	472.9	472.9



TEST NUMBER: P936824

CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	632.9	632.9
2.5°	675.6	671.5
5°	868.9	872.9
7.5°	1170.0	1168.0
10°	1454.9	1473.2
12.5°	1662.5	1666.6
15°	1788.6	1796.8
17.5°	1837.5	1839.5
20°	1839.5	1835.4
22.5°	1817.1	1813.0
25°	1790.7	1788.6
27.5°	1766.2	1768.3
30°	1756.1	1762.2
32.5°	1756.1	1766.2
35°	1760.1	1770.3
37.5°	1758.1	1770.3
40°	1750.0	1764.2
42.5°	1727.6	1737.7
45°	1693.0	1705.2
47.5°	1648.3	1656.3
50°	1591.3	1599.4
52.5°	1520.1	1522.1
55°	1434.6	1442.7
57.5°	1343.0	1345.0
60°	1241.2	1247.4
62.5°	1133.4	1133.4
65°	1019.5	1023.6
67.5°	901.4	911.6
70°	781.4	783.4
72.5°	663.4	663.4
75°	541.3	543.3
77.5°	425.3	425.3
80°	315.4	317.5
82.5°	217.8	221.8
85°	136.4	136.4
87.5°	63.1	57.0
90°	12.1	12.1
92.5°	48.3	38.7
95°	168.4	139.4
97.5°	403.5	348.2
100°	581.4	515.4
102.5°	756.3	699.9
105°	979.4	949.0
107.5°	1125.5	1132.8
110°	1181.2	1212.8



TEST NUMBER: P936824

CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1186.2	1234.7
115°	1154.7	1222.0
117.5°	1088.1	1162.7
120°	1034.3	1106.8
122.5°	982.0	1053.5
125°	907.3	973.2
127.5°	840.1	895.7
130°	800.6	851.9
132.5°	764.7	810.7
135°	715.5	755.1
137.5°	676.1	708.5
140°	648.9	679.2
142.5°	626.5	652.6
145°	592.9	612.6
147.5°	567.0	583.4
150°	550.8	564.0
152.5°	536.9	546.9
155°	520.9	527.5
157.5°	508.3	512.9
160°	500.7	503.4
162.5°	495.8	498.3
165°	488.6	491.3
167.5°	483.6	484.7
170°	482.2	482.2
172.5°	478.4	477.4
175°	476.1	476.1
177.5°	474.1	472.9
180°	472.9	472.9



TEST NUMBER: P936824
 CATALOG NUMBER: SQ4-FB-050U-100D-927-1D-UNV-STD-W-8

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	5.73	6.75	6.57	7.63	8.72	18.91	19.93	19.75	20.81	21.90
	3H	6.45	7.37	7.30	8.25	9.37	20.76	21.68	21.62	22.57	23.68
	4H	6.75	7.63	7.63	8.52	9.65	21.41	22.29	22.28	23.18	24.30
	6H	7.01	7.82	7.90	8.72	9.86	21.85	22.66	22.74	23.55	24.70
	8H	7.09	7.86	7.98	8.77	9.91	21.98	22.75	22.87	23.66	24.80
	12H	7.11	7.84	8.01	8.75	9.92	22.05	22.79	22.95	23.69	24.86
4H	2H	12.97	13.84	13.84	14.73	15.86	19.20	20.08	20.08	20.96	22.09
	3H	14.55	15.28	15.44	16.20	17.35	21.26	22.00	22.15	22.92	24.06
	4H	14.65	15.32	15.55	16.23	17.41	22.04	22.71	22.94	23.62	24.79
	6H	14.67	15.25	15.59	16.19	17.36	22.59	23.17	23.50	24.11	25.28
	8H	14.65	15.19	15.57	16.13	17.32	22.75	23.30	23.67	24.23	25.42
	12H	14.62	15.11	15.56	16.06	17.25	22.86	23.35	23.79	24.30	25.49
8H	4H	16.11	16.65	17.03	17.59	18.77	22.11	22.65	23.03	23.59	24.78
	6H	16.36	16.81	17.30	17.78	18.97	22.75	23.20	23.69	24.18	25.36
	8H	16.38	16.78	17.33	17.74	18.95	22.97	23.37	23.93	24.34	25.54
	12H	16.36	16.71	17.31	17.67	18.92	23.12	23.48	24.08	24.44	25.69
12H	4H	16.26	16.75	17.20	17.70	18.90	22.07	22.56	23.01	23.52	24.71
	6H	16.62	17.02	17.57	17.99	19.19	22.74	23.13	23.69	24.10	25.30
	8H	16.70	17.05	17.66	18.01	19.26	22.97	23.33	23.93	24.28	25.54