

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: P936447

Luminaire Tested: SQ4-FB-025U-100D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

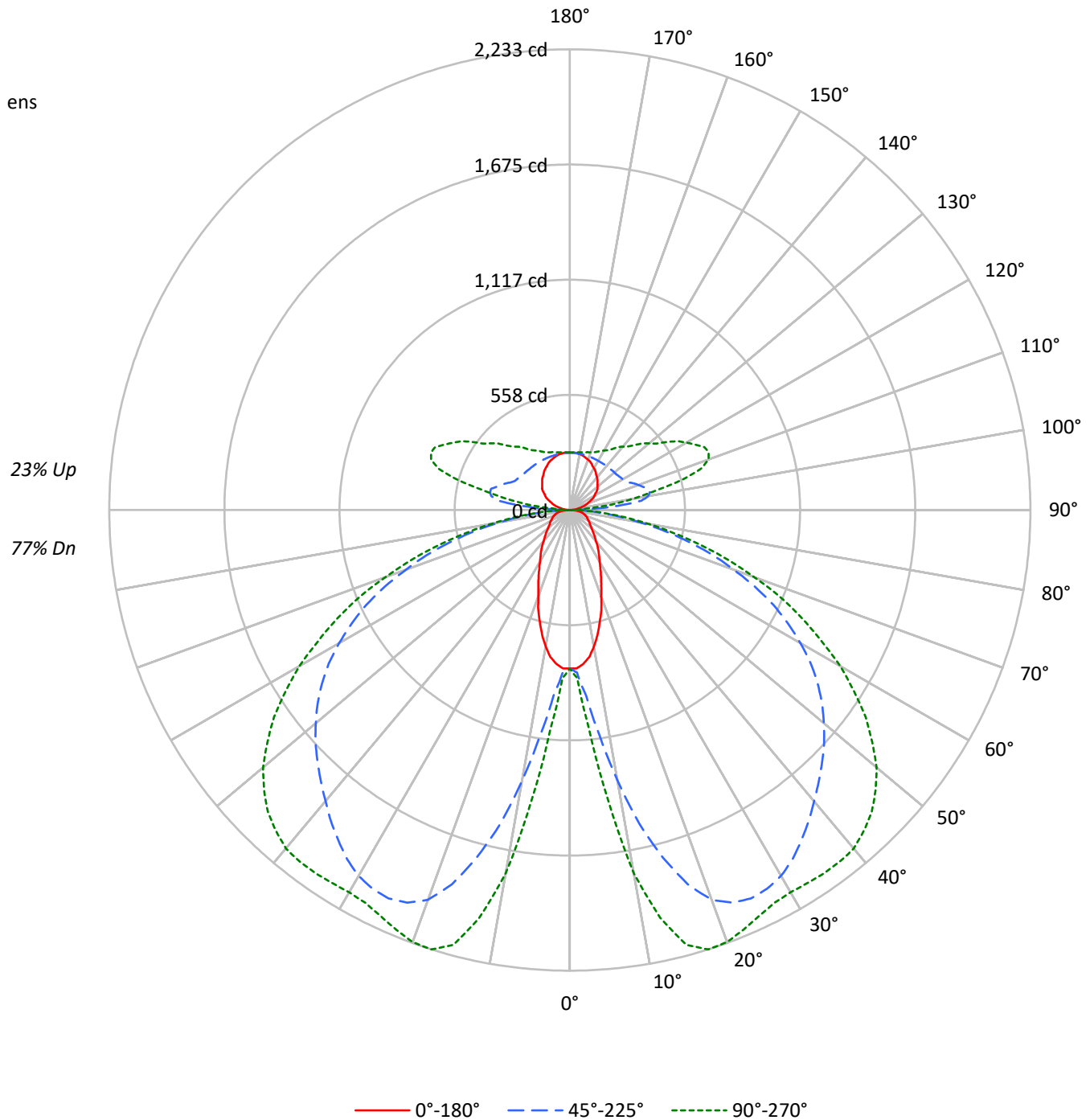
Test Method: LM-79-2019  
Report Number: P936447  
REPORT IS A COMBINATION OF REPORTS P933455 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-100D-92765-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7752.5 lumens  
Efficiency: N/A  
Efficacy: 99.9 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): 77.6  
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

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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	20	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°	3564	3564	3564
5°	3482	4119	4791
10°	3158	6005	7943
15°	2684	7845	9590
20°	2185	9091	9774
25°	1823	9514	9575
30°	1537	9574	9558
35°	1359	9415	9804
40°	1184	9208	10060
45°	1073	9057	10100
50°	984	8921	9932
55°	942	8721	9492
60°	965	8339	8797
65°	1003	7756	7842
70°	1069	6764	6625
75°	1185	5514	5170
80°	1295	3825	3484
85°	1150	2029	1783

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10100 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.4	1.3
10°-20°	440.4	5.7
20°-30°	770.4	9.9
30°-40°	991.7	12.8
40°-50°	1107.7	14.3
50°-60°	1060.9	13.7
60°-70°	840.8	10.8
70°-80°	494.4	6.4
80°-90°	138.4	1.8
90°-100°	136.0	1.8
100°-110°	357.5	4.6
110°-120°	370.7	4.8
120°-130°	297.4	3.8
130°-140°	233.3	3.0
140°-150°	179.1	2.3
150°-160°	129.0	1.7
160°-170°	78.9	1.0
170°-180°	26.7	0.3
0°-30°	1310.1	16.9
0°-40°	2301.8	29.7
0°-60°	4470.4	57.7
0°-90°	5943.9	76.7
90°-120°	864.2	11.1
90°-150°	1574.0	20.3
90°-180°	1809.0	23.3
0°-180°	7752.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	803	904	1023	1060	69
15°	561	1035	1744	2114	2181	156
25°	358	1173	2077	2169	2171	165
35°	242	1122	1956	2068	2149	151
45°	166	894	1729	1981	2070	128
55°	118	568	1467	1704	1751	108
65°	94	301	1089	1225	1242	93
75°	69	185	598	657	660	72
85°	25	57	148	163	166	26
90°	2	5	14	7	7	3
95°	18	70	234	121	82	20
105°	64	98	395	600	560	68
115°	114	139	317	632	721	113
125°	159	178	288	487	574	141
135°	190	209	279	393	445	147
145°	220	234	276	335	361	138
155°	249	256	276	302	311	114
165°	268	272	276	286	290	76
175°	279	279	277	281	281	26
180°	279	279	279	279	279	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2
2.5°	768.2	768.2	773.2	775.6	780.6	783.0	788.0	792.9	807.8	810.2	815.2
5°	748.4	758.3	790.5	802.8	837.4	884.3	904.0	936.2	1002.8	1022.7	1035.0
7.5°	718.8	741.0	820.1	839.8	926.3	1049.8	1101.6	1170.8	1277.1	1329.0	1370.9
10°	671.9	718.8	859.6	906.6	1047.3	1235.0	1331.4	1427.8	1588.3	1659.9	1687.1
12.5°	620.0	696.5	901.6	965.8	1168.4	1442.5	1558.6	1664.9	1847.6	1944.0	1958.8
15°	560.7	664.5	941.2	1035.0	1296.8	1615.5	1743.9	1874.8	2045.2	2114.4	2131.7
17.5°	508.9	639.8	978.2	1077.0	1395.6	1771.1	1902.0	2010.6	2149.0	2195.9	2208.3
20°	444.6	600.3	1002.8	1131.3	1499.4	1884.7	2010.6	2094.7	2188.5	2218.2	2223.1
22.5°	397.7	558.2	1017.7	1151.1	1568.5	1953.9	2060.1	2126.7	2191.0	2200.9	2203.4
25°	358.2	511.3	1015.2	1173.3	1627.8	1995.9	2077.4	2126.7	2163.8	2168.8	2168.8
27.5°	321.1	459.4	1005.4	1178.3	1672.3	2005.8	2070.0	2104.6	2121.9	2131.7	2131.7
30°	289.0	410.1	980.6	1168.4	1692.0	1995.9	2047.8	2065.0	2082.3	2097.1	2104.6
32.5°	264.3	363.1	943.6	1148.6	1694.5	1971.2	2008.2	2018.1	2042.8	2077.4	2089.7
35°	242.1	316.2	901.6	1121.5	1679.7	1931.7	1956.3	1966.2	2015.6	2067.5	2084.8
37.5°	219.8	281.6	847.2	1074.5	1657.4	1884.7	1902.0	1919.3	1995.9	2057.6	2077.4
40°	197.6	252.0	783.0	1022.7	1622.8	1827.9	1842.7	1869.9	1971.2	2042.8	2062.5
42.5°	180.3	227.2	713.8	968.3	1578.4	1763.7	1785.9	1825.4	1941.5	2018.1	2040.4
45°	165.5	202.6	639.8	894.1	1521.6	1697.0	1729.1	1783.4	1906.9	1981.0	2000.8
47.5°	150.7	185.3	563.2	817.6	1459.8	1630.3	1672.3	1734.1	1860.0	1931.7	1949.0
50°	138.3	168.0	486.6	736.1	1393.2	1558.6	1608.1	1672.3	1800.7	1867.4	1889.6
52.5°	128.4	153.1	415.0	654.6	1316.5	1484.5	1541.3	1608.1	1729.1	1793.3	1808.1
55°	118.5	140.8	353.2	568.1	1237.6	1405.5	1467.2	1531.5	1650.0	1704.3	1714.3
57.5°	113.7	131.0	301.3	486.6	1153.5	1316.5	1385.7	1445.1	1556.2	1598.2	1608.1
60°	106.2	123.5	261.8	417.4	1062.2	1232.6	1291.9	1351.1	1445.1	1479.6	1487.0
62.5°	98.8	118.5	232.2	350.8	968.3	1133.8	1193.1	1247.5	1326.4	1351.1	1361.0
65°	93.8	113.7	209.9	301.3	872.0	1030.0	1089.3	1136.2	1200.4	1225.2	1230.2
67.5°	88.9	108.7	192.6	259.4	775.6	926.3	970.8	1015.2	1064.6	1089.3	1091.8
70°	81.5	103.8	177.9	229.8	676.8	807.8	844.8	891.7	931.2	943.6	951.0
72.5°	76.6	96.4	168.0	207.5	575.5	694.1	728.7	755.9	790.5	802.8	802.8
75°	69.2	86.5	158.1	185.3	471.8	568.1	597.7	624.9	652.1	657.1	649.6
77.5°	61.8	76.6	135.8	155.6	368.1	449.6	474.3	489.0	511.3	516.2	518.8
80°	51.9	66.7	106.2	121.0	266.8	331.0	348.3	360.6	380.4	380.4	385.4
82.5°	39.5	51.9	76.6	86.5	180.3	227.2	242.1	249.5	261.8	261.8	261.8
85°	24.7	32.2	49.4	56.8	108.7	138.3	148.2	150.7	160.6	163.0	163.0
87.5°	12.3	17.3	32.2	34.6	56.8	71.6	71.6	76.6	76.6	74.1	71.6
90°	1.9	3.4	4.9	5.2	8.2	12.2	14.2	12.6	9.4	7.1	7.1
92.5°	7.5	20.2	33.0	36.2	50.8	70.4	80.1	70.2	50.5	35.6	34.2
95°	17.9	41.2	64.6	70.4	125.0	197.8	234.2	209.0	158.6	120.8	116.5
97.5°	31.1	51.7	72.2	77.3	168.3	289.8	350.5	334.6	302.8	278.8	270.7
100°	41.2	59.8	78.4	83.1	184.1	318.8	386.2	387.4	389.8	391.5	381.8
102.5°	49.8	67.2	84.6	88.9	191.4	328.1	396.4	416.7	457.3	487.7	479.4
105°	64.4	79.2	93.9	97.6	196.8	329.1	395.3	440.8	531.8	600.1	595.6
107.5°	79.4	93.1	106.8	110.3	197.8	314.4	372.8	436.2	563.3	658.5	659.6
110°	89.5	101.9	114.3	117.4	196.3	301.4	354.1	425.0	567.0	673.5	678.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	99.5	111.2	123.0	126.0	196.4	290.1	337.1	409.7	554.9	663.9	671.1
115°	114.4	125.3	136.2	138.9	198.2	277.1	316.6	386.6	526.6	631.6	641.5
117.5°	129.2	139.1	149.0	151.5	201.9	269.0	302.6	365.8	492.0	586.8	597.8
120°	137.8	147.1	156.5	158.8	204.9	266.3	297.0	354.6	470.1	556.6	567.3
122.5°	146.2	155.6	165.1	167.4	209.2	264.8	292.7	344.6	448.6	526.5	537.1
125°	159.2	167.8	176.3	178.4	215.0	263.7	288.0	332.1	420.4	486.6	496.3
127.5°	169.6	178.2	186.9	189.1	220.8	262.9	284.1	322.0	397.8	454.6	462.9
130°	175.3	184.6	193.9	196.2	225.0	263.4	282.6	316.3	383.8	434.4	441.9
132.5°	181.1	190.4	199.7	202.0	228.4	263.7	281.3	311.4	371.8	417.2	424.0
135°	189.7	198.2	206.7	208.8	232.2	263.4	279.0	304.3	354.9	392.9	398.7
137.5°	198.4	206.9	215.3	217.4	237.8	265.0	278.6	300.0	342.8	374.8	379.6
140°	205.7	213.5	221.2	223.2	241.2	265.3	277.3	295.8	332.8	360.4	364.9
142.5°	211.4	218.5	225.7	227.5	244.1	266.3	277.3	293.6	326.0	350.3	354.2
145°	220.0	226.3	232.5	234.1	247.9	266.3	275.5	288.7	315.3	335.2	338.1
147.5°	228.6	234.7	240.8	242.3	253.3	268.1	275.5	285.9	306.8	322.4	324.8
150°	234.2	239.8	245.2	246.6	256.2	269.0	275.5	284.2	301.9	315.1	317.1
152.5°	240.0	244.1	248.4	249.4	258.1	269.7	275.5	282.9	298.0	309.3	310.8
155°	248.6	251.7	254.8	255.5	262.2	271.1	275.5	281.4	293.4	302.4	303.3
157.5°	255.0	258.0	261.0	261.7	266.3	272.4	275.5	280.1	289.4	296.4	297.0
160°	259.3	261.6	264.0	264.5	268.2	273.0	275.5	279.5	287.4	293.4	293.8
162.5°	263.6	265.4	267.0	267.5	270.1	273.7	275.5	278.8	285.6	290.6	291.0
165°	268.4	269.9	271.5	271.9	273.1	274.7	275.5	277.9	282.7	286.3	286.7
167.5°	272.7	273.4	274.1	274.3	275.4	276.7	277.3	278.9	282.1	284.4	284.6
170°	275.5	276.2	277.0	277.1	277.2	277.3	277.3	278.9	282.1	284.4	284.4
172.5°	277.0	277.1	277.3	277.3	277.3	277.3	277.3	278.5	281.1	282.9	282.7
175°	279.0	279.0	279.0	279.0	278.4	277.7	277.3	278.1	279.7	280.9	280.9
177.5°	279.0	279.0	279.0	279.0	278.5	278.0	277.7	278.4	279.6	280.5	280.3
180°	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	768.2	768.2
2.5°	820.1	815.2
5°	1054.7	1059.7
7.5°	1420.3	1417.9
10°	1766.1	1788.4
12.5°	2018.1	2023.1
15°	2171.2	2181.1
17.5°	2230.5	2233.0
20°	2233.0	2228.1
22.5°	2205.8	2200.9
25°	2173.8	2171.2
27.5°	2144.0	2146.6
30°	2131.7	2139.2
32.5°	2131.7	2144.0
35°	2136.6	2149.0
37.5°	2134.2	2149.0
40°	2124.3	2141.6
42.5°	2097.1	2109.4
45°	2055.1	2070.0
47.5°	2000.8	2010.6
50°	1931.7	1941.5
52.5°	1845.2	1847.6
55°	1741.5	1751.4
57.5°	1630.3	1632.7
60°	1506.7	1514.2
62.5°	1375.9	1375.9
65°	1237.6	1242.5
67.5°	1094.3	1106.6
70°	948.5	951.0
72.5°	805.2	805.2
75°	657.1	659.5
77.5°	516.2	516.2
80°	382.9	385.4
82.5°	264.3	269.3
85°	165.5	165.5
87.5°	76.6	69.2
90°	7.1	7.1
92.5°	28.5	22.8
95°	99.4	82.2
97.5°	238.0	205.4
100°	342.9	304.1
102.5°	446.1	412.9
105°	577.7	559.8
107.5°	663.9	668.2
110°	696.7	715.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	699.7	728.3
115°	681.2	720.8
117.5°	641.9	685.9
120°	610.1	652.9
122.5°	579.2	621.4
125°	535.2	574.1
127.5°	495.6	528.4
130°	472.2	502.5
132.5°	451.1	478.2
135°	422.0	445.4
137.5°	398.7	417.9
140°	382.8	400.7
142.5°	369.6	384.9
145°	349.8	361.4
147.5°	334.4	344.2
150°	324.9	332.8
152.5°	316.7	322.6
155°	307.2	311.2
157.5°	299.9	302.6
160°	295.4	297.0
162.5°	292.5	294.0
165°	288.3	289.9
167.5°	285.3	285.9
170°	284.4	284.4
172.5°	282.2	281.6
175°	280.9	280.9
177.5°	279.7	279.0
180°	279.0	279.0



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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	8.78	8.23	9.49	10.32	20.73	21.96	21.41	22.67	23.50
	3H	8.28	9.40	8.98	10.11	10.97	22.60	23.71	23.29	24.43	25.29
	4H	8.60	9.65	9.31	10.38	11.25	23.26	24.31	23.97	25.04	25.91
	6H	8.87	9.84	9.60	10.58	11.47	23.71	24.68	24.43	25.42	26.31
	8H	8.95	9.88	9.68	10.63	11.53	23.84	24.77	24.58	25.53	26.42
	12H	8.98	9.87	9.72	10.62	11.54	23.92	24.81	24.66	25.56	26.48
4H	2H	14.81	15.86	15.53	16.59	17.46	21.05	22.10	21.76	22.83	23.70
	3H	16.41	17.30	17.14	18.06	18.95	23.13	24.01	23.86	24.77	25.67
	4H	16.52	17.33	17.27	18.09	19.01	23.91	24.72	24.66	25.48	26.40
	6H	16.55	17.26	17.32	18.04	18.97	24.47	25.17	25.23	25.96	26.89
	8H	16.54	17.20	17.31	17.98	18.92	24.64	25.30	25.41	26.08	27.03
	12H	16.52	17.11	17.31	17.92	18.86	24.76	25.35	25.55	26.16	27.10
8H	4H	18.00	18.66	18.77	19.44	20.38	24.00	24.66	24.77	25.44	26.38
	6H	18.26	18.81	19.06	19.63	20.57	24.65	25.20	25.45	26.02	26.96
	8H	18.28	18.77	19.09	19.59	20.55	24.87	25.36	25.68	26.19	27.14
	12H	18.27	18.70	19.08	19.51	20.53	25.04	25.47	25.85	26.28	27.30
12H	4H	18.16	18.75	18.95	19.56	20.51	23.97	24.57	24.76	25.37	26.32
	6H	18.52	19.01	19.33	19.83	20.79	24.64	25.13	25.45	25.95	26.91
	8H	18.61	19.04	19.42	19.86	20.87	24.89	25.32	25.70	26.13	27.15