

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: P936844

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

**Test Information**

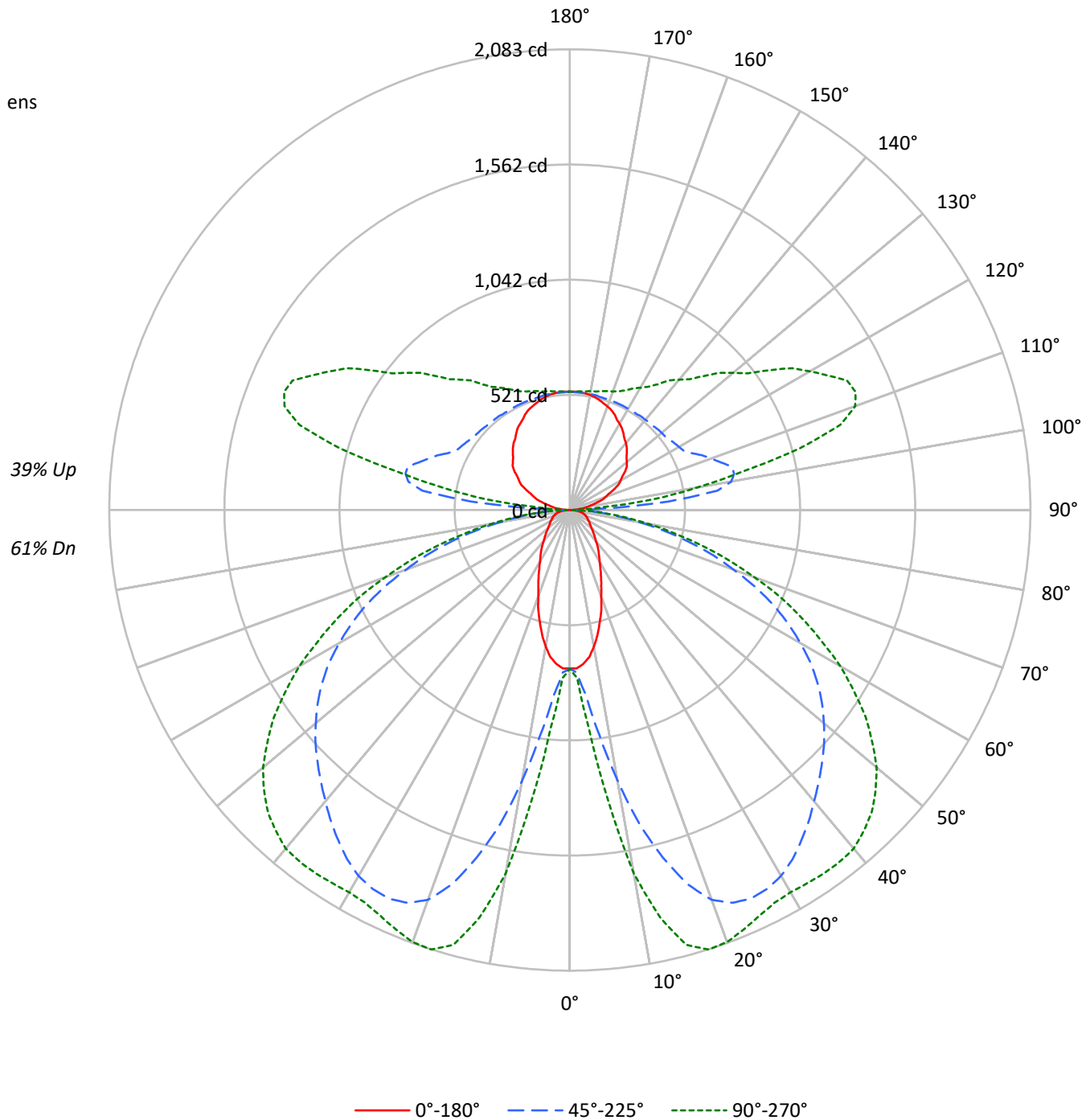
Test Method: LM-79-2019  
Report Number: P936844  
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9018.6 lumens  
Efficiency: N/A  
Efficacy: 99.8 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<sub>in</sub>): 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	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°	3325	3325	3325
5°	3248	3843	4469
10°	2946	5602	7410
15°	2504	7319	8947
20°	2039	8482	9119
25°	1701	8876	8933
30°	1434	8932	8917
35°	1268	8784	9147
40°	1105	8591	9385
45°	1001	8450	9422
50°	918	8322	9266
55°	879	8136	8855
60°	900	7779	8207
65°	937	7236	7316
70°	997	6310	6180
75°	1105	5145	4823
80°	1208	3568	3250
85°	1071	1894	1663

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9422 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.7	1.0
10°-20°	410.9	4.6
20°-30°	718.7	8.0
30°-40°	925.2	10.3
40°-50°	1033.4	11.5
50°-60°	989.8	11.0
60°-70°	784.4	8.7
70°-80°	461.2	5.1
80°-90°	130.2	1.4
90°-100°	261.1	2.9
100°-110°	686.4	7.6
110°-120°	711.7	7.9
120°-130°	570.9	6.3
130°-140°	447.9	5.0
140°-150°	343.8	3.8
150°-160°	247.6	2.7
160°-170°	151.5	1.7
170°-180°	51.2	0.6
0°-30°	1222.3	13.6
0°-40°	2147.5	23.8
0°-60°	4170.6	46.2
0°-90°	5546.4	61.5
90°-120°	1659.2	18.4
90°-150°	3021.9	33.5
90°-180°	3472.0	38.5
0°-180°	9018.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	698	749	843	954	989	64
15°	523	966	1627	1973	2035	146
25°	334	1095	1938	2023	2026	154
35°	226	1046	1825	1929	2005	141
45°	154	834	1613	1848	1931	119
55°	111	530	1369	1590	1634	101
65°	88	281	1016	1143	1159	87
75°	64	173	558	613	615	68
85°	23	53	138	152	154	24
90°	4	10	27	14	14	5
95°	34	135	450	232	158	38
105°	124	187	759	1152	1075	131
115°	220	267	608	1212	1384	217
125°	306	342	553	934	1102	271
135°	364	401	536	754	855	282
145°	422	449	529	644	694	265
155°	477	491	529	580	597	219
165°	515	522	529	550	556	145
175°	536	536	532	539	539	51
180°	536	536	536	536	536	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7
2.5°	716.7	716.7	721.3	723.6	728.2	730.5	735.1	739.7	753.6	755.9	760.5
5°	698.2	707.5	737.5	749.0	781.3	825.0	843.4	873.4	935.6	954.1	965.6
7.5°	670.6	691.3	765.1	783.5	864.2	979.4	1027.8	1092.3	1191.5	1239.9	1279.0
10°	626.8	670.6	802.0	845.8	977.1	1152.2	1242.1	1332.0	1481.8	1548.6	1573.9
12.5°	578.4	649.8	841.2	901.1	1090.0	1345.8	1454.1	1553.3	1723.7	1813.7	1827.4
15°	523.1	619.9	878.1	965.6	1209.9	1507.1	1627.0	1749.1	1908.1	1972.6	1988.8
17.5°	474.7	596.9	912.6	1004.8	1302.0	1652.3	1774.5	1875.8	2004.9	2048.7	2060.3
20°	414.8	560.0	935.6	1055.4	1398.8	1758.4	1875.8	1954.2	2041.8	2069.4	2074.0
22.5°	371.1	520.8	949.5	1073.9	1463.4	1822.9	1922.0	1984.1	2044.1	2053.3	2055.6
25°	334.2	477.0	947.1	1094.7	1518.6	1862.1	1938.1	1984.1	2018.8	2023.4	2023.4
27.5°	299.5	428.6	938.0	1099.3	1560.2	1871.3	1931.2	1963.5	1979.6	1988.8	1988.8
30°	269.6	382.6	914.9	1090.0	1578.6	1862.1	1910.5	1926.6	1942.7	1956.5	1963.5
32.5°	246.6	338.8	880.3	1071.6	1580.9	1839.0	1873.6	1882.8	1905.8	1938.1	1949.6
35°	225.9	295.0	841.2	1046.3	1567.0	1802.1	1825.2	1834.4	1880.5	1928.9	1945.0
37.5°	205.1	262.7	790.4	1002.5	1546.3	1758.4	1774.5	1790.6	1862.1	1919.6	1938.1
40°	184.3	235.1	730.5	954.1	1514.0	1705.3	1719.1	1744.5	1839.0	1905.8	1924.2
42.5°	168.2	212.0	666.0	903.3	1472.6	1645.4	1666.2	1703.0	1811.3	1882.8	1903.6
45°	154.4	189.0	596.9	834.2	1419.6	1583.2	1613.2	1663.8	1779.0	1848.2	1866.7
47.5°	140.6	172.8	525.4	762.8	1361.9	1521.0	1560.2	1617.8	1735.3	1802.1	1818.3
50°	129.1	156.7	454.0	686.7	1299.8	1454.1	1500.2	1560.2	1680.0	1742.2	1762.9
52.5°	119.8	142.8	387.2	610.7	1228.3	1385.0	1438.0	1500.2	1613.2	1673.1	1686.9
55°	110.6	131.3	329.5	530.0	1154.6	1311.3	1368.8	1428.8	1539.4	1590.1	1599.3
57.5°	106.0	122.2	281.1	454.0	1076.2	1228.3	1292.8	1348.2	1451.8	1491.0	1500.2
60°	99.1	115.2	244.3	389.5	991.0	1150.0	1205.2	1260.5	1348.2	1380.4	1387.3
62.5°	92.2	110.6	216.6	327.3	903.3	1057.8	1113.1	1163.8	1237.5	1260.5	1269.8
65°	87.6	106.0	195.9	281.1	813.5	961.0	1016.3	1060.0	1120.0	1143.1	1147.7
67.5°	82.9	101.4	179.7	242.0	723.6	864.2	905.7	947.1	993.2	1016.3	1018.6
70°	76.0	96.8	165.9	214.3	631.4	753.6	788.1	831.9	868.8	880.3	887.2
72.5°	71.4	89.9	156.7	193.6	536.9	647.6	679.8	705.2	737.5	749.0	749.0
75°	64.5	80.7	147.5	172.8	440.2	530.0	557.7	583.0	608.4	613.0	606.1
77.5°	57.6	71.4	126.7	145.2	343.4	419.4	442.5	456.2	477.0	481.6	484.0
80°	48.4	62.3	99.1	112.9	248.9	308.8	324.9	336.4	354.9	354.9	359.5
82.5°	36.9	48.4	71.4	80.7	168.2	212.0	225.9	232.7	244.3	244.3	244.3
85°	23.0	30.0	46.1	53.0	101.4	129.1	138.3	140.6	149.8	152.1	152.1
87.5°	11.5	16.1	30.0	32.3	53.0	66.8	66.8	71.4	71.4	69.2	66.8
90°	3.6	6.5	9.3	10.0	15.8	23.5	27.3	24.2	18.2	13.7	13.7
92.5°	14.4	38.8	63.3	69.4	97.6	135.1	153.8	134.8	96.8	68.3	65.6
95°	34.5	79.3	124.0	135.2	240.0	379.8	449.7	401.3	304.5	231.9	223.7
97.5°	59.6	99.1	138.6	148.4	323.3	556.4	672.9	642.3	581.1	535.3	519.6
100°	79.1	114.8	150.6	159.6	353.6	612.3	741.6	743.8	748.3	751.6	732.9
102.5°	95.7	129.1	162.4	170.7	367.5	629.9	761.0	800.0	878.0	936.4	920.4
105°	123.7	151.9	180.2	187.3	377.9	631.9	758.8	846.2	1021.1	1152.1	1143.5
107.5°	152.4	178.8	205.1	211.7	379.7	603.7	715.7	837.6	1081.4	1264.3	1266.4
110°	171.8	195.6	219.5	225.4	376.9	578.8	679.8	816.0	1088.6	1293.0	1301.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	190.9	213.6	236.2	241.9	377.0	557.1	647.0	786.5	1065.5	1274.7	1288.4
115°	219.7	240.6	261.5	266.8	380.5	532.1	607.9	742.3	1010.9	1212.5	1231.5
117.5°	248.0	267.0	286.0	290.8	387.5	516.4	580.9	702.2	944.7	1126.6	1147.7
120°	264.6	282.5	300.4	304.9	393.3	511.2	570.1	680.9	902.5	1068.7	1089.2
122.5°	280.7	298.8	316.8	321.3	401.5	508.4	561.9	661.6	861.2	1010.9	1031.1
125°	305.6	322.0	338.4	342.5	412.6	506.1	552.9	637.6	807.2	934.3	953.0
127.5°	325.7	342.3	358.8	363.0	423.8	504.8	545.3	618.1	763.6	872.8	888.5
130°	336.4	354.3	372.3	376.7	431.9	505.6	542.4	607.2	736.8	833.9	848.5
132.5°	347.6	365.5	383.4	387.9	438.5	506.1	540.0	598.0	713.9	800.9	813.9
135°	364.2	380.5	396.7	400.8	445.7	505.6	535.6	584.2	681.3	754.1	765.4
137.5°	381.1	397.2	413.3	417.4	456.5	508.7	534.9	576.0	658.1	719.7	728.8
140°	395.0	409.9	424.8	428.5	463.1	509.3	532.4	567.9	638.8	692.0	700.5
142.5°	405.8	419.5	433.3	436.7	468.6	511.1	532.4	563.5	625.9	672.6	680.0
145°	422.4	434.4	446.4	449.4	475.9	511.2	528.8	554.3	605.3	643.5	649.1
147.5°	438.9	450.6	462.3	465.1	486.3	514.7	528.8	548.9	588.9	619.0	623.6
150°	449.7	460.3	470.8	473.4	491.9	516.5	528.8	545.7	579.6	605.0	608.8
152.5°	460.9	468.9	476.8	478.8	495.5	517.7	528.8	543.3	572.1	593.9	596.7
155°	477.4	483.3	489.2	490.7	503.4	520.3	528.8	540.3	563.2	580.5	582.4
157.5°	489.6	495.3	501.1	502.6	511.3	523.0	528.8	537.7	555.6	569.0	570.3
160°	497.8	502.4	506.8	508.0	514.9	524.2	528.8	536.5	551.7	563.2	564.0
162.5°	506.1	509.5	512.8	513.7	518.8	525.5	528.8	535.3	548.2	557.9	558.6
165°	515.1	518.2	521.1	521.9	524.2	527.2	528.8	533.4	542.7	549.6	550.4
167.5°	523.4	524.8	526.3	526.6	528.5	531.1	532.4	535.4	541.5	546.1	546.4
170°	528.8	530.2	531.7	532.0	532.1	532.3	532.4	535.4	541.5	546.1	546.1
172.5°	531.7	532.0	532.3	532.4	532.4	532.4	532.4	534.8	539.6	543.2	542.9
175°	535.6	535.6	535.6	535.6	534.6	533.1	532.4	533.9	536.9	539.2	539.2
177.5°	535.6	535.6	535.6	535.6	534.7	533.6	533.1	534.3	536.6	538.5	538.1
180°	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6	535.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	716.7	716.7
2.5°	765.1	760.5
5°	984.0	988.6
7.5°	1325.1	1322.8
10°	1647.7	1668.5
12.5°	1882.8	1887.4
15°	2025.6	2034.9
17.5°	2080.9	2083.3
20°	2083.3	2078.7
22.5°	2057.9	2053.3
25°	2028.0	2025.6
27.5°	2000.3	2002.6
30°	1988.8	1995.7
32.5°	1988.8	2000.3
35°	1993.4	2004.9
37.5°	1991.1	2004.9
40°	1981.9	1998.0
42.5°	1956.5	1968.0
45°	1917.3	1931.2
47.5°	1866.7	1875.8
50°	1802.1	1811.3
52.5°	1721.5	1723.7
55°	1624.7	1633.9
57.5°	1521.0	1523.3
60°	1405.7	1412.7
62.5°	1283.6	1283.6
65°	1154.6	1159.2
67.5°	1020.9	1032.4
70°	884.9	887.2
72.5°	751.3	751.3
75°	613.0	615.3
77.5°	481.6	481.6
80°	357.2	359.5
82.5°	246.6	251.2
85°	154.4	154.4
87.5°	71.4	64.5
90°	13.7	13.7
92.5°	54.7	43.9
95°	190.7	157.8
97.5°	456.9	394.3
100°	658.4	583.7
102.5°	856.5	792.6
105°	1109.1	1074.8
107.5°	1274.7	1282.9
110°	1337.7	1373.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1343.4	1398.3
115°	1307.7	1383.9
117.5°	1232.3	1316.8
120°	1171.3	1253.5
122.5°	1112.1	1193.1
125°	1027.5	1102.2
127.5°	951.5	1014.4
130°	906.7	964.8
132.5°	866.0	918.1
135°	810.3	855.2
137.5°	765.6	802.4
140°	734.9	769.2
142.5°	709.5	739.0
145°	671.5	693.8
147.5°	642.2	660.7
150°	623.8	638.8
152.5°	608.1	619.4
155°	589.9	597.4
157.5°	575.6	580.9
160°	567.1	570.1
162.5°	561.5	564.4
165°	553.4	556.4
167.5°	547.6	548.9
170°	546.1	546.1
172.5°	541.8	540.7
175°	539.2	539.2
177.5°	536.9	535.6
180°	535.6	535.6



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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	6.16	7.19	7.01	8.06	9.15	19.34	20.37	20.18	21.24	22.33
	3H	6.88	7.80	7.74	8.68	9.80	21.19	22.12	22.05	23.00	24.12
	4H	7.19	8.06	8.06	8.95	10.08	21.85	22.72	22.72	23.61	24.74
	6H	7.45	8.25	8.33	9.15	10.29	22.29	23.09	23.17	23.99	25.13
	8H	7.52	8.29	8.41	9.20	10.34	22.41	23.18	23.30	24.09	25.24
	12H	7.54	8.28	8.44	9.18	10.35	22.48	23.22	23.38	24.13	25.30
4H	2H	13.40	14.27	14.27	15.16	16.29	19.64	20.51	20.51	21.40	22.53
	3H	14.98	15.71	15.87	16.63	17.78	21.70	22.43	22.58	23.35	24.49
	4H	15.08	15.75	15.98	16.67	17.84	22.47	23.14	23.37	24.05	25.23
	6H	15.10	15.68	16.02	16.62	17.79	23.02	23.60	23.93	24.54	25.71
	8H	15.08	15.63	16.00	16.56	17.75	23.19	23.73	24.10	24.66	25.85
	12H	15.05	15.54	15.99	16.49	17.68	23.29	23.78	24.23	24.73	25.92
8H	4H	16.54	17.08	17.46	18.02	19.20	22.54	23.09	23.46	24.02	25.21
	6H	16.79	17.24	17.74	18.22	19.40	23.18	23.63	24.13	24.61	25.79
	8H	16.81	17.21	17.77	18.18	19.38	23.40	23.80	24.36	24.77	25.97
	12H	16.79	17.14	17.75	18.10	19.35	23.56	23.91	24.52	24.87	26.12
12H	4H	16.69	17.18	17.63	18.13	19.33	22.51	23.00	23.44	23.95	25.14
	6H	17.05	17.45	18.01	18.42	19.62	23.17	23.57	24.12	24.53	25.74
	8H	17.13	17.48	18.09	18.44	19.69	23.41	23.76	24.36	24.72	25.97