

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: P936712

Luminaire Tested: SQ4-FB-050U-075D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

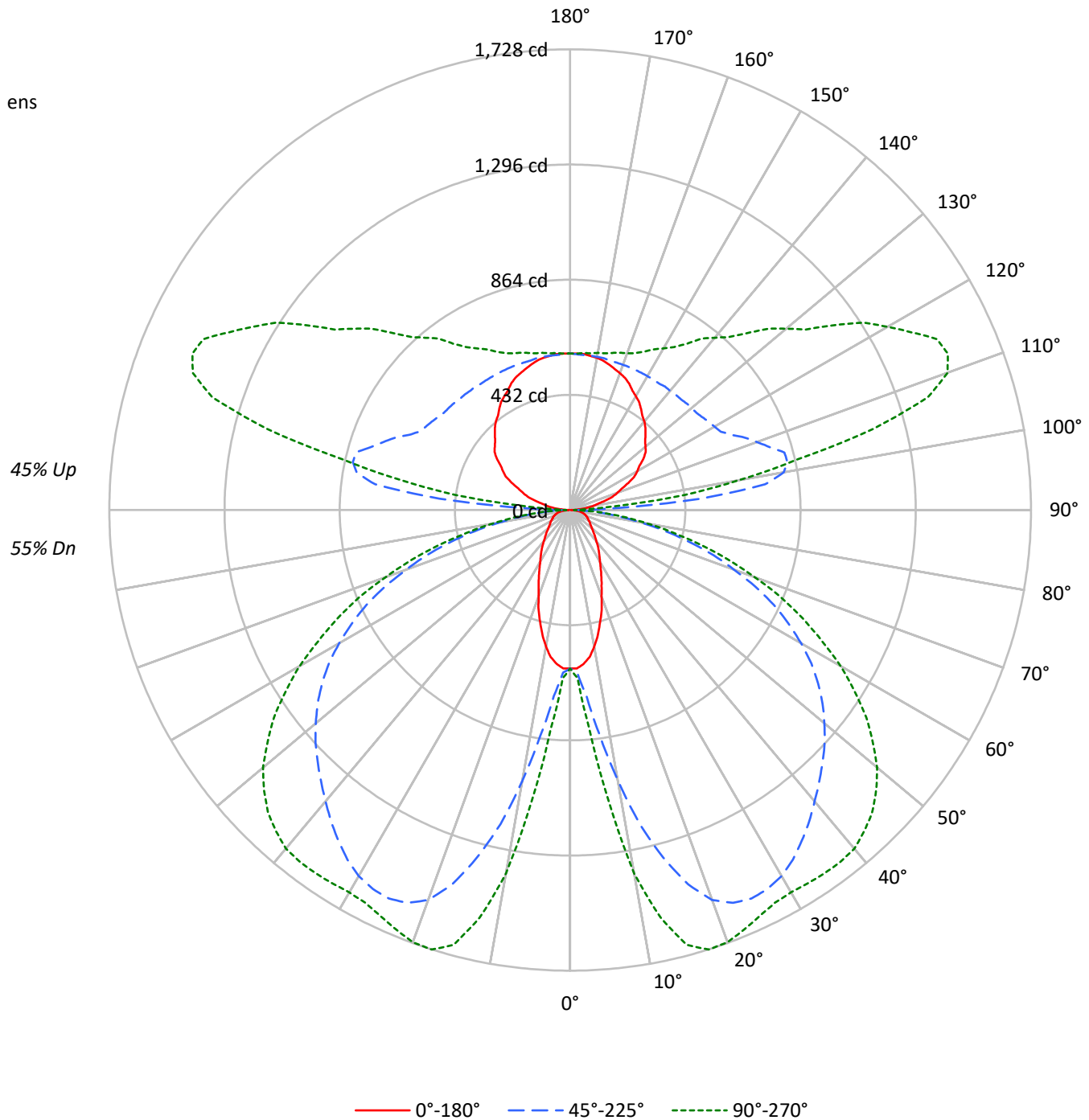
Test Method: LM-79-2019  
Report Number: P936712  
REPORT IS A COMBINATION OF REPORTS P933486 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-830-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8409.0 lumens  
Efficiency: N/A  
Efficacy: 115.5 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: General Diffuse  
  
Input Watts (W): 72.8  
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

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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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	50	50	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	41	41	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	34	34	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	29	29	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	25	25	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	21	21	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	19	19	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	16	16	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	15	15	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	13	13	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2759	2759	2759
5°	2695	3189	3708
10°	2445	4648	6148
15°	2078	6073	7424
20°	1692	7038	7566
25°	1411	7365	7412
30°	1190	7411	7398
35°	1052	7288	7589
40°	917	7128	7787
45°	830	7011	7818
50°	762	6906	7688
55°	730	6751	7348
60°	747	6455	6810
65°	777	6004	6069
70°	828	5236	5128
75°	916	4269	4002
80°	1003	2961	2697
85°	890	1570	1380

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7818 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.9	0.9
10°-20°	340.9	4.1
20°-30°	596.3	7.1
30°-40°	767.6	9.1
40°-50°	857.4	10.2
50°-60°	821.2	9.8
60°-70°	650.8	7.7
70°-80°	382.7	4.6
80°-90°	108.6	1.3
90°-100°	286.2	3.4
100°-110°	752.5	8.9
110°-120°	780.3	9.3
120°-130°	625.9	7.4
130°-140°	491.1	5.8
140°-150°	376.9	4.5
150°-160°	271.4	3.2
160°-170°	166.1	2.0
170°-180°	56.1	0.7
0°-30°	1014.2	12.1
0°-40°	1781.8	21.2
0°-60°	3460.5	41.2
0°-90°	4602.5	54.7
90°-120°	1819.0	21.6
90°-150°	3312.8	39.4
90°-180°	3806.0	45.3
0°-180°	8409.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	579	621	700	792	820	53
15°	434	801	1350	1637	1688	121
25°	277	908	1608	1679	1681	128
35°	187	868	1514	1600	1664	117
45°	128	692	1338	1534	1602	99
55°	92	440	1136	1319	1356	84
65°	73	233	843	948	962	72
75°	54	143	463	509	510	56
85°	19	44	115	126	128	20
90°	4	11	30	15	15	5
95°	38	148	493	254	173	42
105°	136	205	832	1263	1178	144
115°	241	292	666	1329	1517	238
125°	335	376	606	1024	1208	297
135°	399	439	587	827	938	309
145°	463	493	580	705	761	290
155°	523	538	580	636	655	240
165°	565	572	580	603	610	159
175°	587	587	584	591	591	56
180°	587	587	587	587	587	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6
2.5°	594.6	594.6	598.5	600.4	604.2	606.1	609.9	613.8	625.2	627.1	631.0
5°	579.3	587.0	611.8	621.4	648.2	684.5	699.8	724.6	776.3	791.6	801.1
7.5°	556.4	573.6	634.8	650.1	717.0	812.6	852.8	906.3	988.5	1028.7	1061.2
10°	520.1	556.4	665.4	701.7	810.7	956.0	1030.6	1105.2	1229.5	1285.0	1306.0
12.5°	479.9	539.2	697.9	747.6	904.4	1116.7	1206.6	1288.8	1430.3	1504.8	1516.3
15°	434.0	514.3	728.5	801.1	1003.8	1250.5	1350.0	1451.3	1583.2	1636.8	1650.2
17.5°	393.9	495.2	757.2	833.6	1080.3	1371.0	1472.3	1556.5	1663.5	1699.9	1709.4
20°	344.2	464.6	776.3	875.7	1160.7	1459.0	1556.5	1621.5	1694.1	1717.1	1720.9
22.5°	307.8	432.1	787.7	891.0	1214.2	1512.5	1594.7	1646.3	1696.0	1703.7	1705.6
25°	277.2	395.8	785.8	908.2	1260.1	1545.0	1608.1	1646.3	1675.0	1678.8	1678.8
27.5°	248.6	355.6	778.2	912.0	1294.5	1552.6	1602.4	1629.1	1642.5	1650.2	1650.2
30°	223.7	317.4	759.1	904.4	1309.8	1545.0	1585.1	1598.5	1611.9	1623.4	1629.1
32.5°	204.6	281.1	730.4	889.1	1311.7	1525.9	1554.6	1562.2	1581.3	1608.1	1617.6
35°	187.4	244.7	697.9	868.0	1300.3	1495.3	1514.4	1522.0	1560.3	1600.4	1613.8
37.5°	170.2	218.0	655.8	831.7	1283.0	1459.0	1472.3	1485.7	1545.0	1592.8	1608.1
40°	153.0	195.0	606.1	791.6	1256.3	1415.0	1426.4	1447.5	1525.9	1581.3	1596.6
42.5°	139.6	175.9	552.6	749.5	1221.9	1365.3	1382.5	1413.1	1502.9	1562.2	1579.4
45°	128.1	156.8	495.2	692.1	1177.9	1313.6	1338.5	1380.6	1476.2	1533.5	1548.8
47.5°	116.6	143.4	435.9	632.9	1130.1	1262.0	1294.5	1342.3	1439.8	1495.3	1508.7
50°	107.1	130.0	376.7	569.8	1078.4	1206.6	1244.8	1294.5	1393.9	1445.6	1462.8
52.5°	99.4	118.5	321.2	506.7	1019.1	1149.2	1193.2	1244.8	1338.5	1388.2	1399.7
55°	91.8	109.0	273.4	439.8	957.9	1088.0	1135.8	1185.5	1277.3	1319.4	1327.0
57.5°	88.0	101.3	233.3	376.7	892.9	1019.1	1072.6	1118.6	1204.7	1237.2	1244.8
60°	82.2	95.6	202.7	323.1	822.2	954.1	1000.0	1045.9	1118.6	1145.4	1151.1
62.5°	76.5	91.8	179.7	271.5	749.5	877.6	923.5	965.6	1026.7	1045.9	1053.5
65°	72.7	88.0	162.5	233.3	674.9	797.3	843.2	879.5	929.2	948.4	952.2
67.5°	68.8	84.1	149.1	200.8	600.4	717.0	751.4	785.8	824.1	843.2	845.1
70°	63.1	80.3	137.7	177.8	523.9	625.2	653.9	690.2	720.8	730.4	736.1
72.5°	59.3	74.6	130.0	160.6	445.5	537.3	564.0	585.1	611.8	621.4	621.4
75°	53.5	66.9	122.4	143.4	365.2	439.8	462.7	483.7	504.8	508.6	502.9
77.5°	47.8	59.3	105.2	120.5	284.9	348.0	367.1	378.6	395.8	399.6	401.5
80°	40.2	51.6	82.2	93.7	206.5	256.2	269.6	279.2	294.4	294.4	298.3
82.5°	30.6	40.2	59.3	66.9	139.6	175.9	187.4	193.1	202.7	202.7	202.7
85°	19.1	24.9	38.2	44.0	84.1	107.1	114.7	116.6	124.3	126.2	126.2
87.5°	9.6	13.4	24.9	26.8	44.0	55.4	55.4	59.3	59.3	57.4	55.4
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.6	20.0	15.0	15.0
92.5°	15.8	42.5	69.4	76.1	107.0	148.1	168.6	147.8	106.1	74.9	71.9
95°	37.9	86.9	135.9	148.2	263.1	416.3	493.0	440.0	333.8	254.2	245.2
97.5°	65.4	108.6	151.9	162.7	354.4	609.9	737.7	704.2	637.1	586.8	569.6
100°	86.7	125.9	165.1	174.9	387.7	671.2	813.0	815.5	820.3	824.0	803.5
102.5°	104.9	141.5	178.0	187.2	402.9	690.5	834.3	877.0	962.5	1026.6	1009.1
105°	135.6	166.5	197.6	205.3	414.2	692.7	831.9	927.7	1119.4	1263.1	1253.6
107.5°	167.1	196.0	224.9	232.1	416.2	661.8	784.6	918.2	1185.5	1386.0	1388.3
110°	188.3	214.4	240.6	247.1	413.2	634.5	745.2	894.6	1193.4	1417.5	1427.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.3	234.1	259.0	265.2	413.3	610.7	709.4	862.2	1168.0	1397.4	1412.5
115°	240.8	263.8	286.7	292.4	417.1	583.4	666.4	813.7	1108.3	1329.2	1350.1
117.5°	271.9	292.7	313.6	318.8	424.8	566.1	636.8	769.8	1035.6	1235.1	1258.2
120°	290.1	309.6	329.3	334.2	431.2	560.4	625.0	746.4	989.4	1171.6	1194.0
122.5°	307.7	327.5	347.3	352.3	440.1	557.3	616.0	725.3	944.1	1108.2	1130.4
125°	335.0	353.0	371.0	375.5	452.4	554.9	606.1	699.0	884.9	1024.3	1044.7
127.5°	357.1	375.2	393.4	398.0	464.6	553.4	597.8	677.6	837.2	956.9	974.1
130°	368.8	388.4	408.1	413.0	473.5	554.3	594.6	665.7	807.7	914.2	930.2
132.5°	381.1	400.7	420.4	425.2	480.8	554.9	592.0	655.5	782.7	878.0	892.2
135°	399.2	417.1	434.9	439.4	488.6	554.3	587.2	640.4	746.9	826.7	839.1
137.5°	417.8	435.5	453.1	457.5	500.5	557.7	586.4	631.4	721.5	789.0	799.0
140°	433.1	449.4	465.7	469.8	507.7	558.3	583.6	622.5	700.3	758.6	768.0
142.5°	444.9	459.9	475.0	478.8	513.8	560.3	583.6	617.8	686.1	737.4	745.5
145°	463.1	476.2	489.4	492.6	521.7	560.4	579.7	607.6	663.6	705.4	711.6
147.5°	481.2	494.0	506.8	509.9	533.2	564.2	579.7	601.7	645.6	678.6	683.6
150°	493.0	504.6	516.1	519.0	539.3	566.2	579.7	598.3	635.5	663.3	667.4
152.5°	505.2	514.0	522.7	524.9	543.2	567.6	579.7	595.6	627.2	651.0	654.2
155°	523.3	529.8	536.3	537.9	551.9	570.4	579.7	592.3	617.5	636.4	638.5
157.5°	536.7	543.0	549.3	550.9	560.5	573.3	579.7	589.5	609.1	623.8	625.2
160°	545.8	550.8	555.6	556.9	564.5	574.7	579.7	588.1	604.9	617.5	618.3
162.5°	554.9	558.6	562.2	563.2	568.7	576.1	579.7	586.8	601.0	611.6	612.4
165°	564.7	568.1	571.3	572.2	574.7	578.0	579.7	584.8	594.9	602.6	603.4
167.5°	573.8	575.3	576.9	577.3	579.4	582.2	583.6	587.0	593.7	598.6	599.0
170°	579.7	581.2	582.9	583.3	583.4	583.5	583.6	587.0	593.7	598.6	598.6
172.5°	582.9	583.3	583.5	583.6	583.6	583.6	583.6	586.3	591.6	595.5	595.2
175°	587.2	587.2	587.2	587.2	586.0	584.4	583.6	585.3	588.6	591.1	591.1
177.5°	587.2	587.2	587.2	587.2	586.2	585.0	584.4	585.7	588.3	590.3	589.9
180°	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	594.6	594.6
2.5°	634.8	631.0
5°	816.4	820.2
7.5°	1099.5	1097.6
10°	1367.2	1384.4
12.5°	1562.2	1566.0
15°	1680.7	1688.4
17.5°	1726.6	1728.5
20°	1728.5	1724.7
22.5°	1707.5	1703.7
25°	1682.7	1680.7
27.5°	1659.7	1661.6
30°	1650.2	1655.9
32.5°	1650.2	1659.7
35°	1654.0	1663.5
37.5°	1652.1	1663.5
40°	1644.4	1657.8
42.5°	1623.4	1632.9
45°	1590.9	1602.4
47.5°	1548.8	1556.5
50°	1495.3	1502.9
52.5°	1428.4	1430.3
55°	1348.1	1355.7
57.5°	1262.0	1263.9
60°	1166.4	1172.2
62.5°	1065.0	1065.0
65°	957.9	961.7
67.5°	847.0	856.6
70°	734.2	736.1
72.5°	623.3	623.3
75°	508.6	510.5
77.5°	399.6	399.6
80°	296.4	298.3
82.5°	204.6	208.4
85°	128.1	128.1
87.5°	59.3	53.5
90°	15.0	15.0
92.5°	59.9	48.1
95°	209.1	173.0
97.5°	500.9	432.3
100°	721.8	639.9
102.5°	939.0	868.9
105°	1215.9	1178.3
107.5°	1397.4	1406.5
110°	1466.5	1505.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1472.7	1532.9
115°	1433.6	1517.2
117.5°	1350.9	1443.6
120°	1284.1	1374.2
122.5°	1219.2	1308.0
125°	1126.5	1208.3
127.5°	1043.1	1112.1
130°	994.0	1057.7
132.5°	949.4	1006.5
135°	888.3	937.5
137.5°	839.4	879.6
140°	805.6	843.3
142.5°	777.8	810.2
145°	736.1	760.6
147.5°	704.0	724.4
150°	683.8	700.3
152.5°	666.6	679.0
155°	646.7	655.0
157.5°	631.1	636.8
160°	621.7	625.0
162.5°	615.6	618.7
165°	606.7	610.0
167.5°	600.4	601.8
170°	598.6	598.6
172.5°	594.0	592.7
175°	591.1	591.1
177.5°	588.6	587.2
180°	587.2	587.2



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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	4.95	5.90	5.86	6.83	8.03	18.13	19.08	19.04	20.01	21.21
	3H	5.66	6.52	6.58	7.46	8.68	19.98	20.83	20.89	21.77	22.99
	4H	5.97	6.77	6.90	7.72	8.95	20.63	21.43	21.56	22.38	23.61
	6H	6.22	6.97	7.17	7.92	9.17	21.06	21.81	22.01	22.76	24.00
	8H	6.29	7.00	7.24	7.97	9.22	21.18	21.90	22.14	22.87	24.11
	12H	6.31	6.99	7.27	7.95	9.22	21.26	21.93	22.21	22.90	24.17
4H	2H	12.18	12.99	13.12	13.93	15.16	18.42	19.22	19.35	20.17	21.40
	3H	13.75	14.43	14.70	15.41	16.65	20.47	21.15	21.42	22.12	23.37
	4H	13.85	14.47	14.81	15.44	16.71	21.24	21.86	22.20	22.83	24.10
	6H	13.87	14.40	14.84	15.40	16.67	21.78	22.32	22.76	23.31	24.58
	8H	13.85	14.35	14.82	15.34	16.62	21.95	22.45	22.92	23.44	24.72
	12H	13.81	14.26	14.80	15.27	16.56	22.05	22.50	23.04	23.50	24.79
8H	4H	15.30	15.81	16.28	16.79	18.08	21.31	21.81	22.28	22.80	24.08
	6H	15.55	15.97	16.55	17.00	18.28	21.94	22.36	22.94	23.39	24.67
	8H	15.57	15.94	16.58	16.95	18.25	22.16	22.53	23.17	23.55	24.85
	12H	15.54	15.87	16.56	16.88	18.22	22.31	22.63	23.32	23.65	24.99
12H	4H	15.45	15.91	16.45	16.91	18.20	21.26	21.72	22.26	22.72	24.01
	6H	15.81	16.18	16.82	17.19	18.50	21.93	22.29	22.93	23.31	24.61
	8H	15.88	16.21	16.90	17.22	18.56	22.16	22.48	23.17	23.49	24.84