

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: P936767

Luminaire Tested: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

**Test Information**

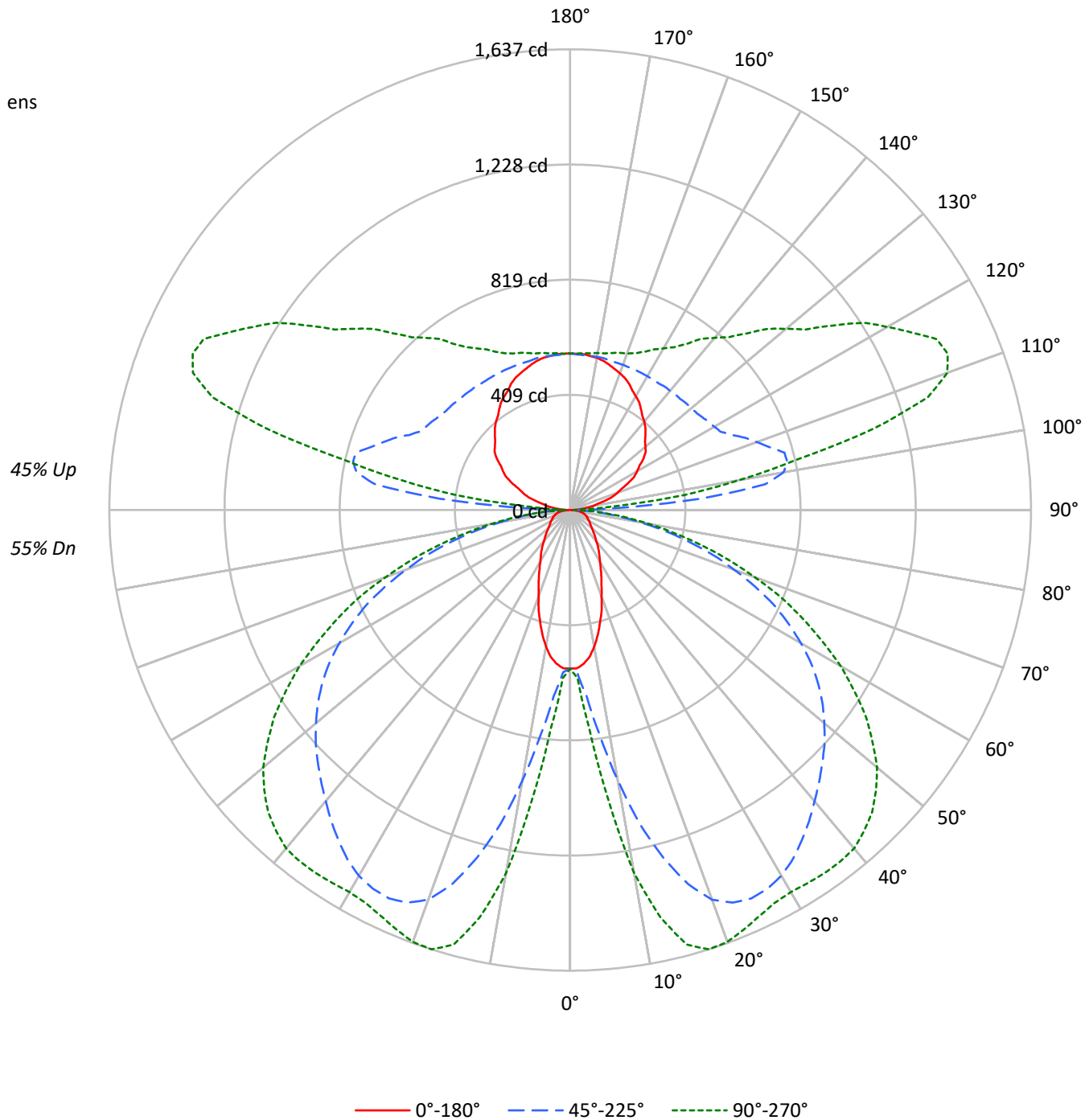
Test Method: LM-79-2019  
Report Number: P936767  
REPORT IS A COMBINATION OF REPORTS P933486 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-8-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7961.8 lumens  
Efficiency: N/A  
Efficacy: 109.4 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	0
RCR																		
0	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11

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

	0°	45°	90°
0°	2612	2612	2612
5°	2552	3019	3511
10°	2315	4401	5821
15°	1967	5750	7029
20°	1602	6663	7164
25°	1336	6973	7018
30°	1127	7017	7005
35°	996	6901	7186
40°	868	6749	7373
45°	786	6638	7402
50°	721	6538	7280
55°	691	6392	6957
60°	707	6111	6447
65°	736	5685	5747
70°	783	4957	4855
75°	868	4042	3789
80°	948	2804	2553
85°	843	1487	1307

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7402 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.8	0.9
10°-20°	322.8	4.1
20°-30°	564.6	7.1
30°-40°	726.8	9.1
40°-50°	811.8	10.2
50°-60°	777.6	9.8
60°-70°	616.2	7.7
70°-80°	362.3	4.6
80°-90°	102.8	1.3
90°-100°	271.0	3.4
100°-110°	712.5	8.9
110°-120°	738.8	9.3
120°-130°	592.6	7.4
130°-140°	465.0	5.8
140°-150°	356.9	4.5
150°-160°	257.0	3.2
160°-170°	157.3	2.0
170°-180°	53.1	0.7
0°-30°	960.2	12.1
0°-40°	1687.1	21.2
0°-60°	3276.5	41.2
0°-90°	4357.7	54.7
90°-120°	1722.2	21.6
90°-150°	3136.7	39.4
90°-180°	3604.0	45.3
0°-180°	7961.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	548	588	663	750	777	51
15°	411	758	1278	1550	1599	114
25°	262	860	1523	1590	1591	121
35°	177	822	1434	1515	1575	111
45°	121	655	1267	1452	1517	94
55°	87	416	1075	1249	1284	79
65°	69	221	798	898	911	68
75°	51	136	438	482	483	53
85°	18	42	109	120	121	19
90°	4	10	28	14	14	4
95°	36	140	467	241	164	40
105°	128	194	788	1196	1116	136
115°	228	277	631	1258	1436	225
125°	317	356	574	970	1144	282
135°	378	416	556	783	888	292
145°	438	466	549	668	720	275
155°	496	509	549	603	620	228
165°	535	542	549	570	578	151
175°	556	556	553	560	560	53
180°	556	556	556	556	556	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
2.5°	563.0	563.0	566.6	568.4	572.1	573.9	577.5	581.1	592.0	593.8	597.4
5°	548.5	555.8	579.3	588.4	613.7	648.1	662.6	686.1	735.0	749.5	758.5
7.5°	526.8	543.1	601.0	615.5	678.9	769.4	807.4	858.1	935.9	974.0	1004.7
10°	492.4	526.8	630.0	664.4	767.6	905.2	975.8	1046.5	1164.1	1216.6	1236.5
12.5°	454.4	510.5	660.8	707.8	856.3	1057.3	1142.4	1220.2	1354.2	1424.8	1435.7
15°	410.9	487.0	689.7	758.5	950.4	1184.0	1278.2	1374.1	1499.0	1549.7	1562.4
17.5°	372.9	468.9	716.9	789.3	1022.8	1298.1	1394.0	1473.7	1575.1	1609.5	1618.5
20°	325.9	439.9	735.0	829.1	1099.0	1381.4	1473.7	1535.2	1604.0	1625.8	1629.4
22.5°	291.5	409.1	745.9	843.6	1149.6	1432.1	1509.9	1558.8	1605.8	1613.1	1614.9
25°	262.5	374.7	744.0	859.9	1193.1	1462.8	1522.6	1558.8	1585.9	1589.6	1589.6
27.5°	235.3	336.7	736.8	863.5	1225.7	1470.1	1517.1	1542.5	1555.2	1562.4	1562.4
30°	211.8	300.5	718.7	856.3	1240.2	1462.8	1500.8	1513.5	1526.2	1537.1	1542.5
32.5°	193.7	266.1	691.5	841.8	1242.0	1444.7	1471.9	1479.1	1497.2	1522.6	1531.6
35°	177.4	231.7	660.8	821.9	1231.1	1415.8	1433.9	1441.1	1477.3	1515.3	1528.0
37.5°	161.1	206.4	620.9	787.5	1214.8	1381.4	1394.0	1406.7	1462.8	1508.1	1522.6
40°	144.8	184.7	573.9	749.5	1189.5	1339.7	1350.6	1370.5	1444.7	1497.2	1511.7
42.5°	132.2	166.5	523.2	709.6	1156.9	1292.7	1309.0	1337.9	1423.0	1479.1	1495.4
45°	121.3	148.4	468.9	655.3	1115.2	1243.8	1267.3	1307.1	1397.7	1452.0	1466.5
47.5°	110.4	135.8	412.8	599.2	1070.0	1194.9	1225.7	1270.9	1363.3	1415.8	1428.4
50°	101.4	123.1	356.6	539.5	1021.0	1142.4	1178.6	1225.7	1319.8	1368.7	1385.0
52.5°	94.1	112.2	304.1	479.7	964.9	1088.1	1129.7	1178.6	1267.3	1314.4	1325.2
55°	86.9	103.2	258.9	416.4	907.0	1030.2	1075.4	1122.5	1209.4	1249.2	1256.5
57.5°	83.3	95.9	220.9	356.6	845.4	964.9	1015.6	1059.1	1140.6	1171.4	1178.6
60°	77.8	90.5	191.9	305.9	778.4	903.4	946.8	990.2	1059.1	1084.5	1089.9
62.5°	72.4	86.9	170.2	257.1	709.6	830.9	874.4	914.2	972.1	990.2	997.5
65°	68.8	83.3	153.9	220.9	639.0	754.9	798.4	832.7	879.8	897.9	901.5
67.5°	65.2	79.7	141.2	190.1	568.4	678.9	711.5	744.0	780.2	798.4	800.2
70°	59.7	76.0	130.3	168.4	496.0	592.0	619.1	653.5	682.5	691.5	697.0
72.5°	56.1	70.6	123.1	152.1	421.8	508.7	534.0	554.0	579.3	588.4	588.4
75°	50.7	63.4	115.9	135.8	345.8	416.4	438.1	458.0	477.9	481.5	476.1
77.5°	45.3	56.1	99.6	114.1	269.7	329.5	347.6	358.4	374.7	378.4	380.2
80°	38.0	48.9	77.8	88.7	195.5	242.6	255.3	264.3	278.8	278.8	282.4
82.5°	29.0	38.0	56.1	63.4	132.2	166.5	177.4	182.8	191.9	191.9	191.9
85°	18.1	23.5	36.2	41.6	79.7	101.4	108.6	110.4	117.7	119.5	119.5
87.5°	9.1	12.7	23.5	25.3	41.6	52.5	52.5	56.1	56.1	54.3	52.5
90°	3.7	6.7	9.7	10.4	16.4	24.3	28.3	25.2	18.9	14.2	14.2
92.5°	14.9	40.3	65.7	72.1	101.3	140.2	159.7	139.9	100.5	70.9	68.1
95°	35.8	82.3	128.7	140.3	249.1	394.2	466.8	416.6	316.1	240.7	232.2
97.5°	61.9	102.8	143.8	154.1	335.5	577.5	698.5	666.7	603.2	555.6	539.3
100°	82.1	119.2	156.3	165.6	367.0	635.5	769.7	772.1	776.7	780.2	760.8
102.5°	99.3	134.0	168.5	177.2	381.4	653.8	789.9	830.4	911.3	972.0	955.4
105°	128.4	157.7	187.1	194.4	392.2	655.9	787.7	878.4	1059.9	1195.9	1186.9
107.5°	158.2	185.6	212.9	219.8	394.1	626.6	742.9	869.4	1122.5	1312.3	1314.5
110°	178.3	203.0	227.8	234.0	391.2	600.8	705.6	847.0	1129.9	1342.1	1351.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	198.1	221.7	245.2	251.1	391.3	578.2	671.6	816.4	1105.9	1323.1	1337.4
115°	228.0	249.7	271.5	276.9	394.9	552.3	631.0	770.5	1049.4	1258.5	1278.3
117.5°	257.4	277.2	296.9	301.9	402.3	536.0	602.9	728.8	980.6	1169.4	1191.3
120°	274.6	293.2	311.8	316.4	408.2	530.6	591.8	706.7	936.8	1109.3	1130.5
122.5°	291.4	310.1	328.8	333.6	416.7	527.7	583.2	686.7	893.9	1049.3	1070.3
125°	317.2	334.2	351.3	355.5	428.3	525.4	573.9	661.9	837.8	969.8	989.2
127.5°	338.1	355.3	372.5	376.8	439.9	524.0	566.0	641.6	792.6	906.0	922.3
130°	349.2	367.8	386.4	391.0	448.3	524.8	563.0	630.3	764.8	865.6	880.7
132.5°	360.8	379.4	398.0	402.6	455.2	525.4	560.5	620.7	741.1	831.3	844.8
135°	378.0	394.9	411.8	416.0	462.6	524.8	555.9	606.4	707.2	782.8	794.5
137.5°	395.6	412.3	429.0	433.2	473.9	528.1	555.2	597.9	683.1	747.0	756.5
140°	410.0	425.5	440.9	444.8	480.7	528.6	552.6	589.4	663.0	718.2	727.1
142.5°	421.3	435.5	449.8	453.3	486.4	530.5	552.6	584.9	649.6	698.2	705.8
145°	438.5	450.9	463.4	466.4	493.9	530.6	548.9	575.3	628.3	667.9	673.7
147.5°	455.6	467.7	479.8	482.8	504.8	534.2	548.9	569.7	611.3	642.5	647.3
150°	466.8	477.7	488.7	491.4	510.6	536.1	548.9	566.4	601.7	628.0	631.9
152.5°	478.4	486.7	494.9	497.0	514.3	537.4	548.9	563.9	593.9	616.4	619.4
155°	495.5	501.6	507.8	509.3	522.5	540.1	548.9	560.8	584.6	602.6	604.6
157.5°	508.2	514.1	520.1	521.6	530.7	542.8	548.9	558.1	576.7	590.6	592.0
160°	516.8	521.5	526.1	527.3	534.5	544.1	548.9	556.9	572.7	584.6	585.5
162.5°	525.4	528.9	532.3	533.2	538.5	545.5	548.9	555.6	569.1	579.1	579.8
165°	534.7	537.8	540.9	541.7	544.1	547.3	548.9	553.7	563.3	570.5	571.3
167.5°	543.3	544.7	546.3	546.6	548.6	551.2	552.6	555.8	562.1	566.8	567.2
170°	548.9	550.3	551.9	552.2	552.3	552.5	552.6	555.8	562.1	566.8	566.8
172.5°	551.9	552.2	552.5	552.6	552.6	552.6	552.6	555.1	560.1	563.8	563.6
175°	555.9	555.9	555.9	555.9	554.9	553.3	552.6	554.1	557.3	559.7	559.7
177.5°	555.9	555.9	555.9	555.9	555.0	553.9	553.3	554.6	557.0	558.9	558.6
180°	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9	555.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	563.0	563.0
2.5°	601.0	597.4
5°	773.0	776.6
7.5°	1041.0	1039.2
10°	1294.5	1310.8
12.5°	1479.1	1482.7
15°	1591.4	1598.6
17.5°	1634.8	1636.6
20°	1636.6	1633.0
22.5°	1616.7	1613.1
25°	1593.2	1591.4
27.5°	1571.5	1573.3
30°	1562.4	1567.8
32.5°	1562.4	1571.5
35°	1566.0	1575.1
37.5°	1564.2	1575.1
40°	1557.0	1569.6
42.5°	1537.1	1546.1
45°	1506.3	1517.1
47.5°	1466.5	1473.7
50°	1415.8	1423.0
52.5°	1352.4	1354.2
55°	1276.4	1283.6
57.5°	1194.9	1196.7
60°	1104.4	1109.8
62.5°	1008.3	1008.3
65°	907.0	910.6
67.5°	802.0	811.0
70°	695.2	697.0
72.5°	590.2	590.2
75°	481.5	483.4
77.5°	378.4	378.4
80°	280.6	282.4
82.5°	193.7	197.3
85°	121.3	121.3
87.5°	56.1	50.7
90°	14.2	14.2
92.5°	56.8	45.5
95°	198.0	163.8
97.5°	474.3	409.3
100°	683.4	605.9
102.5°	889.0	822.7
105°	1151.3	1115.6
107.5°	1323.1	1331.7
110°	1388.5	1425.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1394.4	1451.4
115°	1357.4	1436.5
117.5°	1279.1	1366.8
120°	1215.8	1301.1
122.5°	1154.4	1238.4
125°	1066.6	1144.0
127.5°	987.6	1053.0
130°	941.1	1001.5
132.5°	898.9	953.0
135°	841.1	887.7
137.5°	794.7	832.8
140°	762.8	798.4
142.5°	736.4	767.1
145°	697.0	720.1
147.5°	666.6	685.8
150°	647.5	663.0
152.5°	631.2	642.9
155°	612.3	620.1
157.5°	597.5	602.9
160°	588.6	591.8
162.5°	582.8	585.8
165°	574.4	577.6
167.5°	568.4	569.8
170°	566.8	566.8
172.5°	562.4	561.2
175°	559.7	559.7
177.5°	557.3	555.9
180°	555.9	555.9



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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	4.76	5.71	5.67	6.64	7.84	17.94	18.89	18.85	19.82	21.02
	3H	5.47	6.33	6.39	7.27	8.49	19.79	20.64	20.71	21.58	22.80
	4H	5.78	6.59	6.71	7.53	8.76	20.44	21.24	21.37	22.19	23.42
	6H	6.03	6.78	6.98	7.73	8.98	20.87	21.62	21.82	22.57	23.81
	8H	6.10	6.81	7.06	7.78	9.03	20.99	21.71	21.95	22.68	23.92
	12H	6.12	6.80	7.08	7.76	9.03	21.07	21.74	22.02	22.71	23.98
4H	2H	11.99	12.80	12.93	13.74	14.97	18.23	19.03	19.16	19.98	21.21
	3H	13.56	14.24	14.51	15.22	16.46	20.28	20.96	21.23	21.93	23.18
	4H	13.66	14.28	14.62	15.25	16.52	21.05	21.67	22.01	22.64	23.91
	6H	13.68	14.21	14.65	15.21	16.48	21.59	22.13	22.57	23.12	24.39
	8H	13.66	14.16	14.63	15.15	16.43	21.76	22.26	22.73	23.25	24.53
	12H	13.62	14.07	14.61	15.08	16.37	21.86	22.31	22.85	23.31	24.60
8H	4H	15.11	15.62	16.09	16.60	17.89	21.12	21.62	22.09	22.61	23.89
	6H	15.36	15.78	16.36	16.81	18.09	21.75	22.17	22.75	23.20	24.48
	8H	15.38	15.75	16.39	16.76	18.06	21.97	22.34	22.98	23.36	24.66
	12H	15.35	15.68	16.37	16.69	18.03	22.12	22.44	23.14	23.46	24.80
12H	4H	15.26	15.72	16.26	16.72	18.01	21.08	21.53	22.07	22.53	23.82
	6H	15.62	15.99	16.63	17.01	18.31	21.74	22.10	22.74	23.12	24.42
	8H	15.69	16.02	16.71	17.03	18.37	21.97	22.29	22.98	23.30	24.65