

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: P936839

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

**Test Information**

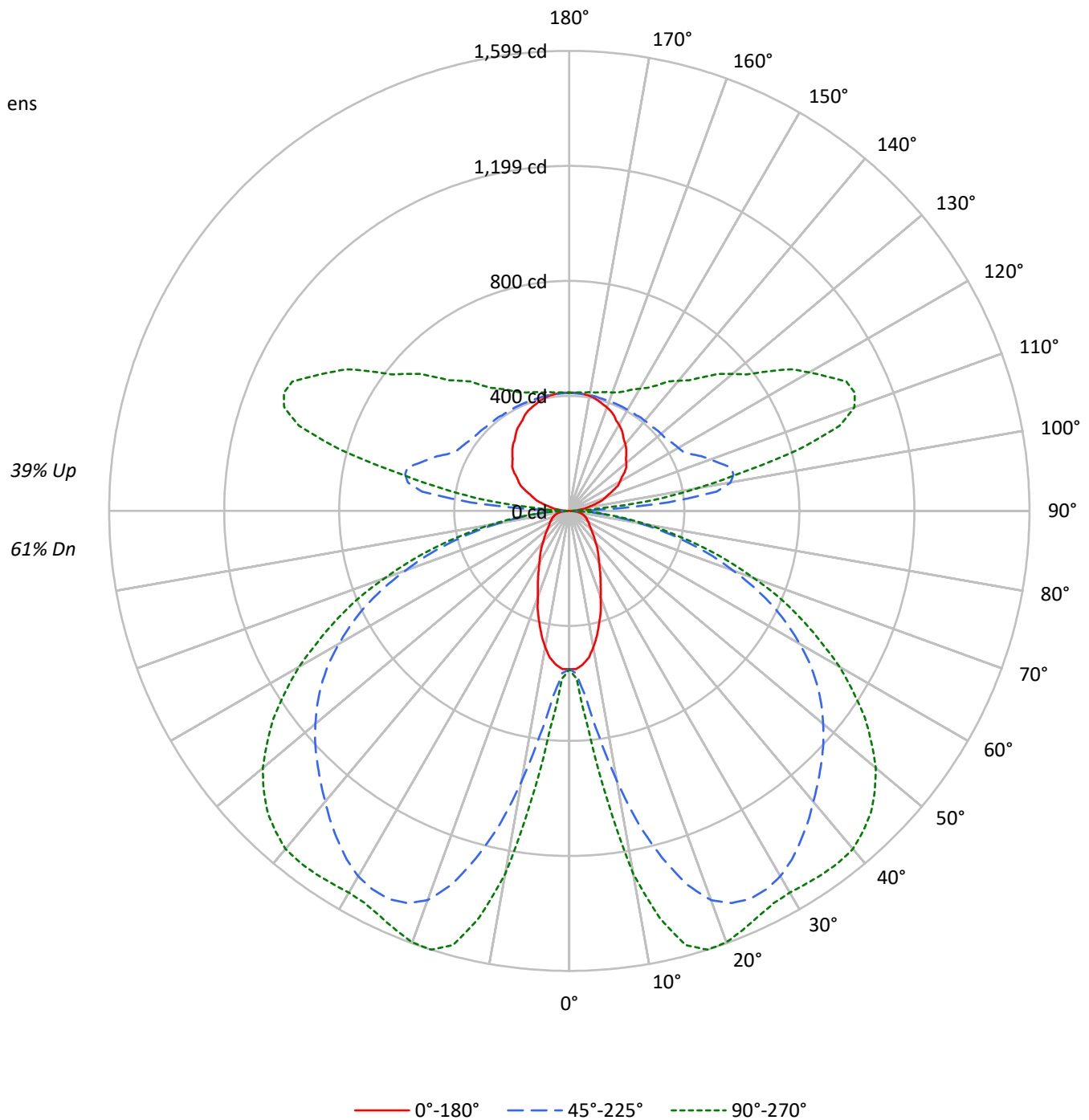
Test Method: LM-79-2019  
Report Number: P936839  
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-6-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6923.2 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 67.8  
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	50	30	10	0
RCR																					
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

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

	0°	45°	90°
0°	3403	3403	3403
5°	3324	3932	4575
10°	3013	5731	7584
15°	2561	7486	9158
20°	2083	8673	9333
25°	1737	9073	9143
30°	1465	9128	9126
35°	1294	8975	9363
40°	1127	8774	9606
45°	1020	8628	9644
50°	935	8496	9484
55°	894	8302	9063
60°	915	7934	8400
65°	950	7376	7488
70°	1010	6428	6326
75°	1114	5237	4936
80°	1208	3627	3327
85°	1055	1920	1702

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9644 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.2	1.0
10°-20°	315.4	4.6
20°-30°	551.7	8.0
30°-40°	710.2	10.3
40°-50°	793.3	11.5
50°-60°	759.8	11.0
60°-70°	602.1	8.7
70°-80°	354.1	5.1
80°-90°	99.9	1.4
90°-100°	200.4	2.9
100°-110°	527.0	7.6
110°-120°	546.4	7.9
120°-130°	438.3	6.3
130°-140°	343.9	5.0
140°-150°	264.0	3.8
150°-160°	190.1	2.7
160°-170°	116.3	1.7
170°-180°	39.3	0.6
0°-30°	938.3	13.6
0°-40°	1648.5	23.8
0°-60°	3201.5	46.2
0°-90°	4257.6	61.5
90°-120°	1273.8	18.4
90°-150°	2319.9	33.5
90°-180°	2666.0	38.5
0°-180°	6923.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	536	575	647	732	759	49
15°	402	741	1249	1514	1562	112
25°	256	840	1488	1553	1555	118
35°	173	803	1401	1481	1539	108
45°	118	640	1238	1419	1482	92
55°	85	407	1051	1221	1254	77
65°	67	216	780	877	890	67
75°	50	133	428	471	472	52
85°	18	41	106	117	118	19
90°	3	8	21	10	10	3
95°	26	104	345	178	121	29
105°	95	144	582	884	825	101
115°	169	205	467	931	1062	167
125°	235	263	424	717	846	208
135°	280	308	411	579	656	216
145°	324	345	406	494	533	203
155°	366	377	406	446	459	168
165°	395	401	406	422	427	112
175°	411	411	409	414	414	39
180°	411	411	411	411	411	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1
2.5°	550.1	550.1	553.7	555.5	559.0	560.7	564.3	567.9	578.4	580.2	583.8
5°	536.0	543.1	566.1	574.9	599.7	633.3	647.4	670.4	718.2	732.4	741.2
7.5°	514.8	530.7	587.3	601.4	663.4	751.9	789.0	838.5	914.6	951.7	981.8
10°	481.1	514.8	615.6	649.2	750.1	884.5	953.5	1022.5	1137.5	1188.8	1208.3
12.5°	444.0	498.9	645.7	691.7	836.7	1033.1	1116.2	1192.3	1323.2	1392.2	1402.8
15°	401.6	475.9	674.0	741.2	928.7	1156.9	1249.0	1342.7	1464.7	1514.2	1526.6
17.5°	364.5	458.2	700.5	771.3	999.5	1268.4	1362.1	1440.0	1539.1	1572.6	1581.5
20°	318.4	429.9	718.2	810.2	1073.8	1349.7	1440.0	1500.1	1567.4	1588.6	1592.1
22.5°	284.8	399.8	728.8	824.3	1123.3	1399.3	1475.3	1523.1	1569.1	1576.2	1578.0
25°	256.5	366.2	727.0	840.3	1165.8	1429.4	1487.7	1523.1	1549.7	1553.2	1553.2
27.5°	229.9	329.0	720.0	843.8	1197.6	1436.4	1482.4	1507.2	1519.6	1526.6	1526.6
30°	207.0	293.7	702.3	836.7	1211.7	1429.4	1466.5	1478.9	1491.3	1501.8	1507.2
32.5°	189.3	260.0	675.7	822.5	1213.5	1411.7	1438.2	1445.2	1462.9	1487.7	1496.6
35°	173.3	226.5	645.7	803.1	1202.9	1383.4	1401.1	1408.1	1443.5	1480.7	1493.0
37.5°	157.5	201.6	606.8	769.5	1187.0	1349.7	1362.1	1374.5	1429.4	1473.5	1487.7
40°	141.5	180.4	560.7	732.4	1162.2	1309.0	1319.6	1339.1	1411.7	1462.9	1477.1
42.5°	129.2	162.7	511.2	693.5	1130.4	1263.1	1278.9	1307.2	1390.4	1445.2	1461.2
45°	118.5	145.1	458.2	640.4	1089.7	1215.3	1238.3	1277.2	1365.6	1418.7	1432.9
47.5°	107.9	132.6	403.4	585.6	1045.4	1167.5	1197.6	1241.8	1332.1	1383.4	1395.7
50°	99.1	120.3	348.5	527.2	997.7	1116.2	1151.7	1197.6	1289.6	1337.3	1353.3
52.5°	92.0	109.7	297.2	468.8	942.9	1063.2	1103.8	1151.7	1238.3	1284.3	1294.9
55°	84.9	100.9	253.0	406.9	886.3	1006.5	1050.8	1096.8	1181.7	1220.6	1227.7
57.5°	81.4	93.7	215.8	348.5	826.1	942.9	992.4	1034.9	1114.4	1144.5	1151.7
60°	76.1	88.5	187.5	298.9	760.7	882.7	925.2	967.6	1034.9	1059.6	1064.9
62.5°	70.8	84.9	166.3	251.2	693.5	811.9	854.4	893.3	949.9	967.6	974.7
65°	67.2	81.4	150.4	215.8	624.5	737.7	780.1	813.7	859.8	877.4	880.9
67.5°	63.6	77.8	138.0	185.8	555.5	663.4	695.2	727.0	762.5	780.1	781.9
70°	58.4	74.3	127.4	164.5	484.7	578.4	605.0	638.6	666.9	675.7	681.1
72.5°	54.8	69.0	120.3	148.6	412.2	497.1	521.8	541.3	566.1	574.9	574.9
75°	49.5	61.9	113.2	132.6	337.9	406.9	428.1	447.6	467.0	470.6	465.2
77.5°	44.2	54.8	97.3	111.5	263.6	322.0	339.6	350.3	366.2	369.7	371.5
80°	37.1	47.8	76.1	86.7	191.0	237.1	249.4	258.2	272.4	272.4	276.0
82.5°	28.3	37.1	54.8	61.9	129.2	162.7	173.3	178.7	187.5	187.5	187.5
85°	17.7	23.0	35.3	40.7	77.8	99.1	106.1	107.9	115.0	116.8	116.8
87.5°	8.8	12.4	23.0	24.7	40.7	51.3	51.3	54.8	54.8	53.1	51.3
90°	2.8	5.0	7.2	7.8	12.1	18.0	21.0	18.7	13.9	10.4	10.4
92.5°	11.1	29.8	48.6	53.3	74.9	103.7	118.1	103.5	74.3	52.4	50.3
95°	26.5	60.8	95.2	103.7	184.2	291.6	345.3	308.1	233.8	178.0	171.7
97.5°	45.8	76.1	106.4	114.0	248.2	427.2	516.6	493.2	446.1	410.9	398.8
100°	60.7	88.2	115.7	122.6	271.4	470.1	569.3	571.0	574.5	577.1	562.8
102.5°	73.4	99.1	124.7	131.1	282.2	483.5	584.2	614.1	674.0	718.9	706.7
105°	95.0	116.7	138.4	143.8	290.0	485.0	582.5	649.6	783.8	884.5	877.9
107.5°	117.0	137.3	157.5	162.5	291.5	463.4	549.4	643.0	830.1	970.5	972.2
110°	131.9	150.1	168.4	173.0	289.3	444.3	521.8	626.4	835.8	992.7	999.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	146.6	164.0	181.4	185.8	289.4	427.7	496.7	603.9	818.0	978.6	989.1
115°	168.6	184.7	200.8	204.8	292.1	408.5	466.7	569.8	776.1	930.8	945.5
117.5°	190.4	205.0	219.6	223.2	297.5	396.5	446.0	539.1	725.3	864.9	881.1
120°	203.1	216.8	230.6	234.0	301.9	392.4	437.7	522.7	692.9	820.4	836.2
122.5°	215.6	229.4	243.2	246.7	308.2	390.3	431.3	507.9	661.2	776.0	791.6
125°	234.6	247.2	259.8	263.0	316.8	388.6	424.4	489.5	619.7	717.2	731.5
127.5°	250.0	262.8	275.6	278.8	325.4	387.6	418.6	474.5	586.2	670.0	682.1
130°	258.3	272.1	285.8	289.2	331.6	388.1	416.4	466.1	565.7	640.3	651.4
132.5°	266.9	280.6	294.4	297.8	336.7	388.6	414.5	459.1	548.1	614.8	624.8
135°	279.6	292.1	304.6	307.7	342.2	388.2	411.2	448.5	523.1	579.0	587.6
137.5°	292.5	304.9	317.2	320.4	350.4	390.5	410.6	442.1	505.1	552.4	559.5
140°	303.3	314.7	326.1	328.9	355.5	391.0	408.7	436.0	490.4	531.2	537.8
142.5°	311.5	322.1	332.6	335.3	359.7	392.4	408.7	432.7	480.4	516.3	522.0
145°	324.3	333.5	342.7	345.0	365.3	392.4	406.0	425.5	464.6	494.0	498.3
147.5°	337.0	345.9	354.9	357.1	373.4	395.1	406.0	421.3	452.1	475.2	478.8
150°	345.3	353.4	361.4	363.5	377.7	396.5	406.0	419.0	445.0	464.4	467.3
152.5°	353.7	359.9	366.1	367.6	380.3	397.4	406.0	417.0	439.3	455.9	458.0
155°	366.5	371.1	375.5	376.7	386.4	399.4	406.0	414.8	432.5	445.7	447.1
157.5°	375.9	380.3	384.7	385.8	392.5	401.5	406.0	412.8	426.6	436.8	437.8
160°	382.2	385.6	389.0	389.9	395.3	402.4	406.0	411.9	423.6	432.5	433.0
162.5°	388.6	391.1	393.7	394.4	398.2	403.4	406.0	411.0	420.9	428.3	428.8
165°	395.4	397.8	400.1	400.7	402.5	404.8	406.0	409.5	416.6	421.9	422.6
167.5°	401.8	402.8	404.0	404.3	405.8	407.7	408.7	411.1	415.7	419.2	419.4
170°	406.0	407.0	408.2	408.5	408.6	408.6	408.7	411.1	415.7	419.2	419.2
172.5°	408.2	408.5	408.6	408.7	408.7	408.7	408.7	410.5	414.2	416.9	416.8
175°	411.2	411.2	411.2	411.2	410.4	409.3	408.7	409.9	412.2	413.9	413.9
177.5°	411.2	411.2	411.2	411.2	410.6	409.7	409.3	410.2	412.0	413.4	413.1
180°	411.2	411.2	411.2	411.2	411.2	411.2	411.2	411.2	411.2	411.2	411.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	550.1	550.1
2.5°	587.3	583.8
5°	755.3	758.9
7.5°	1017.1	1015.4
10°	1264.8	1280.7
12.5°	1445.2	1448.8
15°	1554.9	1562.0
17.5°	1597.4	1599.1
20°	1599.1	1595.6
22.5°	1579.7	1576.2
25°	1556.7	1554.9
27.5°	1535.5	1537.3
30°	1526.6	1531.9
32.5°	1526.6	1535.5
35°	1530.2	1539.1
37.5°	1528.4	1539.1
40°	1521.3	1533.7
42.5°	1501.8	1510.8
45°	1471.8	1482.4
47.5°	1432.9	1440.0
50°	1383.4	1390.4
52.5°	1321.4	1323.2
55°	1247.2	1254.2
57.5°	1167.5	1169.3
60°	1079.1	1084.4
62.5°	985.4	985.4
65°	886.3	889.8
67.5°	783.6	792.5
70°	679.3	681.1
72.5°	576.7	576.7
75°	470.6	472.3
77.5°	369.7	369.7
80°	274.2	276.0
82.5°	189.3	192.8
85°	118.5	118.5
87.5°	54.8	49.5
90°	10.4	10.4
92.5°	42.0	33.7
95°	146.4	121.1
97.5°	350.8	302.8
100°	505.5	448.2
102.5°	657.6	608.5
105°	851.6	825.1
107.5°	978.5	984.9
110°	1027.0	1054.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1031.3	1073.5
115°	1003.9	1062.5
117.5°	946.0	1010.9
120°	899.2	962.3
122.5°	853.8	915.9
125°	788.8	846.1
127.5°	730.4	778.8
130°	696.1	740.7
132.5°	664.8	704.8
135°	622.1	656.5
137.5°	587.8	616.0
140°	564.1	590.6
142.5°	544.7	567.3
145°	515.5	532.6
147.5°	493.0	507.2
150°	478.9	490.4
152.5°	466.8	475.5
155°	452.9	458.6
157.5°	441.9	446.0
160°	435.3	437.7
162.5°	431.0	433.3
165°	424.9	427.2
167.5°	420.4	421.4
170°	419.2	419.2
172.5°	415.9	415.1
175°	413.9	413.9
177.5°	412.2	411.2
180°	411.2	411.2



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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	6.24	7.26	7.08	8.14	9.23	19.40	20.43	20.25	21.30	22.39
	3H	6.96	7.88	7.81	8.76	9.88	21.25	22.17	22.11	23.05	24.17
	4H	7.26	8.14	8.13	9.02	10.15	21.90	22.77	22.77	23.66	24.79
	6H	7.52	8.33	8.40	9.22	10.37	22.33	23.14	23.22	24.04	25.18
	8H	7.59	8.36	8.49	9.28	10.42	22.46	23.23	23.35	24.14	25.28
	12H	7.62	8.35	8.52	9.26	10.43	22.53	23.26	23.43	24.17	25.34
4H	2H	13.47	14.34	14.34	15.23	16.36	19.70	20.57	20.57	21.46	22.59
	3H	15.05	15.78	15.94	16.70	17.85	21.75	22.49	22.64	23.41	24.55
	4H	15.15	15.82	16.05	16.74	17.91	22.52	23.19	23.43	24.11	25.28
	6H	15.17	15.75	16.09	16.69	17.86	23.07	23.65	23.98	24.59	25.76
	8H	15.15	15.70	16.07	16.63	17.82	23.23	23.78	24.15	24.71	25.90
	12H	15.12	15.61	16.06	16.56	17.75	23.33	23.82	24.27	24.77	25.97
8H	4H	16.61	17.15	17.52	18.08	19.27	22.60	23.14	23.52	24.08	25.26
	6H	16.86	17.31	17.80	18.28	19.47	23.23	23.68	24.18	24.66	25.84
	8H	16.88	17.28	17.83	18.24	19.44	23.45	23.85	24.41	24.82	26.02
	12H	16.85	17.20	17.81	18.16	19.42	23.60	23.95	24.56	24.91	26.16
12H	4H	16.76	17.25	17.70	18.20	19.39	22.56	23.05	23.50	24.00	25.20
	6H	17.12	17.52	18.07	18.48	19.68	23.22	23.62	24.17	24.58	25.79
	8H	17.19	17.55	18.15	18.50	19.76	23.45	23.81	24.41	24.76	26.02