

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: P936776

Luminaire Tested: SQ4-FB-050U-075D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

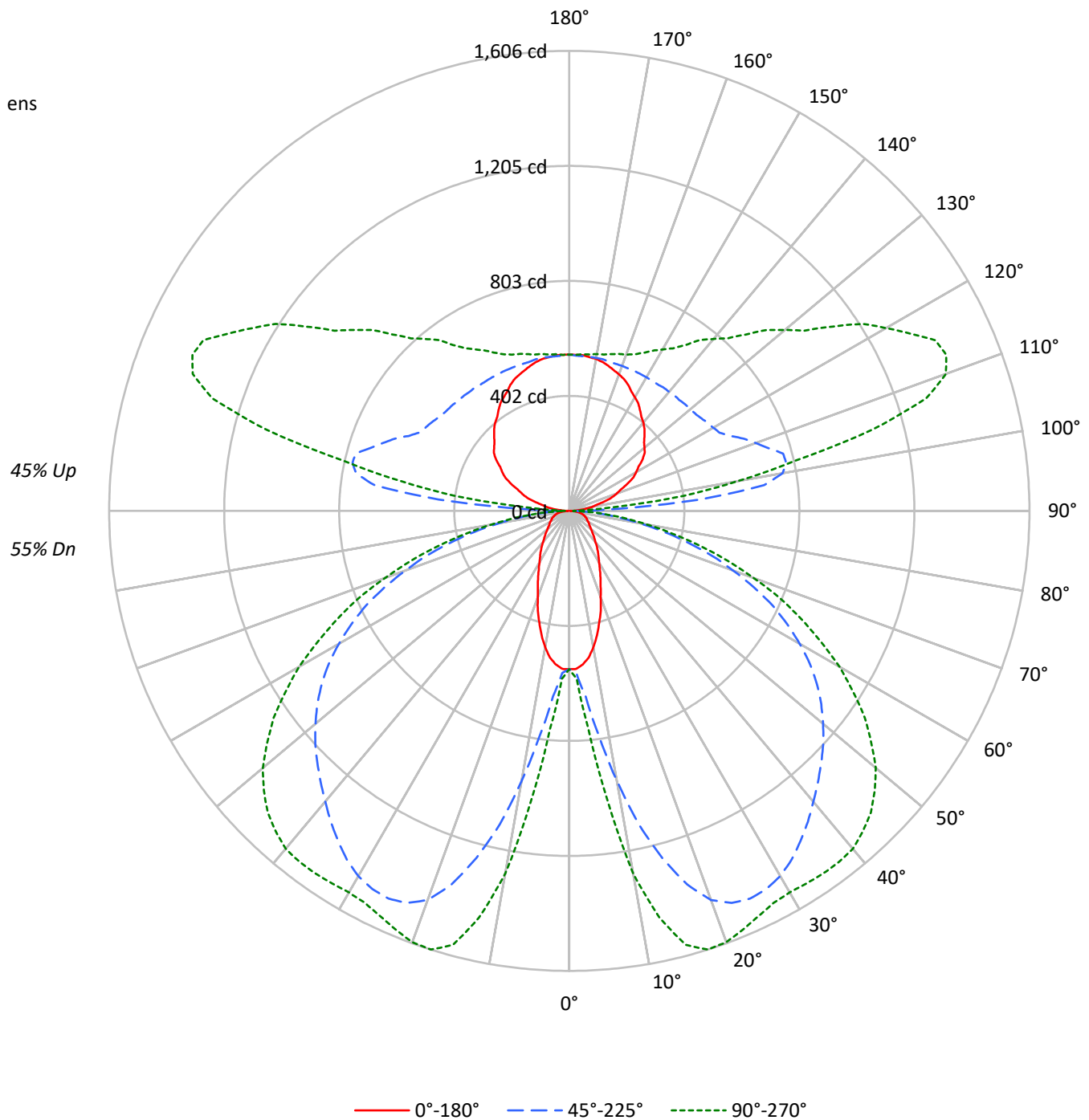
Test Method: LM-79-2019  
Report Number: P936776  
REPORT IS A COMBINATION OF REPORTS P933486 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7810.9 lumens  
Efficiency: N/A  
Efficacy: 107.3 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°	2562	2562	2562
5°	2503	2962	3445
10°	2271	4318	5711
15°	1930	5641	6896
20°	1571	6537	7028
25°	1311	6841	6885
30°	1105	6884	6872
35°	977	6770	7050
40°	852	6621	7234
45°	771	6512	7262
50°	708	6415	7141
55°	677	6271	6825
60°	694	5995	6325
65°	722	5577	5638
70°	769	4863	4763
75°	851	3965	3717
80°	931	2750	2505
85°	829	1460	1282

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7262 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.4	0.9
10°-20°	316.7	4.1
20°-30°	553.9	7.1
30°-40°	713.0	9.1
40°-50°	796.4	10.2
50°-60°	762.8	9.8
60°-70°	604.5	7.7
70°-80°	355.5	4.6
80°-90°	100.8	1.3
90°-100°	265.9	3.4
100°-110°	699.0	8.9
110°-120°	724.8	9.3
120°-130°	581.3	7.4
130°-140°	456.2	5.8
140°-150°	350.1	4.5
150°-160°	252.1	3.2
160°-170°	154.3	2.0
170°-180°	52.1	0.7
0°-30°	942.0	12.1
0°-40°	1655.1	21.2
0°-60°	3214.3	41.2
0°-90°	4275.1	54.7
90°-120°	1689.6	21.6
90°-150°	3077.2	39.4
90°-180°	3536.0	45.3
0°-180°	7810.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	538	577	650	735	762	50
15°	403	744	1254	1520	1568	112
25°	258	844	1494	1559	1561	119
35°	174	806	1407	1487	1545	109
45°	119	643	1243	1424	1488	92
55°	85	408	1055	1226	1259	78
65°	68	217	783	881	893	67
75°	50	133	430	472	474	52
85°	18	41	107	117	119	19
90°	4	10	28	14	14	4
95°	35	138	458	236	161	39
105°	126	191	773	1173	1094	133
115°	224	272	619	1235	1409	221
125°	311	349	563	951	1122	276
135°	371	408	545	768	871	287
145°	430	458	538	655	706	269
155°	486	500	538	591	608	223
165°	524	532	538	560	567	148
175°	545	545	542	549	549	52
180°	545	545	545	545	545	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3
2.5°	552.3	552.3	555.9	557.7	561.2	563.0	566.5	570.1	580.8	582.5	586.1
5°	538.1	545.2	568.3	577.2	602.1	635.8	650.0	673.1	721.1	735.3	744.1
7.5°	516.8	532.8	589.6	603.8	666.0	754.8	792.1	841.8	918.2	955.5	985.7
10°	483.1	516.8	618.0	651.8	753.0	888.0	957.3	1026.6	1142.1	1193.6	1213.1
12.5°	445.8	500.8	648.2	694.4	840.0	1037.3	1120.7	1197.1	1328.5	1397.8	1408.5
15°	403.2	477.7	676.7	744.1	932.4	1161.6	1253.9	1348.1	1470.6	1520.3	1532.8
17.5°	365.9	460.0	703.3	774.3	1003.4	1273.5	1367.6	1445.8	1545.2	1579.0	1587.8
20°	319.7	431.6	721.1	813.4	1078.1	1355.2	1445.8	1506.1	1573.6	1594.9	1598.5
22.5°	285.9	401.4	731.7	827.6	1127.8	1404.9	1481.3	1529.2	1575.4	1582.5	1584.3
25°	257.5	367.6	729.9	843.6	1170.5	1435.1	1493.7	1529.2	1555.9	1559.4	1559.4
27.5°	230.9	330.3	722.8	847.2	1202.4	1442.2	1488.4	1513.2	1525.7	1532.8	1532.8
30°	207.8	294.8	705.1	840.0	1216.6	1435.1	1472.4	1484.8	1497.3	1507.9	1513.2
32.5°	190.0	261.1	678.4	825.8	1218.4	1417.3	1444.0	1451.1	1468.8	1493.7	1502.6
35°	174.0	227.3	648.2	806.3	1207.8	1388.9	1406.7	1413.8	1449.3	1486.6	1499.0
37.5°	158.1	202.5	609.2	772.6	1191.8	1355.2	1367.6	1380.0	1435.1	1479.5	1493.7
40°	142.1	181.2	563.0	735.3	1166.9	1314.3	1325.0	1344.5	1417.3	1468.8	1483.0
42.5°	129.6	163.4	513.3	696.2	1135.0	1268.2	1284.1	1312.6	1396.0	1451.1	1467.1
45°	119.0	145.6	460.0	642.9	1094.1	1220.2	1243.3	1282.4	1371.2	1424.4	1438.6
47.5°	108.3	133.2	404.9	587.9	1049.7	1172.2	1202.4	1246.8	1337.4	1388.9	1401.4
50°	99.5	120.8	349.9	529.2	1001.7	1120.7	1156.3	1202.4	1294.8	1342.7	1358.7
52.5°	92.4	110.1	298.4	470.6	946.6	1067.5	1108.3	1156.3	1243.3	1289.5	1300.1
55°	85.2	101.2	254.0	408.5	889.8	1010.6	1055.0	1101.2	1186.5	1225.5	1232.6
57.5°	81.7	94.1	216.7	349.9	829.4	946.6	996.3	1039.0	1119.0	1149.2	1156.3
60°	76.4	88.8	188.3	300.1	763.7	886.2	928.8	971.5	1039.0	1063.9	1069.2
62.5°	71.0	85.2	166.9	252.2	696.2	815.2	857.8	896.9	953.7	971.5	978.6
65°	67.5	81.7	151.0	216.7	626.9	740.6	783.2	817.0	863.1	880.9	884.4
67.5°	63.9	78.1	138.5	186.5	557.7	666.0	698.0	729.9	765.5	783.2	785.0
70°	58.6	74.6	127.9	165.2	486.6	580.8	607.4	641.1	669.6	678.4	683.8
72.5°	55.1	69.3	120.8	149.2	413.8	499.1	523.9	543.5	568.3	577.2	577.2
75°	49.7	62.2	113.7	133.2	339.2	408.5	429.8	449.3	468.9	472.4	467.1
77.5°	44.4	55.1	97.7	111.9	264.6	323.2	341.0	351.6	367.6	371.2	373.0
80°	37.3	48.0	76.4	87.0	191.8	238.0	250.4	259.3	273.5	273.5	277.1
82.5°	28.4	37.3	55.1	62.2	129.6	163.4	174.0	179.4	188.3	188.3	188.3
85°	17.8	23.1	35.5	40.8	78.1	99.5	106.6	108.3	115.4	117.2	117.2
87.5°	8.9	12.4	23.1	24.9	40.8	51.5	51.5	55.1	55.1	53.3	51.5
90°	3.6	6.6	9.5	10.2	16.1	23.9	27.8	24.7	18.6	13.9	13.9
92.5°	14.7	39.5	64.5	70.7	99.4	137.6	156.6	137.3	98.6	69.5	66.8
95°	35.2	80.7	126.3	137.6	244.4	386.7	457.9	408.7	310.1	236.1	227.8
97.5°	60.7	100.9	141.1	151.1	329.2	566.5	685.3	654.1	591.8	545.1	529.1
100°	80.5	116.9	153.4	162.5	360.1	623.5	755.2	757.5	762.0	765.4	746.4
102.5°	97.4	131.4	165.3	173.9	374.2	641.4	775.0	814.7	894.0	953.5	937.3
105°	125.9	154.7	183.5	190.7	384.8	643.4	772.7	861.7	1039.8	1173.2	1164.4
107.5°	155.2	182.0	208.9	215.6	386.6	614.8	728.8	852.9	1101.2	1287.4	1289.6
110°	174.9	199.2	223.5	229.5	383.8	589.4	692.2	831.0	1108.5	1316.6	1325.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	194.4	217.5	240.6	246.3	383.9	567.3	658.9	800.9	1085.0	1298.0	1312.0
115°	223.7	245.0	266.3	271.6	387.4	541.9	619.0	755.9	1029.5	1234.7	1254.0
117.5°	252.5	271.9	291.3	296.1	394.6	525.9	591.5	715.0	962.0	1147.2	1168.7
120°	269.4	287.6	305.9	310.4	400.5	520.5	580.6	693.4	919.0	1088.2	1109.1
122.5°	285.8	304.2	322.6	327.2	408.8	517.7	572.1	673.7	877.0	1029.4	1050.0
125°	311.2	327.8	344.6	348.8	420.2	515.4	563.0	649.3	821.9	951.4	970.4
127.5°	331.7	348.5	365.4	369.7	431.6	514.1	555.3	629.4	777.6	888.8	904.8
130°	342.6	360.8	379.1	383.6	439.8	514.9	552.3	618.3	750.3	849.2	864.0
132.5°	354.0	372.2	390.5	395.0	446.6	515.4	549.8	608.9	727.0	815.5	828.8
135°	370.8	387.4	404.0	408.1	453.9	514.9	545.4	594.9	693.8	767.9	779.4
137.5°	388.1	404.5	420.9	425.0	464.9	518.1	544.7	586.5	670.2	732.9	742.2
140°	402.3	417.4	432.5	436.4	471.6	518.6	542.1	578.3	650.5	704.6	713.3
142.5°	413.3	427.2	441.2	444.7	477.2	520.5	542.1	573.8	637.3	684.9	692.5
145°	430.1	442.3	454.6	457.6	484.6	520.5	538.5	564.4	616.4	655.3	660.9
147.5°	446.9	458.8	470.7	473.7	495.2	524.1	538.5	558.9	599.7	630.3	635.0
150°	457.9	468.7	479.4	482.1	500.9	526.0	538.5	555.7	590.3	616.1	619.9
152.5°	469.3	477.5	485.6	487.6	504.6	527.2	538.5	553.2	582.6	604.7	607.7
155°	486.1	492.1	498.2	499.7	512.6	529.9	538.5	550.2	573.6	591.1	593.1
157.5°	498.5	504.4	510.2	511.8	520.6	532.5	538.5	547.5	565.7	579.4	580.8
160°	507.0	511.6	516.1	517.3	524.4	533.8	538.5	546.3	561.8	573.6	574.4
162.5°	515.4	518.9	522.2	523.1	528.3	535.1	538.5	545.1	558.3	568.1	568.9
165°	524.5	527.6	530.7	531.5	533.8	536.9	538.5	543.2	552.6	559.7	560.5
167.5°	533.0	534.4	535.9	536.3	538.2	540.8	542.1	545.2	551.4	556.1	556.4
170°	538.5	539.9	541.4	541.8	541.9	542.0	542.1	545.2	551.4	556.1	556.1
172.5°	541.4	541.8	542.0	542.1	542.1	542.1	542.1	544.6	549.5	553.1	552.9
175°	545.4	545.4	545.4	545.4	544.3	542.8	542.1	543.6	546.7	549.1	549.1
177.5°	545.4	545.4	545.4	545.4	544.5	543.4	542.8	544.1	546.5	548.3	548.0
180°	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	552.3	552.3
2.5°	589.6	586.1
5°	758.4	761.9
7.5°	1021.3	1019.5
10°	1269.9	1285.9
12.5°	1451.1	1454.6
15°	1561.2	1568.3
17.5°	1603.8	1605.6
20°	1605.6	1602.0
22.5°	1586.1	1582.5
25°	1563.0	1561.2
27.5°	1541.7	1543.4
30°	1532.8	1538.1
32.5°	1532.8	1541.7
35°	1536.3	1545.2
37.5°	1534.6	1545.2
40°	1527.4	1539.9
42.5°	1507.9	1516.8
45°	1477.7	1488.4
47.5°	1438.6	1445.8
50°	1388.9	1396.0
52.5°	1326.8	1328.5
55°	1252.2	1259.3
57.5°	1172.2	1174.0
60°	1083.4	1088.8
62.5°	989.2	989.2
65°	889.8	893.3
67.5°	786.8	795.6
70°	682.0	683.8
72.5°	579.0	579.0
75°	472.4	474.2
77.5°	371.2	371.2
80°	275.3	277.1
82.5°	190.0	193.6
85°	119.0	119.0
87.5°	55.1	49.7
90°	13.9	13.9
92.5°	55.7	44.7
95°	194.2	160.7
97.5°	465.3	401.6
100°	670.4	594.4
102.5°	872.2	807.1
105°	1129.4	1094.5
107.5°	1298.0	1306.4
110°	1362.2	1398.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1368.0	1423.9
115°	1331.6	1409.3
117.5°	1254.8	1340.9
120°	1192.8	1276.4
122.5°	1132.5	1215.0
125°	1046.3	1122.3
127.5°	968.9	1033.0
130°	923.3	982.5
132.5°	881.9	934.9
135°	825.1	870.9
137.5°	779.7	817.0
140°	748.3	783.3
142.5°	722.5	752.6
145°	683.8	706.5
147.5°	653.9	672.8
150°	635.2	650.5
152.5°	619.2	630.7
155°	600.7	608.4
157.5°	586.2	591.5
160°	577.5	580.6
162.5°	571.8	574.7
165°	563.5	566.6
167.5°	557.7	559.0
170°	556.1	556.1
172.5°	551.7	550.6
175°	549.1	549.1
177.5°	546.7	545.4
180°	545.4	545.4



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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	4.70	5.64	5.60	6.58	7.78	17.87	18.82	18.78	19.76	20.95
	3H	5.41	6.26	6.33	7.20	8.42	19.72	20.57	20.64	21.52	22.74
	4H	5.71	6.52	6.64	7.47	8.70	20.37	21.18	21.30	22.12	23.36
	6H	5.97	6.71	6.91	7.66	8.91	20.80	21.55	21.75	22.50	23.75
	8H	6.04	6.75	6.99	7.72	8.96	20.93	21.64	21.88	22.61	23.85
	12H	6.06	6.73	7.02	7.70	8.97	21.00	21.68	21.96	22.64	23.91
4H	2H	11.92	12.73	12.86	13.68	14.91	18.16	18.97	19.10	19.91	21.15
	3H	13.50	14.17	14.45	15.15	16.40	20.21	20.89	21.16	21.87	23.11
	4H	13.60	14.21	14.56	15.19	16.46	20.98	21.60	21.94	22.57	23.84
	6H	13.61	14.15	14.58	15.14	16.41	21.53	22.06	22.50	23.06	24.33
	8H	13.59	14.09	14.57	15.08	16.36	21.69	22.19	22.67	23.18	24.47
	12H	13.55	14.00	14.55	15.01	16.30	21.79	22.24	22.79	23.25	24.54
8H	4H	15.05	15.55	16.02	16.54	17.82	21.05	21.55	22.03	22.54	23.82
	6H	15.29	15.71	16.29	16.74	18.02	21.68	22.10	22.69	23.13	24.41
	8H	15.31	15.68	16.32	16.70	18.00	21.91	22.27	22.92	23.29	24.59
	12H	15.29	15.61	16.30	16.62	17.97	22.05	22.38	23.07	23.39	24.74
12H	4H	15.20	15.65	16.19	16.65	17.94	21.01	21.46	22.00	22.47	23.76
	6H	15.55	15.92	16.56	16.94	18.24	21.67	22.04	22.68	23.05	24.35
	8H	15.63	15.95	16.64	16.96	18.31	21.90	22.23	22.92	23.24	24.58