

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: P936747

Luminaire Tested: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

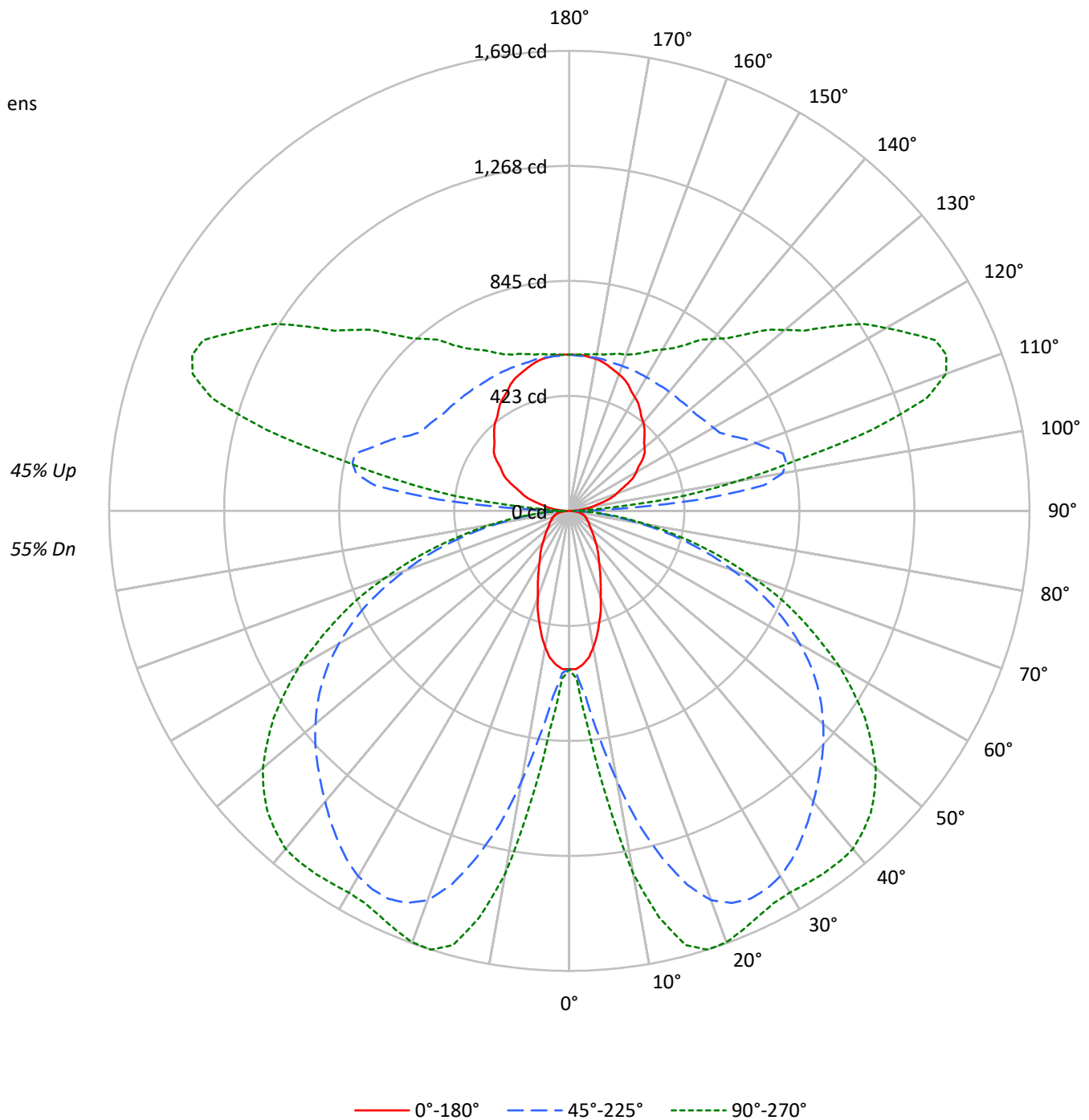
Test Method: LM-79-2019  
Report Number: P936747  
REPORT IS A COMBINATION OF REPORTS P933486 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8221.7 lumens  
Efficiency: N/A  
Efficacy: 112.9 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	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°	2697	2697	2697
5°	2635	3118	3626
10°	2390	4545	6011
15°	2032	5938	7259
20°	1654	6881	7397
25°	1380	7201	7247
30°	1163	7246	7233
35°	1029	7126	7421
40°	897	6969	7614
45°	812	6855	7644
50°	745	6752	7517
55°	713	6601	7184
60°	730	6311	6658
65°	759	5870	5934
70°	809	5119	5013
75°	896	4174	3912
80°	981	2895	2636
85°	871	1536	1350

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7644 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.2	0.9
10°-20°	333.3	4.1
20°-30°	583.0	7.1
30°-40°	750.5	9.1
40°-50°	838.3	10.2
50°-60°	802.9	9.8
60°-70°	636.3	7.7
70°-80°	374.2	4.6
80°-90°	106.1	1.3
90°-100°	279.8	3.4
100°-110°	735.7	8.9
110°-120°	762.9	9.3
120°-130°	611.9	7.4
130°-140°	480.1	5.8
140°-150°	368.5	4.5
150°-160°	265.4	3.2
160°-170°	162.4	2.0
170°-180°	54.9	0.7
0°-30°	991.6	12.1
0°-40°	1742.1	21.2
0°-60°	3383.4	41.2
0°-90°	4500.0	54.7
90°-120°	1778.5	21.6
90°-150°	3239.0	39.4
90°-180°	3722.0	45.3
0°-180°	8221.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	566	608	684	774	802	52
15°	424	783	1320	1600	1651	118
25°	271	888	1572	1641	1643	125
35°	183	849	1481	1565	1626	114
45°	125	677	1309	1499	1567	97
55°	90	430	1110	1290	1326	82
65°	71	228	824	927	940	70
75°	52	140	452	497	499	55
85°	19	43	112	123	125	20
90°	4	11	29	15	15	4
95°	37	145	482	248	169	41
105°	132	201	813	1235	1152	141
115°	236	286	652	1300	1483	233
125°	328	367	593	1001	1181	291
135°	390	430	574	808	917	302
145°	453	482	567	690	744	284
155°	512	526	567	622	640	235
165°	552	559	567	589	596	156
175°	574	574	571	578	578	54
180°	574	574	574	574	574	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4
2.5°	581.4	581.4	585.1	587.0	590.7	592.6	596.3	600.1	611.3	613.2	616.9
5°	566.4	573.9	598.2	607.6	633.7	669.2	684.2	708.5	759.0	773.9	783.3
7.5°	544.0	560.8	620.6	635.6	701.0	794.5	833.8	886.1	966.5	1005.7	1037.5
10°	508.5	544.0	650.6	686.1	792.6	934.7	1007.6	1080.6	1202.1	1256.3	1276.9
12.5°	469.2	527.2	682.3	730.9	884.2	1091.8	1179.7	1260.1	1398.4	1471.3	1482.5
15°	424.4	502.9	712.2	783.3	981.4	1222.7	1319.9	1419.0	1548.0	1600.3	1613.4
17.5°	385.1	484.2	740.3	815.1	1056.2	1340.5	1439.5	1521.8	1626.5	1662.0	1671.3
20°	336.5	454.3	759.0	856.2	1134.8	1426.5	1521.8	1585.4	1656.4	1678.8	1682.6
22.5°	301.0	422.5	770.2	871.1	1187.2	1478.8	1559.2	1609.7	1658.3	1665.7	1667.6
25°	271.1	387.0	768.3	888.0	1232.0	1510.6	1572.3	1609.7	1637.7	1641.4	1641.4
27.5°	243.0	347.7	760.9	891.7	1265.7	1518.1	1566.7	1592.8	1605.9	1613.4	1613.4
30°	218.7	310.3	742.2	884.2	1280.6	1510.6	1549.8	1562.9	1576.0	1587.2	1592.8
32.5°	200.0	274.8	714.1	869.3	1282.5	1491.9	1519.9	1527.4	1546.1	1572.3	1581.6
35°	183.2	239.3	682.3	848.7	1271.3	1462.0	1480.7	1488.1	1525.5	1564.8	1577.9
37.5°	166.4	213.1	641.2	813.2	1254.5	1426.5	1439.5	1452.6	1510.6	1557.3	1572.3
40°	149.6	190.7	592.6	773.9	1228.3	1383.5	1394.7	1415.2	1491.9	1546.1	1561.1
42.5°	136.5	172.0	540.3	732.8	1194.6	1334.9	1351.7	1381.6	1469.5	1527.4	1544.2
45°	125.3	153.3	484.2	676.7	1151.7	1284.4	1308.7	1349.8	1443.3	1499.4	1514.3
47.5°	114.0	140.2	426.2	618.8	1104.9	1233.9	1265.7	1312.4	1407.8	1462.0	1475.1
50°	104.7	127.1	368.3	557.1	1054.3	1179.7	1217.1	1265.7	1362.9	1413.4	1430.2
52.5°	97.2	115.9	314.1	495.4	996.4	1123.6	1166.6	1217.1	1308.7	1357.3	1368.5
55°	89.7	106.6	267.3	430.0	936.6	1063.8	1110.5	1159.1	1248.9	1290.0	1297.5
57.5°	86.0	99.1	228.1	368.3	873.0	996.4	1048.7	1093.7	1177.8	1209.6	1217.1
60°	80.4	93.5	198.2	315.9	803.8	932.8	977.7	1022.6	1093.7	1119.9	1125.5
62.5°	74.8	89.7	175.7	265.5	732.8	858.1	902.9	944.1	1003.9	1022.6	1030.0
65°	71.0	86.0	158.9	228.1	659.9	779.5	824.4	859.9	908.5	927.2	931.0
67.5°	67.3	82.3	145.8	196.3	587.0	701.0	734.7	768.3	805.7	824.4	826.3
70°	61.7	78.5	134.6	173.9	512.2	611.3	639.3	674.9	704.8	714.1	719.7
72.5°	58.0	72.9	127.1	157.0	435.6	525.3	551.5	572.0	598.2	607.6	607.6
75°	52.3	65.4	119.6	140.2	357.1	430.0	452.4	473.0	493.5	497.3	491.7
77.5°	46.7	58.0	102.8	117.8	278.5	340.2	358.9	370.1	387.0	390.7	392.6
80°	39.3	50.5	80.4	91.6	201.9	250.5	263.6	272.9	287.9	287.9	291.6
82.5°	29.9	39.3	58.0	65.4	136.5	172.0	183.2	188.8	198.2	198.2	198.2
85°	18.7	24.3	37.4	43.0	82.3	104.7	112.2	114.0	121.5	123.4	123.4
87.5°	9.3	13.1	24.3	26.2	43.0	54.2	54.2	58.0	58.0	56.1	54.2
90°	3.8	6.9	10.0	10.7	16.9	25.1	29.3	26.0	19.5	14.7	14.7
92.5°	15.4	41.6	67.9	74.4	104.6	144.8	164.9	144.5	103.8	73.2	70.3
95°	37.0	85.0	132.9	144.9	257.2	407.1	482.0	430.2	326.4	248.5	239.8
97.5°	63.9	106.2	148.5	159.1	346.5	596.3	721.3	688.5	622.9	573.7	556.9
100°	84.8	123.1	161.4	171.1	379.0	656.3	794.9	797.3	802.1	805.6	785.6
102.5°	102.5	138.3	174.0	183.0	393.9	675.1	815.7	857.5	941.1	1003.7	986.6
105°	132.5	162.8	193.2	200.8	405.0	677.3	813.4	907.0	1094.4	1234.9	1225.7
107.5°	163.4	191.6	219.8	226.9	407.0	647.1	767.1	897.8	1159.1	1355.1	1357.4
110°	184.1	209.7	235.3	241.6	404.0	620.4	728.6	874.7	1166.8	1385.9	1395.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	204.6	228.9	253.2	259.3	404.1	597.1	693.6	843.0	1142.0	1366.3	1381.0
115°	235.5	257.9	280.3	285.9	407.8	570.4	651.6	795.6	1083.6	1299.6	1320.0
117.5°	265.8	286.2	306.6	311.7	415.4	553.5	622.6	752.6	1012.6	1207.5	1230.2
120°	283.6	302.8	322.0	326.8	421.6	547.9	611.1	729.8	967.3	1145.5	1167.4
122.5°	300.9	320.2	339.6	344.4	430.3	544.9	602.2	709.2	923.1	1083.5	1105.2
125°	327.5	345.1	362.8	367.2	442.3	542.5	592.6	683.5	865.2	1001.4	1021.4
127.5°	349.1	366.9	384.6	389.1	454.3	541.1	584.5	662.5	818.5	935.5	952.4
130°	360.6	379.8	399.0	403.8	463.0	541.9	581.4	650.8	789.7	893.9	909.5
132.5°	372.6	391.7	411.0	415.8	470.1	542.5	578.8	640.9	765.2	858.4	872.4
135°	390.3	407.8	425.2	429.6	477.7	541.9	574.1	626.2	730.3	808.3	820.4
137.5°	408.5	425.8	443.1	447.4	489.3	545.3	573.3	617.4	705.4	771.4	781.2
140°	423.4	439.4	455.3	459.3	496.4	545.9	570.6	608.7	684.7	741.7	750.8
142.5°	435.0	449.7	464.5	468.1	502.3	547.8	570.6	604.0	670.8	720.9	728.9
145°	452.8	465.6	478.5	481.7	510.1	547.9	566.8	594.1	648.8	689.7	695.7
147.5°	470.4	483.0	495.5	498.6	521.3	551.7	566.8	588.3	631.2	663.5	668.4
150°	482.0	493.3	504.6	507.5	527.3	553.6	566.8	584.9	621.3	648.5	652.5
152.5°	494.0	502.6	511.1	513.2	531.1	554.9	566.8	582.3	613.3	636.5	639.6
155°	511.7	518.0	524.4	526.0	539.6	557.7	566.8	579.1	603.7	622.2	624.3
157.5°	524.7	530.9	537.1	538.7	548.0	560.5	566.8	576.3	595.5	609.9	611.3
160°	533.6	538.5	543.3	544.5	551.9	561.9	566.8	575.0	591.4	603.7	604.6
162.5°	542.5	546.1	549.7	550.6	556.1	563.3	566.8	573.7	587.6	598.0	598.8
165°	552.1	555.4	558.6	559.4	561.9	565.1	566.8	571.8	581.7	589.1	590.0
167.5°	561.0	562.5	564.1	564.5	566.5	569.2	570.6	573.9	580.5	585.3	585.7
170°	566.8	568.3	569.9	570.3	570.4	570.5	570.6	573.9	580.5	585.3	585.3
172.5°	569.9	570.3	570.5	570.6	570.6	570.6	570.6	573.3	578.4	582.2	581.9
175°	574.1	574.1	574.1	574.1	573.0	571.4	570.6	572.2	575.5	577.9	577.9
177.5°	574.1	574.1	574.1	574.1	573.2	571.9	571.4	572.7	575.2	577.2	576.8
180°	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	581.4	581.4
2.5°	620.6	616.9
5°	798.2	802.0
7.5°	1075.0	1073.1
10°	1336.7	1353.5
12.5°	1527.4	1531.1
15°	1643.3	1650.8
17.5°	1688.2	1690.0
20°	1690.0	1686.3
22.5°	1669.5	1665.7
25°	1645.2	1643.3
27.5°	1622.7	1624.6
30°	1613.4	1619.0
32.5°	1613.4	1622.7
35°	1617.1	1626.5
37.5°	1615.3	1626.5
40°	1607.8	1620.9
42.5°	1587.2	1596.6
45°	1555.4	1566.7
47.5°	1514.3	1521.8
50°	1462.0	1469.5
52.5°	1396.5	1398.4
55°	1318.0	1325.5
57.5°	1233.9	1235.8
60°	1140.4	1146.0
62.5°	1041.3	1041.3
65°	936.6	940.3
67.5°	828.1	837.5
70°	717.9	719.7
72.5°	609.4	609.4
75°	497.3	499.1
77.5°	390.7	390.7
80°	289.8	291.6
82.5°	200.0	203.8
85°	125.3	125.3
87.5°	58.0	52.3
90°	14.7	14.7
92.5°	58.6	47.0
95°	204.4	169.2
97.5°	489.8	422.7
100°	705.7	625.7
102.5°	918.1	849.6
105°	1188.9	1152.0
107.5°	1366.3	1375.1
110°	1433.8	1472.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1439.9	1498.8
115°	1401.7	1483.4
117.5°	1320.8	1411.4
120°	1255.5	1343.5
122.5°	1192.0	1278.9
125°	1101.4	1181.4
127.5°	1019.9	1087.3
130°	971.8	1034.2
132.5°	928.3	984.1
135°	868.5	916.7
137.5°	820.7	860.0
140°	787.7	824.5
142.5°	760.5	792.2
145°	719.7	743.7
147.5°	688.3	708.2
150°	668.6	684.7
152.5°	651.8	663.9
155°	632.3	640.4
157.5°	617.0	622.6
160°	607.8	611.1
162.5°	601.9	604.9
165°	593.2	596.4
167.5°	587.0	588.4
170°	585.3	585.3
172.5°	580.7	579.5
175°	577.9	577.9
177.5°	575.5	574.1
180°	574.1	574.1



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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	4.88	5.82	5.78	6.76	7.95	18.05	19.00	18.96	19.93	21.13
	3H	5.59	6.44	6.51	7.38	8.60	19.90	20.75	20.82	21.69	22.92
	4H	5.89	6.70	6.82	7.64	8.87	20.55	21.36	21.48	22.30	23.53
	6H	6.14	6.89	7.09	7.84	9.09	20.98	21.73	21.93	22.68	23.93
	8H	6.21	6.93	7.17	7.90	9.14	21.11	21.82	22.06	22.79	24.03
	12H	6.24	6.91	7.19	7.88	9.15	21.18	21.85	22.14	22.82	24.09
4H	2H	12.10	12.91	13.04	13.85	15.09	18.34	19.15	19.28	20.09	21.32
	3H	13.68	14.35	14.62	15.33	16.58	20.39	21.07	21.34	22.04	23.29
	4H	13.77	14.39	14.73	15.36	16.63	21.16	21.78	22.12	22.75	24.02
	6H	13.79	14.33	14.76	15.32	16.59	21.71	22.24	22.68	23.24	24.51
	8H	13.77	14.27	14.74	15.26	16.54	21.87	22.37	22.85	23.36	24.64
	12H	13.73	14.18	14.72	15.19	16.48	21.97	22.42	22.96	23.43	24.72
8H	4H	15.23	15.73	16.20	16.71	18.00	21.23	21.73	22.20	22.72	24.00
	6H	15.47	15.89	16.47	16.92	18.20	21.86	22.28	22.86	23.31	24.59
	8H	15.49	15.86	16.50	16.88	18.18	22.08	22.45	23.09	23.47	24.77
	12H	15.46	15.79	16.48	16.80	18.14	22.23	22.56	23.25	23.57	24.91
12H	4H	15.37	15.83	16.37	16.83	18.12	21.19	21.64	22.18	22.64	23.93
	6H	15.73	16.10	16.74	17.12	18.42	21.85	22.22	22.86	23.23	24.53
	8H	15.81	16.13	16.82	17.14	18.49	22.08	22.41	23.10	23.42	24.76