

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: P936889

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

**Test Information**

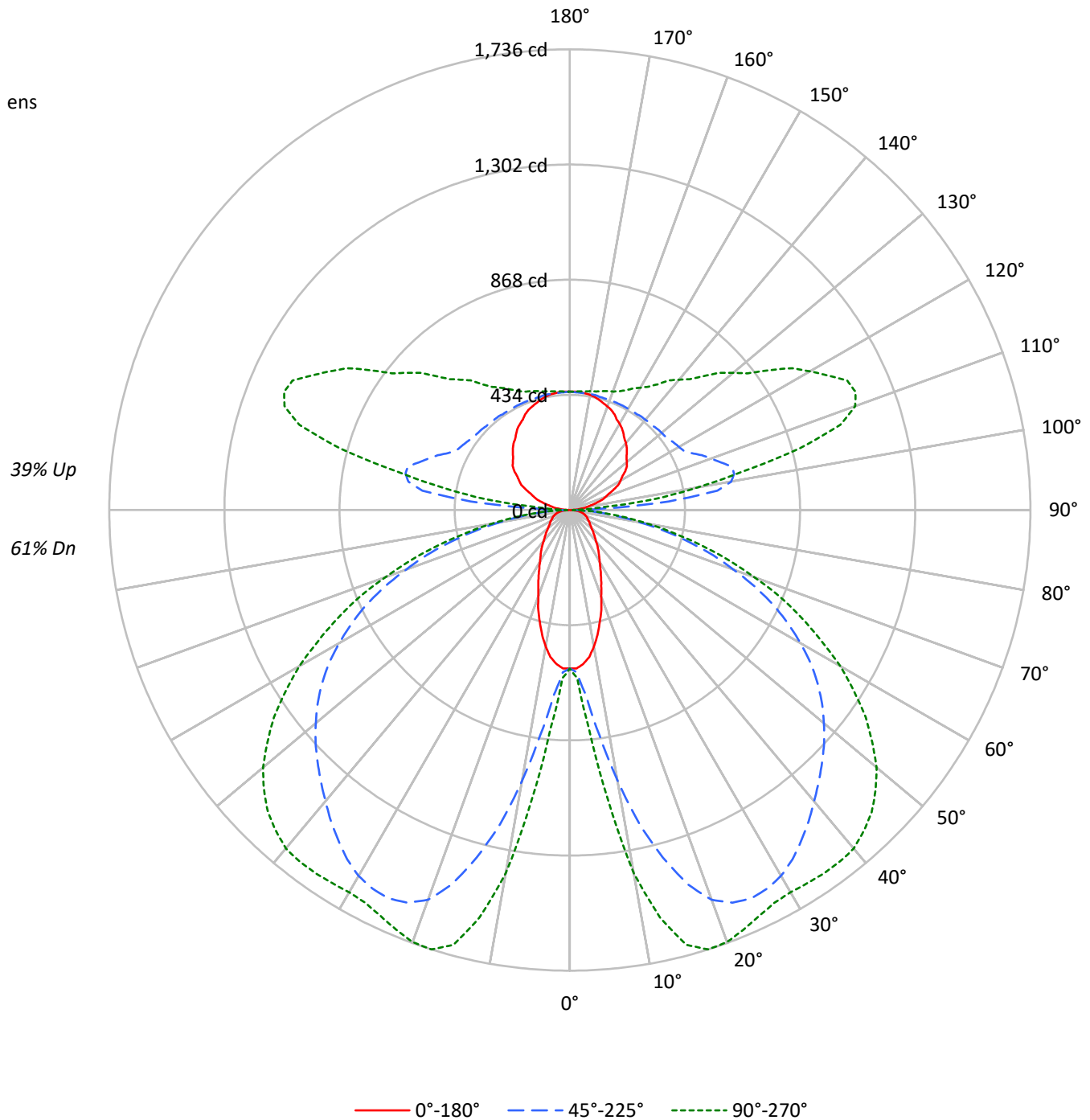
Test Method: LM-79-2019  
Report Number: P936889  
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-6-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7515.6 lumens  
Efficiency: N/A  
Efficacy: 110.8 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 (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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CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-6-3500K

### 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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

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

	0°	45°	90°
0°	3694	3694	3694
5°	3608	4269	4966
10°	3271	6222	8233
15°	2780	8126	9941
20°	2261	9415	10132
25°	1886	9849	9926
30°	1590	9909	9907
35°	1405	9742	10163
40°	1223	9526	10428
45°	1107	9366	10468
50°	1015	9222	10295
55°	971	9013	9839
60°	993	8613	9118
65°	1032	8007	8128
70°	1097	6979	6866
75°	1211	5684	5358
80°	1312	3937	3611
85°	1145	2085	1849

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10468 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.3	1.0
10°-20°	342.4	4.6
20°-30°	598.9	8.0
30°-40°	771.0	10.3
40°-50°	861.1	11.5
50°-60°	824.8	11.0
60°-70°	653.6	8.7
70°-80°	384.4	5.1
80°-90°	108.5	1.4
90°-100°	217.6	2.9
100°-110°	572.0	7.6
110°-120°	593.1	7.9
120°-130°	475.8	6.3
130°-140°	373.3	5.0
140°-150°	286.5	3.8
150°-160°	206.4	2.7
160°-170°	126.3	1.7
170°-180°	42.7	0.6
0°-30°	1018.6	13.6
0°-40°	1789.5	23.8
0°-60°	3475.4	46.2
0°-90°	4621.9	61.5
90°-120°	1382.8	18.4
90°-150°	2518.4	33.5
90°-180°	2894.0	38.5
0°-180°	7515.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	582	624	703	795	824	54
15°	436	805	1356	1644	1696	121
25°	278	912	1615	1686	1688	128
35°	188	872	1521	1607	1671	118
45°	129	695	1344	1540	1609	100
55°	92	442	1141	1325	1362	84
65°	73	234	847	952	966	72
75°	54	144	465	511	513	56
85°	19	44	115	127	129	20
90°	3	8	23	11	11	4
95°	29	113	375	193	132	32
105°	103	156	632	960	896	109
115°	183	222	507	1010	1153	181
125°	255	286	461	779	918	226
135°	304	334	446	628	713	235
145°	352	374	441	536	578	221
155°	398	409	441	484	498	183
165°	429	435	441	458	464	121
175°	446	446	444	449	449	42
180°	446	446	446	446	446	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2
2.5°	597.2	597.2	601.1	603.0	606.8	608.7	612.6	616.5	627.9	629.8	633.7
5°	581.9	589.5	614.5	624.1	651.0	687.5	702.8	727.8	779.7	795.1	804.7
7.5°	558.8	576.1	637.6	652.9	720.2	816.2	856.5	910.3	992.8	1033.1	1065.8
10°	522.3	558.8	668.3	704.8	814.3	960.2	1035.1	1110.0	1234.8	1290.5	1311.6
12.5°	482.0	541.6	701.0	750.9	908.3	1121.5	1211.7	1294.3	1436.4	1511.3	1522.9
15°	436.0	516.6	731.7	804.7	1008.1	1255.9	1355.8	1457.6	1590.0	1643.8	1657.3
17.5°	395.6	497.4	760.5	837.3	1085.0	1376.9	1478.7	1563.2	1670.7	1707.2	1716.8
20°	345.6	466.7	779.7	879.6	1165.7	1465.2	1563.2	1628.5	1701.5	1724.5	1728.3
22.5°	309.2	434.0	791.2	894.9	1219.4	1519.0	1601.6	1653.4	1703.4	1711.1	1713.0
25°	278.5	397.5	789.3	912.2	1265.5	1551.7	1615.0	1653.4	1682.3	1686.1	1686.1
27.5°	249.6	357.2	781.6	916.0	1300.1	1559.3	1609.2	1636.2	1649.6	1657.3	1657.3
30°	224.7	318.8	762.4	908.3	1315.4	1551.7	1592.0	1605.4	1618.9	1630.3	1636.2
32.5°	205.5	282.3	733.5	892.9	1317.4	1532.5	1561.3	1568.9	1588.1	1615.0	1624.6
35°	188.2	245.8	701.0	871.8	1305.8	1501.8	1520.9	1528.6	1567.0	1607.4	1620.7
37.5°	170.9	218.9	658.7	835.4	1288.6	1465.2	1478.7	1492.2	1551.7	1599.6	1615.0
40°	153.6	195.8	608.7	795.1	1261.6	1421.0	1432.6	1453.7	1532.5	1588.1	1603.5
42.5°	140.2	176.6	554.9	752.8	1227.1	1371.1	1388.4	1419.1	1509.4	1568.9	1586.3
45°	128.7	157.5	497.4	695.2	1183.0	1319.3	1344.3	1386.5	1482.5	1540.1	1555.5
47.5°	117.2	144.0	437.9	635.7	1134.9	1267.5	1300.1	1348.1	1446.0	1501.8	1515.1
50°	107.6	130.6	378.3	572.3	1083.1	1211.7	1250.2	1300.1	1399.9	1451.8	1469.1
52.5°	99.9	119.1	322.6	508.9	1023.6	1154.2	1198.3	1250.2	1344.3	1394.2	1405.7
55°	92.2	109.5	274.6	441.7	962.1	1092.6	1140.7	1190.6	1282.8	1325.0	1332.8
57.5°	88.4	101.7	234.3	378.3	896.8	1023.6	1077.3	1123.5	1209.8	1242.5	1250.2
60°	82.6	96.0	203.6	324.5	825.8	958.2	1004.4	1050.4	1123.5	1150.3	1156.0
62.5°	76.8	92.2	180.5	272.7	752.8	881.4	927.5	969.8	1031.2	1050.4	1058.1
65°	73.0	88.4	163.3	234.3	677.9	800.8	846.9	883.3	933.3	952.5	956.3
67.5°	69.1	84.5	149.8	201.6	603.0	720.2	754.7	789.3	827.7	846.9	848.8
70°	63.4	80.6	138.3	178.6	526.2	627.9	656.8	693.2	723.9	733.5	739.3
72.5°	59.5	74.9	130.6	161.3	447.5	539.6	566.5	587.6	614.5	624.1	624.1
75°	53.8	67.2	122.9	144.0	366.8	441.7	464.7	485.9	507.0	510.9	505.0
77.5°	48.0	59.5	105.6	121.0	286.1	349.5	368.7	380.2	397.5	401.4	403.3
80°	40.3	51.8	82.6	94.1	207.4	257.4	270.7	280.3	295.7	295.7	299.6
82.5°	30.7	40.3	59.5	67.2	140.2	176.6	188.2	194.0	203.6	203.6	203.6
85°	19.2	25.0	38.4	44.2	84.5	107.6	115.2	117.2	124.8	126.7	126.7
87.5°	9.6	13.5	25.0	26.8	44.2	55.7	55.7	59.5	59.5	57.7	55.7
90°	3.0	5.4	7.8	8.4	13.2	19.6	22.8	20.3	15.1	11.3	11.3
92.5°	12.0	32.4	52.7	57.8	81.3	112.6	128.2	112.3	80.6	56.9	54.7
95°	28.8	66.0	103.3	112.6	200.0	316.6	374.8	334.5	253.8	193.2	186.3
97.5°	49.7	82.7	115.5	123.7	269.5	463.8	560.9	535.4	484.3	446.0	432.9
100°	65.9	95.7	125.6	133.0	294.7	510.3	618.0	619.9	623.6	626.5	611.0
102.5°	79.7	107.6	135.4	142.3	306.3	524.9	634.2	666.7	731.7	780.4	767.2
105°	103.1	126.6	150.2	156.1	314.8	526.6	632.4	705.2	850.9	960.2	953.0
107.5°	127.0	149.0	170.9	176.5	316.5	503.1	596.4	698.0	901.2	1053.6	1055.3
110°	143.2	163.0	182.9	187.8	314.1	482.4	566.5	680.0	907.3	1077.6	1085.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	159.1	178.0	196.9	201.6	314.1	464.2	539.2	655.5	888.0	1062.3	1073.7
115°	183.0	200.5	217.9	222.3	317.1	443.4	506.6	618.6	842.5	1010.5	1026.4
117.5°	206.7	222.6	238.4	242.3	323.0	430.4	484.1	585.2	787.3	938.9	956.5
120°	220.4	235.4	250.3	254.1	327.7	426.0	475.1	567.4	752.1	890.6	907.8
122.5°	234.0	249.0	264.1	267.8	334.6	423.6	468.2	551.4	717.7	842.4	859.3
125°	254.7	268.3	282.1	285.5	343.9	421.8	460.8	531.4	672.7	778.6	794.1
127.5°	271.4	285.3	299.1	302.6	353.2	420.7	454.5	515.1	636.3	727.3	740.4
130°	280.4	295.4	310.3	314.0	360.0	421.3	452.0	506.0	614.1	695.1	707.2
132.5°	289.7	304.7	319.6	323.3	365.5	421.8	450.0	498.4	595.0	667.4	678.3
135°	303.5	317.1	330.6	334.0	371.5	421.4	446.4	486.9	567.8	628.5	637.9
137.5°	317.5	331.0	344.4	347.8	380.4	423.9	445.7	479.9	548.4	599.7	607.4
140°	329.3	341.7	354.0	357.1	386.0	424.4	443.7	473.3	532.4	576.7	583.8
142.5°	338.2	349.6	361.0	364.0	390.5	426.0	443.7	469.7	521.5	560.5	566.7
145°	352.0	362.0	372.0	374.5	396.6	426.0	440.7	461.9	504.4	536.2	540.9
147.5°	365.8	375.5	385.3	387.7	405.3	428.9	440.7	457.4	490.8	515.9	519.8
150°	374.8	383.6	392.3	394.6	410.0	430.4	440.7	454.8	483.0	504.2	507.3
152.5°	384.0	390.7	397.4	399.0	412.9	431.4	440.7	452.7	476.8	494.9	497.2
155°	397.9	402.8	407.7	408.9	419.5	433.6	440.7	450.3	469.5	483.8	485.4
157.5°	408.0	412.8	417.6	418.8	426.1	435.9	440.7	448.2	463.1	474.2	475.3
160°	414.9	418.6	422.3	423.3	429.1	436.8	440.7	447.1	459.9	469.5	470.1
162.5°	421.8	424.6	427.4	428.1	432.3	437.9	440.7	446.1	456.9	464.9	465.5
165°	429.3	431.8	434.3	435.0	436.9	439.4	440.7	444.6	452.2	458.0	458.7
167.5°	436.1	437.3	438.6	438.9	440.5	442.6	443.7	446.2	451.3	455.0	455.3
170°	440.7	441.9	443.1	443.4	443.5	443.6	443.7	446.2	451.3	455.0	455.0
172.5°	443.1	443.4	443.6	443.7	443.7	443.7	443.7	445.6	449.6	452.6	452.4
175°	446.4	446.4	446.4	446.4	445.5	444.3	443.7	445.0	447.5	449.3	449.3
177.5°	446.4	446.4	446.4	446.4	445.7	444.8	444.3	445.3	447.3	448.7	448.5
180°	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	597.2	597.2
2.5°	637.6	633.7
5°	820.0	823.8
7.5°	1104.2	1102.3
10°	1373.1	1390.3
12.5°	1568.9	1572.8
15°	1688.0	1695.7
17.5°	1734.1	1736.0
20°	1736.0	1732.2
22.5°	1714.8	1711.1
25°	1689.9	1688.0
27.5°	1666.9	1668.8
30°	1657.3	1663.0
32.5°	1657.3	1666.9
35°	1661.2	1670.7
37.5°	1659.2	1670.7
40°	1651.5	1664.9
42.5°	1630.3	1640.0
45°	1597.8	1609.2
47.5°	1555.5	1563.2
50°	1501.8	1509.4
52.5°	1434.5	1436.4
55°	1353.9	1361.5
57.5°	1267.5	1269.4
60°	1171.4	1177.1
62.5°	1069.7	1069.7
65°	962.1	965.9
67.5°	850.7	860.3
70°	737.4	739.3
72.5°	626.1	626.1
75°	510.9	512.7
77.5°	401.4	401.4
80°	297.7	299.6
82.5°	205.5	209.3
85°	128.7	128.7
87.5°	59.5	53.8
90°	11.3	11.3
92.5°	45.5	36.5
95°	158.9	131.5
97.5°	380.8	328.7
100°	548.7	486.5
102.5°	713.9	660.6
105°	924.4	895.7
107.5°	1062.2	1069.2
110°	1114.8	1144.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1119.6	1165.3
115°	1089.8	1153.4
117.5°	1026.9	1097.4
120°	976.2	1044.7
122.5°	926.8	994.3
125°	856.3	918.5
127.5°	792.9	845.5
130°	755.6	804.1
132.5°	721.7	765.1
135°	675.3	712.7
137.5°	638.1	668.7
140°	612.4	641.1
142.5°	591.3	615.9
145°	559.6	578.2
147.5°	535.2	550.6
150°	519.9	532.4
152.5°	506.7	516.2
155°	491.7	497.9
157.5°	479.8	484.1
160°	472.6	475.1
162.5°	467.9	470.4
165°	461.2	463.8
167.5°	456.4	457.5
170°	455.0	455.0
172.5°	451.5	450.6
175°	449.3	449.3
177.5°	447.5	446.4
180°	446.4	446.4



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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	6.52	7.55	7.37	8.42	9.51	19.69	20.71	20.53	21.59	22.68
	3H	7.24	8.17	8.10	9.05	10.17	21.54	22.46	22.39	23.34	24.46
	4H	7.55	8.42	8.42	9.31	10.44	22.19	23.06	23.06	23.95	25.08
	6H	7.81	8.61	8.69	9.51	10.65	22.62	23.43	23.50	24.32	25.47
	8H	7.88	8.65	8.77	9.56	10.71	22.74	23.51	23.64	24.43	25.57
	12H	7.90	8.64	8.80	9.54	10.71	22.82	23.55	23.71	24.46	25.63
4H	2H	13.75	14.62	14.63	15.51	16.64	19.98	20.86	20.86	21.75	22.88
	3H	15.33	16.07	16.22	16.99	18.13	22.04	22.77	22.93	23.69	24.84
	4H	15.44	16.11	16.34	17.02	18.19	22.81	23.48	23.71	24.39	25.57
	6H	15.46	16.04	16.37	16.98	18.15	23.36	23.94	24.27	24.87	26.05
	8H	15.44	15.98	16.36	16.91	18.10	23.52	24.06	24.44	25.00	26.18
	12H	15.40	15.89	16.34	16.84	18.04	23.62	24.11	24.56	25.06	26.25
8H	4H	16.89	17.43	17.81	18.37	19.55	22.89	23.43	23.80	24.36	25.55
	6H	17.14	17.59	18.09	18.57	19.75	23.52	23.97	24.46	24.94	26.13
	8H	17.16	17.56	18.12	18.53	19.73	23.74	24.14	24.69	25.10	26.31
	12H	17.14	17.49	18.10	18.45	19.70	23.89	24.24	24.85	25.20	26.45
12H	4H	17.04	17.53	17.98	18.48	19.68	22.85	23.34	23.78	24.29	25.48
	6H	17.40	17.80	18.36	18.77	19.97	23.50	23.90	24.46	24.87	26.07
	8H	17.48	17.83	18.44	18.79	20.04	23.74	24.09	24.70	25.05	26.30