

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: P936882

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-4-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936882
REPORT IS A COMBINATION OF REPORTS P933471 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-4-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

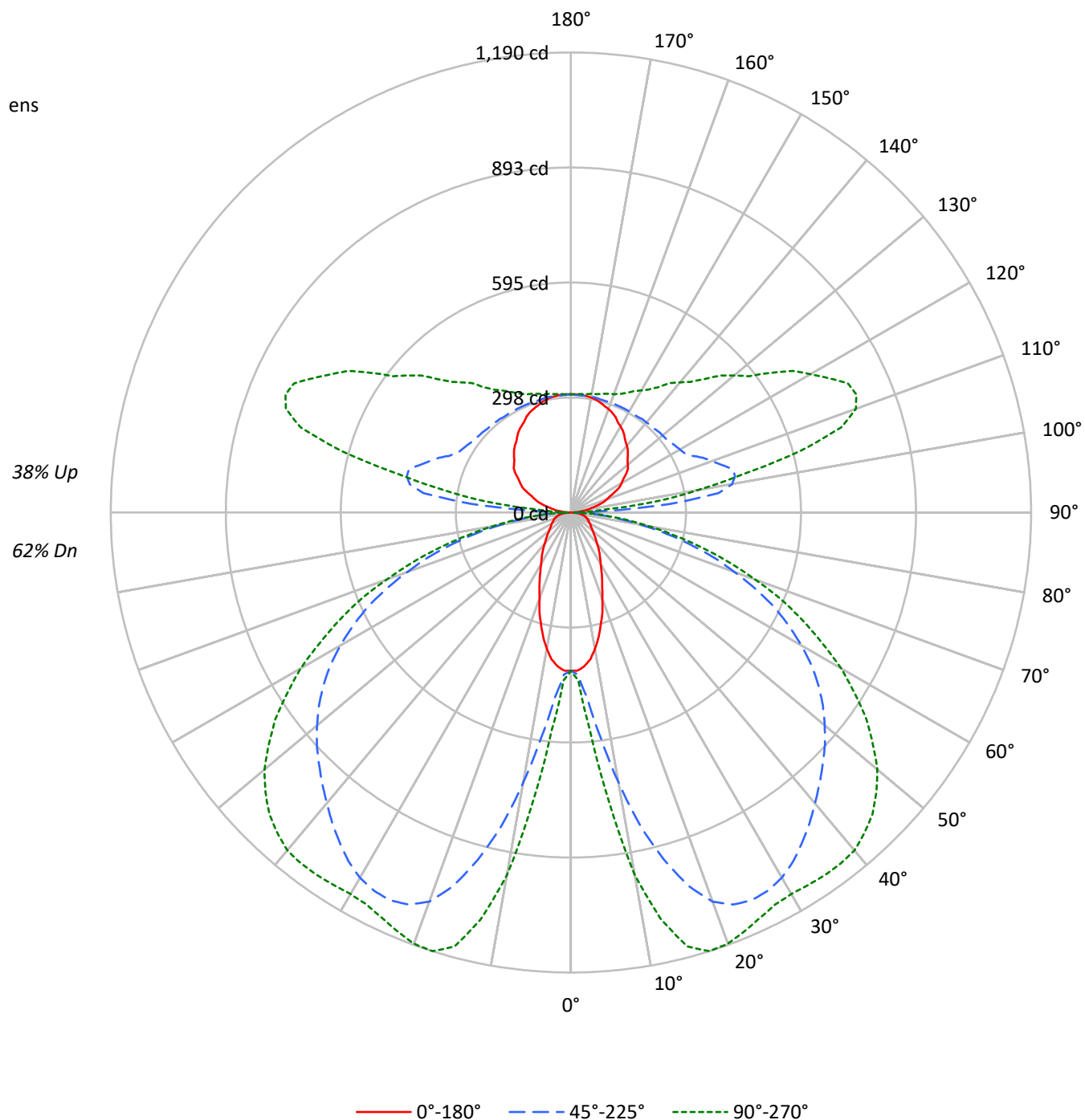
Lumens per Lamp: N/A
Luminaire Lumens: 5150.3 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
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

TEST NUMBER: P936882

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-4-2700K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3798	3798	3798
5°	3707	4387	5105
10°	3358	6390	8463
15°	2850	8342	10219
20°	2317	9659	10414
25°	1931	10100	10204
30°	1627	10156	10184
35°	1436	9980	10448
40°	1249	9753	10720
45°	1128	9583	10762
50°	1033	9430	10583
55°	986	9209	10115
60°	1007	8792	9374
65°	1042	8165	8355
70°	1102	7106	7059
75°	1210	5779	5509
80°	1292	3994	3712
85°	1085	2109	1898

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10762 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.0
10°-20°	234.6	4.6
20°-30°	410.4	8.0
30°-40°	528.3	10.3
40°-50°	590.2	11.5
50°-60°	565.2	11.0
60°-70°	448.0	8.7
70°-80°	263.4	5.1
80°-90°	74.3	1.4
90°-100°	149.1	2.9
100°-110°	392.0	7.6
110°-120°	406.4	7.9
120°-130°	326.0	6.3
130°-140°	255.8	5.0
140°-150°	196.3	3.8
150°-160°	141.4	2.7
160°-170°	86.5	1.7
170°-180°	29.2	0.6
0°-30°	698.0	13.6
0°-40°	1226.4	23.8
0°-60°	2381.8	46.2
0°-90°	3167.5	61.5
90°-120°	947.5	18.4
90°-150°	1725.7	33.5
90°-180°	1983.0	38.5
0°-180°	5150.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	409	409	409	409	409	
5°	399	428	482	545	565	37
15°	299	551	929	1127	1162	83
25°	191	625	1107	1156	1157	88
35°	129	598	1042	1102	1145	81
45°	88	476	921	1056	1103	68
55°	63	303	782	908	933	58
65°	50	161	580	653	662	50
75°	37	99	318	350	351	39
85°	13	30	79	87	88	14
90°	2	6	16	8	8	3
95°	20	77	257	132	90	22
105°	71	107	433	658	614	75
115°	125	152	347	692	790	124
125°	174	196	316	534	629	155
135°	208	229	306	431	488	161
145°	241	257	302	367	396	151
155°	273	280	302	332	341	125
165°	294	298	302	314	318	83
175°	306	306	304	308	308	29
180°	306	306	306	306	306	

TEST NUMBER: P936882

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3
2.5°	409.3	409.3	411.9	413.2	415.8	417.2	419.8	422.4	430.4	431.7	434.3
5°	398.8	404.1	421.1	427.7	446.1	471.1	481.7	498.8	534.4	544.8	551.4
7.5°	383.0	394.8	436.9	447.5	493.5	559.4	586.9	623.8	680.4	708.1	730.4
10°	358.0	383.0	458.0	483.0	558.0	658.1	709.4	760.6	846.2	884.3	898.9
12.5°	330.4	371.1	480.4	514.5	622.5	768.6	830.5	887.0	984.4	1035.7	1043.6
15°	298.7	354.0	501.4	551.4	690.9	860.7	929.2	998.9	1089.7	1126.6	1135.7
17.5°	271.1	340.8	521.1	573.8	743.6	943.6	1013.3	1071.3	1145.0	1170.0	1176.6
20°	236.8	319.8	534.4	602.8	798.9	1004.2	1071.3	1116.0	1166.0	1181.9	1184.4
22.5°	211.8	297.4	542.2	613.2	835.6	1041.0	1097.6	1133.1	1167.3	1172.6	1173.9
25°	190.8	272.4	540.9	625.1	867.3	1063.3	1106.8	1133.1	1152.9	1155.5	1155.5
27.5°	171.1	244.8	535.6	627.8	890.9	1068.6	1102.9	1121.3	1130.5	1135.7	1135.7
30°	154.0	218.4	522.5	622.5	901.5	1063.3	1091.0	1100.2	1109.4	1117.3	1121.3
32.5°	140.8	193.4	502.8	611.9	902.8	1050.2	1069.9	1075.2	1088.3	1106.8	1113.4
35°	129.0	168.4	480.4	597.5	894.9	1029.2	1042.3	1047.6	1073.9	1101.6	1110.7
37.5°	117.1	150.0	451.4	572.5	883.1	1004.2	1013.3	1022.6	1063.3	1096.3	1106.8
40°	105.3	134.3	417.2	544.8	864.6	973.9	981.8	996.3	1050.2	1088.3	1098.9
42.5°	96.1	121.1	380.4	515.9	840.9	939.6	951.5	972.6	1034.4	1075.2	1087.0
45°	88.1	107.9	340.8	476.4	810.6	904.2	921.2	950.2	1016.0	1055.5	1066.0
47.5°	80.3	98.7	300.1	435.7	777.8	868.6	890.9	923.9	991.0	1029.2	1038.3
50°	73.7	89.5	259.3	392.2	742.2	830.5	856.8	890.9	959.4	994.9	1006.8
52.5°	68.4	81.6	221.1	348.8	701.5	790.9	821.2	856.8	921.2	955.5	963.3
55°	63.1	75.0	188.2	302.7	659.4	748.8	781.8	815.9	879.2	908.1	913.3
57.5°	60.6	69.7	160.6	259.3	614.6	701.5	738.3	769.9	829.1	851.5	856.8
60°	56.6	65.8	139.5	222.4	565.9	656.7	688.3	719.9	769.9	788.3	792.2
62.5°	52.7	63.1	123.7	186.8	515.9	604.1	635.6	664.6	706.8	719.9	725.2
65°	50.0	60.6	111.9	160.6	464.5	548.8	580.4	605.4	639.6	652.8	655.4
67.5°	47.4	57.9	102.7	138.1	413.2	493.5	517.2	540.9	567.2	580.4	581.7
70°	43.4	55.3	94.7	122.4	360.6	430.4	450.1	475.1	496.1	502.8	506.7
72.5°	40.8	51.3	89.5	110.6	306.7	369.8	388.2	402.7	421.1	427.7	427.7
75°	36.9	46.0	84.3	98.7	251.4	302.7	318.5	333.0	347.4	350.1	346.1
77.5°	32.9	40.8	72.4	82.9	196.1	239.5	252.7	260.6	272.4	275.1	276.4
80°	27.6	35.6	56.6	64.4	142.1	176.4	185.6	192.1	202.7	202.7	205.3
82.5°	21.0	27.6	40.8	46.0	96.1	121.1	129.0	133.0	139.5	139.5	139.5
85°	13.1	17.1	26.3	30.3	57.9	73.7	79.0	80.3	85.6	86.9	86.9
87.5°	6.6	9.2	17.1	18.4	30.3	38.1	38.1	40.8	40.8	39.4	38.1
90°	2.1	3.7	5.4	5.8	9.1	13.4	15.6	13.8	10.4	7.8	7.8
92.5°	8.2	22.1	36.2	39.6	55.7	77.1	87.8	77.0	55.3	39.0	37.4
95°	19.7	45.2	70.8	77.2	137.0	216.8	256.8	229.1	173.8	132.4	127.7
97.5°	34.1	56.6	79.1	84.8	184.6	317.7	384.3	366.8	331.9	305.7	296.7
100°	45.1	65.5	86.1	91.1	201.9	349.6	423.5	424.8	427.4	429.3	418.6
102.5°	54.6	73.7	92.7	97.5	209.9	359.7	434.6	456.9	501.4	534.8	525.6
105°	70.6	86.8	102.9	107.0	215.7	360.9	433.4	483.3	583.1	658.0	653.1
107.5°	87.1	102.1	117.1	120.9	216.8	344.8	408.8	478.4	617.6	722.0	723.2
110°	98.1	111.7	125.3	128.7	215.2	330.6	388.2	466.0	621.7	738.4	743.5

TEST NUMBER: P936882

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-4-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	109.0	121.9	134.9	138.1	215.2	318.1	369.5	449.2	608.5	728.0	735.8
115°	125.4	137.3	149.3	152.3	217.2	303.8	347.1	423.8	577.3	692.4	703.3
117.5°	141.6	152.5	163.3	166.0	221.3	294.9	331.8	401.0	539.4	643.3	655.4
120°	151.1	161.4	171.5	174.1	224.6	291.9	325.6	388.8	515.4	610.3	622.1
122.5°	160.4	170.7	181.0	183.6	229.3	290.3	320.8	377.8	491.8	577.3	588.8
125°	174.5	183.9	193.2	195.6	235.7	289.0	315.7	364.1	460.9	533.6	544.2
127.5°	186.0	195.5	205.0	207.4	242.0	288.3	311.4	353.0	436.0	498.4	507.4
130°	192.1	202.4	212.5	215.1	246.7	288.7	309.8	346.8	420.8	476.3	484.6
132.5°	198.5	208.8	218.9	221.5	250.5	289.0	308.4	341.4	407.7	457.4	464.8
135°	208.0	217.2	226.6	228.9	254.6	288.7	305.9	333.6	389.0	430.7	437.0
137.5°	217.6	226.8	236.1	238.3	260.8	290.5	305.5	328.9	375.8	410.9	416.2
140°	225.6	234.1	242.6	244.7	264.4	290.8	304.0	324.3	364.8	395.2	400.1
142.5°	231.8	239.6	247.4	249.4	267.6	291.8	304.0	321.8	357.4	384.1	388.2
145°	241.2	248.0	254.9	256.6	271.7	291.9	302.0	316.5	345.6	367.4	370.6
147.5°	250.7	257.4	263.9	265.6	277.8	293.9	302.0	313.4	336.3	353.5	356.2
150°	256.8	262.7	268.8	270.3	280.9	294.9	302.0	311.6	331.0	345.5	347.7
152.5°	263.1	267.7	272.3	273.4	283.0	295.6	302.0	310.3	326.8	339.1	340.7
155°	272.6	276.0	279.4	280.2	287.4	297.1	302.0	308.6	321.7	331.6	332.7
157.5°	279.6	282.9	286.2	286.9	291.9	298.6	302.0	307.1	317.3	325.0	325.8
160°	284.4	286.8	289.4	290.0	294.0	299.3	302.0	306.4	315.1	321.7	322.1
162.5°	289.0	290.9	292.8	293.3	296.2	300.1	302.0	305.7	313.0	318.6	319.0
165°	294.2	295.9	297.7	298.1	299.4	301.1	302.0	304.6	309.9	313.8	314.2
167.5°	298.9	299.7	300.5	300.7	301.8	303.3	304.0	305.8	309.3	311.8	312.0
170°	302.0	302.8	303.6	303.8	303.9	304.0	304.0	305.8	309.3	311.8	311.8
172.5°	303.6	303.8	304.0	304.0	304.0	304.0	304.0	305.4	308.1	310.2	310.0
175°	305.9	305.9	305.9	305.9	305.3	304.4	304.0	304.9	306.7	308.0	308.0
177.5°	305.9	305.9	305.9	305.9	305.4	304.8	304.5	305.2	306.6	307.6	307.4
180°	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9

TEST NUMBER: P936882

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-4-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	409.3	409.3
2.5°	436.9	434.3
5°	561.9	564.6
7.5°	756.8	755.4
10°	941.0	952.8
12.5°	1075.2	1077.9
15°	1156.9	1162.0
17.5°	1188.4	1189.7
20°	1189.7	1187.0
22.5°	1175.3	1172.6
25°	1158.1	1156.9
27.5°	1142.3	1143.6
30°	1135.7	1139.7
32.5°	1135.7	1142.3
35°	1138.4	1145.0
37.5°	1137.0	1145.0
40°	1131.9	1141.0
42.5°	1117.3	1123.9
45°	1095.0	1102.9
47.5°	1066.0	1071.3
50°	1029.2	1034.4
52.5°	983.1	984.4
55°	927.8	933.1
57.5°	868.6	869.9
60°	802.8	806.8
62.5°	733.1	733.1
65°	659.4	661.9
67.5°	583.1	589.6
70°	505.4	506.7
72.5°	429.1	429.1
75°	350.1	351.4
77.5°	275.1	275.1
80°	204.0	205.3
82.5°	140.8	143.4
85°	88.1	88.1
87.5°	40.8	36.9
90°	7.8	7.8
92.5°	31.3	25.0
95°	108.9	90.1
97.5°	261.0	225.2
100°	376.0	333.4
102.5°	489.1	452.7
105°	633.5	613.8
107.5°	727.9	732.7
110°	763.9	784.4



TEST NUMBER: P936882

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	767.2	798.6
115°	746.8	790.3
117.5°	703.7	752.0
120°	668.9	715.8
122.5°	635.1	681.4
125°	586.7	629.4
127.5°	543.3	579.3
130°	517.8	551.0
132.5°	494.5	524.3
135°	462.7	488.3
137.5°	437.1	458.2
140°	419.7	439.3
142.5°	405.2	422.1
145°	383.5	396.2
147.5°	366.7	377.3
150°	356.3	364.8
152.5°	347.2	353.7
155°	336.9	341.2
157.5°	328.8	331.8
160°	323.9	325.6
162.5°	320.7	322.3
165°	316.0	317.8
167.5°	312.7	313.4
170°	311.8	311.8
172.5°	309.4	308.8
175°	308.0	308.0
177.5°	306.7	305.9
180°	305.9	305.9

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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	6.61	7.64	7.45	8.51	9.60	19.75	20.77	20.59	21.65	22.74
	3H	7.33	8.25	8.19	9.13	10.25	21.59	22.51	22.44	23.39	24.51
	4H	7.64	8.51	8.51	9.40	10.53	22.23	23.10	23.10	23.99	25.12
	6H	7.90	8.70	8.78	9.60	10.74	22.66	23.46	23.54	24.36	25.50
	8H	7.97	8.74	8.86	9.65	10.79	22.77	23.54	23.67	24.46	25.60
	12H	7.99	8.73	8.89	9.63	10.80	22.84	23.58	23.74	24.48	25.65
4H	2H	13.82	14.70	14.70	15.58	16.71	20.05	20.92	20.92	21.81	22.94
	3H	15.41	16.14	16.29	17.06	18.20	22.09	22.82	22.98	23.74	24.89
	4H	15.51	16.18	16.41	17.09	18.26	22.85	23.52	23.76	24.44	25.61
	6H	15.53	16.11	16.44	17.05	18.22	23.39	23.97	24.31	24.91	26.08
	8H	15.51	16.05	16.43	16.99	18.17	23.55	24.09	24.47	25.03	26.21
	12H	15.48	15.97	16.41	16.92	18.11	23.64	24.13	24.58	25.09	26.28
8H	4H	16.96	17.50	17.87	18.43	19.62	22.93	23.47	23.85	24.41	25.59
	6H	17.21	17.66	18.15	18.63	19.82	23.55	24.01	24.50	24.98	26.17
	8H	17.23	17.63	18.18	18.59	19.80	23.77	24.17	24.72	25.13	26.34
	12H	17.20	17.56	18.16	18.51	19.77	23.91	24.26	24.87	25.22	26.48
12H	4H	17.11	17.60	18.04	18.55	19.74	22.89	23.38	23.83	24.33	25.53
	6H	17.46	17.86	18.42	18.83	20.03	23.54	23.94	24.49	24.91	26.11
	8H	17.54	17.89	18.50	18.85	20.10	23.77	24.12	24.73	25.08	26.33