

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: P936610

Luminaire Tested: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936610
REPORT IS A COMBINATION OF REPORTS P933469 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

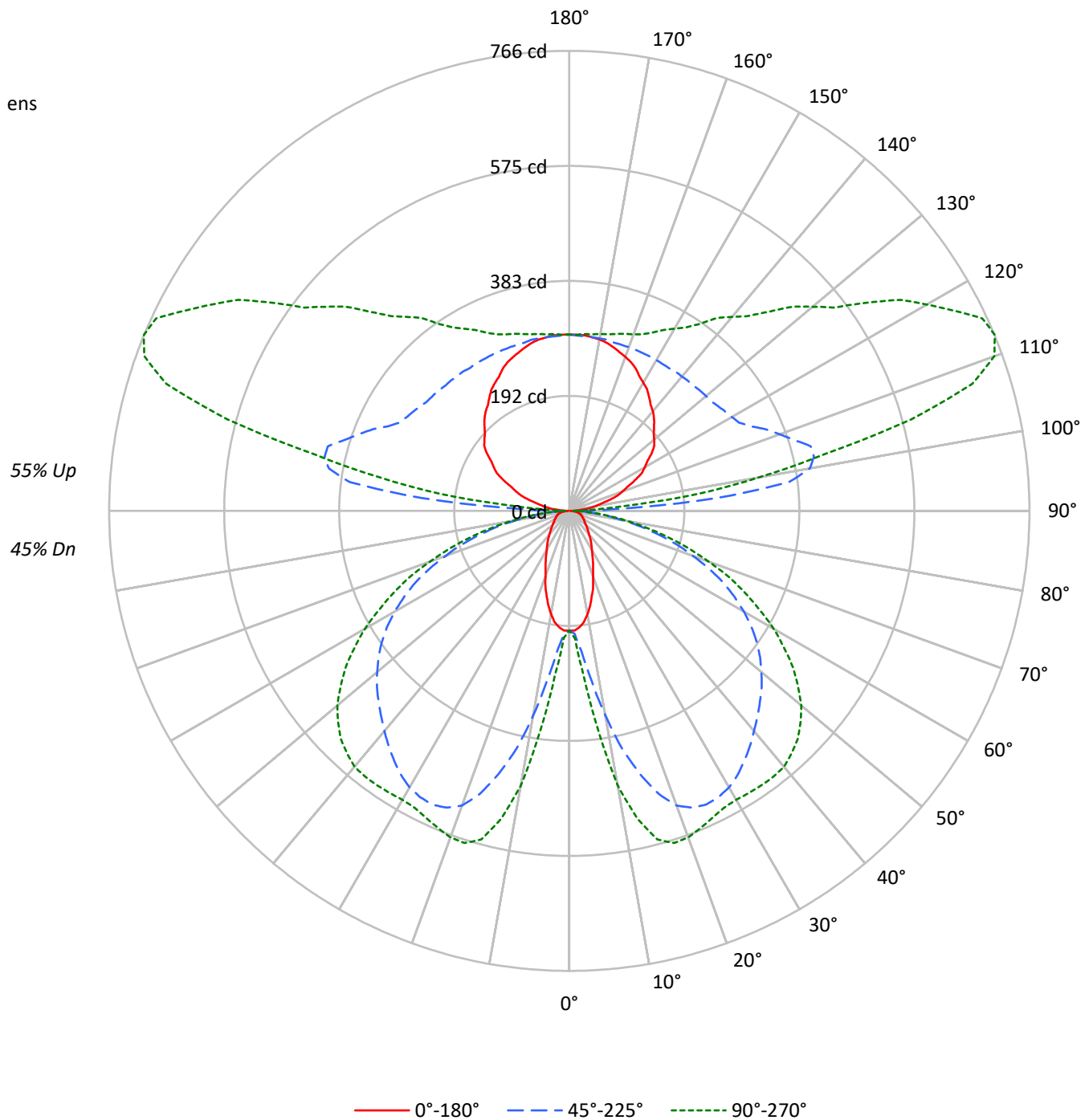
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3447.3 lumens
Efficiency: N/A
Efficacy: 121.4 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: General Diffuse

Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): 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: P936610
CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P936610

CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37	37	37	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1850	1850	1850
5°	1807	2137	2487
10°	1637	3114	4124
15°	1389	4065	4980
20°	1130	4708	5076
25°	941	4922	4973
30°	792	4949	4963
35°	699	4863	5091
40°	609	4753	5224
45°	549	4670	5245
50°	503	4595	5158
55°	481	4488	4929
60°	489	4285	4567
65°	508	3978	4072
70°	536	3462	3440
75°	590	2816	2684
80°	632	1945	1810
85°	530	1028	924

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5245 cd/sqm



TEST NUMBER: P936610

CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.8	0.7
10°-20°	114.4	3.3
20°-30°	200.0	5.8
30°-40°	257.5	7.5
40°-50°	287.6	8.3
50°-60°	275.4	8.0
60°-70°	218.3	6.3
70°-80°	128.4	3.7
80°-90°	36.8	1.1
90°-100°	143.1	4.2
100°-110°	376.3	10.9
110°-120°	390.1	11.3
120°-130°	312.9	9.1
130°-140°	245.5	7.1
140°-150°	188.5	5.5
150°-160°	135.7	3.9
160°-170°	83.0	2.4
170°-180°	28.1	0.8
0°-30°	340.2	9.9
0°-40°	597.6	17.3
0°-60°	1160.7	33.7
0°-90°	1544.1	44.8
90°-120°	909.5	26.4
90°-150°	1656.4	48.0
90°-180°	1903.0	55.2
0°-180°	3447.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	199	199	199	199	199	
5°	194	208	235	266	275	18
15°	146	269	453	549	566	41
25°	93	305	539	563	564	43
35°	63	291	508	537	558	39
45°	43	232	449	514	538	33
55°	31	148	381	442	455	28
65°	24	78	283	318	323	24
75°	18	48	155	171	171	19
85°	6	15	38	42	43	7
90°	2	6	15	8	8	2
95°	19	74	246	127	86	21
105°	68	103	416	632	589	72
115°	120	146	333	665	759	119
125°	168	188	303	512	604	149
135°	200	220	294	413	469	154
145°	232	246	290	353	380	145
155°	262	269	290	318	328	120
165°	282	286	290	301	305	80
175°	294	294	292	296	296	28
180°	294	294	294	294	294	



TEST NUMBER: P936610
 CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4
2.5°	199.4	199.4	200.8	201.3	202.7	203.3	204.6	205.8	209.7	210.3	211.7
5°	194.4	196.9	205.3	208.4	217.4	229.6	234.7	243.1	260.4	265.5	268.7
7.5°	186.6	192.4	212.9	218.1	240.5	272.6	286.0	304.0	331.5	345.0	355.9
10°	174.5	186.6	223.2	235.4	271.9	320.6	345.7	370.7	412.4	431.0	438.0
12.5°	161.0	180.9	234.1	250.8	303.3	374.6	404.7	432.3	479.7	504.8	508.6
15°	145.6	172.6	244.4	268.7	336.7	419.4	452.8	486.8	531.1	548.9	553.4
17.5°	132.1	166.2	254.0	279.6	362.3	459.8	493.9	522.1	557.9	570.2	573.3
20°	115.5	155.8	260.4	293.8	389.3	489.4	522.1	543.9	568.2	575.9	577.2
22.5°	103.2	144.9	264.2	298.8	407.3	507.3	534.9	552.2	568.8	571.4	572.1
25°	93.0	132.8	263.6	304.7	422.6	518.2	539.4	552.2	561.8	563.1	563.1
27.5°	83.4	119.3	261.0	305.9	434.2	520.7	537.5	546.4	550.9	553.4	553.4
30°	75.0	106.5	254.6	303.3	439.3	518.2	531.6	536.1	540.6	544.5	546.4
32.5°	68.6	94.3	245.0	298.2	440.0	511.7	521.4	524.0	530.4	539.4	542.5
35°	62.8	82.1	234.1	291.2	436.1	501.5	507.9	510.5	523.3	536.8	541.3
37.5°	57.1	73.1	220.0	279.0	430.3	489.4	493.9	498.4	518.2	534.2	539.4
40°	51.3	65.4	203.3	265.5	421.4	474.6	478.5	485.5	511.7	530.4	535.6
42.5°	46.8	59.0	185.4	251.4	409.8	457.9	463.7	474.0	504.1	524.0	529.7
45°	42.9	52.6	166.2	232.1	395.0	440.6	448.9	463.1	495.1	514.3	519.5
47.5°	39.1	48.1	146.3	212.3	379.1	423.3	434.2	450.2	483.0	501.5	506.0
50°	35.9	43.6	126.4	191.1	361.8	404.7	417.5	434.2	467.6	484.9	490.6
52.5°	33.4	39.8	107.7	170.0	341.9	385.5	400.2	417.5	448.9	465.6	469.5
55°	30.8	36.5	91.7	147.5	321.3	364.9	381.0	397.6	428.4	442.5	445.1
57.5°	29.5	34.0	78.2	126.4	299.5	341.9	359.7	375.1	404.0	414.9	417.5
60°	27.5	32.0	68.0	108.4	275.8	320.1	335.5	350.9	375.1	384.1	386.1
62.5°	25.6	30.8	60.3	91.1	251.4	294.4	309.7	323.9	344.4	350.9	353.3
65°	24.4	29.5	54.5	78.2	226.4	267.4	282.8	295.0	311.7	318.1	319.4
67.5°	23.1	28.2	50.0	67.3	201.3	240.5	252.0	263.6	276.4	282.8	283.5
70°	21.1	27.0	46.2	59.7	175.7	209.7	219.3	231.5	241.8	245.0	246.9
72.5°	19.9	25.0	43.6	53.9	149.4	180.2	189.2	196.3	205.3	208.4	208.4
75°	18.0	22.5	41.0	48.1	122.5	147.5	155.2	162.2	169.3	170.6	168.6
77.5°	16.1	19.9	35.3	40.4	95.6	116.7	123.1	127.0	132.8	134.0	134.7
80°	13.5	17.3	27.5	31.5	69.3	85.9	90.4	93.6	98.8	98.8	100.1
82.5°	10.2	13.5	19.9	22.5	46.8	59.0	62.8	64.8	68.0	68.0	68.0
85°	6.4	8.3	12.8	14.7	28.2	35.9	38.5	39.1	41.7	42.4	42.4
87.5°	3.3	4.5	8.3	9.0	14.7	18.6	18.6	19.9	19.9	19.2	18.6
90°	2.0	3.5	5.2	5.5	8.7	12.9	15.0	13.3	9.9	7.5	7.5
92.5°	7.8	21.2	34.7	38.0	53.4	74.0	84.3	73.9	53.1	37.5	35.9
95°	18.9	43.4	68.0	74.1	131.5	208.1	246.5	219.9	166.8	127.1	122.6
97.5°	32.7	54.3	75.9	81.4	177.1	305.0	368.8	352.1	318.5	293.4	284.8
100°	43.3	62.9	82.6	87.5	193.8	335.6	406.5	407.7	410.2	412.0	401.8
102.5°	52.4	70.7	89.0	93.6	201.4	345.2	417.1	438.5	481.3	513.3	504.5
105°	67.8	83.3	98.8	102.7	207.1	346.4	416.0	463.9	559.6	631.5	626.8
107.5°	83.6	98.0	112.4	116.1	208.1	331.0	392.3	459.2	592.8	693.0	694.2
110°	94.2	107.2	120.3	123.5	206.6	317.3	372.6	447.3	596.7	708.8	713.7



TEST NUMBER: P936610

CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	104.6	117.0	129.4	132.6	206.6	305.3	354.7	431.2	584.0	698.7	706.3
115°	120.4	131.8	143.3	146.2	208.5	291.6	333.2	406.8	554.1	664.6	675.0
117.5°	135.9	146.4	156.8	159.4	212.4	283.1	318.4	384.9	517.8	617.5	629.0
120°	145.0	154.9	164.6	167.1	215.6	280.2	312.5	373.2	494.7	585.8	597.1
122.5°	153.9	163.9	173.7	176.2	220.1	278.7	307.9	362.6	472.1	554.1	565.2
125°	167.5	176.5	185.5	187.8	226.2	277.4	303.1	349.5	442.4	512.1	522.4
127.5°	178.5	187.7	196.7	199.0	232.3	276.8	298.9	338.8	418.5	478.4	487.0
130°	184.4	194.3	204.0	206.5	236.8	277.1	297.3	332.9	403.9	457.2	465.1
132.5°	190.5	200.4	210.1	212.6	240.4	277.4	296.0	327.7	391.3	439.0	446.2
135°	199.6	208.5	217.5	219.7	244.4	277.1	293.6	320.2	373.4	413.4	419.5
137.5°	208.9	217.7	226.6	228.8	250.3	278.9	293.2	315.7	360.7	394.4	399.5
140°	216.5	224.7	232.9	234.9	253.8	279.2	291.8	311.3	350.2	379.3	384.0
142.5°	222.5	230.0	237.5	239.4	256.9	280.1	291.8	308.9	343.0	368.6	372.6
145°	231.5	238.0	244.6	246.3	260.8	280.2	289.9	303.8	331.7	352.7	355.7
147.5°	240.6	247.0	253.3	255.0	266.6	282.1	289.9	300.9	322.8	339.3	341.9
150°	246.5	252.2	258.0	259.5	269.6	283.1	289.9	299.1	317.7	331.6	333.7
152.5°	252.6	257.0	261.4	262.4	271.6	283.7	289.9	297.8	313.7	325.5	327.0
155°	261.7	264.9	268.2	268.9	275.9	285.2	289.9	296.2	308.8	318.3	319.3
157.5°	268.3	271.5	274.7	275.4	280.2	286.6	289.9	294.7	304.6	311.9	312.7
160°	272.9	275.3	277.8	278.4	282.2	287.3	289.9	294.1	302.5	308.8	309.2
162.5°	277.4	279.2	281.1	281.5	284.3	288.0	289.9	293.4	300.5	305.8	306.2
165°	282.4	284.0	285.7	286.1	287.4	289.0	289.9	292.3	297.4	301.2	301.6
167.5°	286.9	287.7	288.4	288.6	289.7	291.1	291.8	293.5	296.8	299.3	299.5
170°	289.9	290.6	291.4	291.6	291.7	291.8	291.8	293.5	296.8	299.3	299.3
172.5°	291.4	291.6	291.8	291.8	291.8	291.8	291.8	293.1	295.7	297.7	297.5
175°	293.6	293.6	293.6	293.6	293.0	292.2	291.8	292.6	294.4	295.6	295.6
177.5°	293.6	293.6	293.6	293.6	293.1	292.5	292.2	292.9	294.3	295.2	295.0
180°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6



TEST NUMBER: P936610

CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	199.4	199.4
2.5°	212.9	211.7
5°	273.9	275.1
7.5°	368.7	368.2
10°	458.6	464.3
12.5°	524.0	525.2
15°	563.8	566.3
17.5°	579.1	579.8
20°	579.8	578.5
22.5°	572.7	571.4
25°	564.4	563.8
27.5°	556.7	557.3
30°	553.4	555.4
32.5°	553.4	556.7
35°	554.8	557.9
37.5°	554.1	557.9
40°	551.5	556.0
42.5°	544.5	547.7
45°	533.5	537.5
47.5°	519.5	522.1
50°	501.5	504.1
52.5°	479.1	479.7
55°	452.2	454.7
57.5°	423.3	423.9
60°	391.2	393.1
62.5°	357.3	357.3
65°	321.3	322.6
67.5°	284.1	287.3
70°	246.3	246.9
72.5°	209.1	209.1
75°	170.6	171.2
77.5°	134.0	134.0
80°	99.4	100.1
82.5°	68.6	69.9
85°	42.9	42.9
87.5°	19.9	18.0
90°	7.5	7.5
92.5°	30.0	24.0
95°	104.5	86.5
97.5°	250.5	216.2
100°	360.9	320.0
102.5°	469.5	434.5
105°	608.0	589.2
107.5°	698.6	703.2
110°	733.3	752.8



TEST NUMBER: P936610

CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	736.4	766.5
115°	716.8	758.6
117.5°	675.4	721.8
120°	642.0	687.1
122.5°	609.6	654.0
125°	563.2	604.1
127.5°	521.5	556.0
130°	497.0	528.9
132.5°	474.7	503.2
135°	444.2	468.7
137.5°	419.6	439.8
140°	402.9	421.7
142.5°	388.9	405.2
145°	368.1	380.3
147.5°	352.0	362.1
150°	342.0	350.2
152.5°	333.3	339.5
155°	323.4	327.5
157.5°	315.6	318.4
160°	310.9	312.5
162.5°	307.8	309.4
165°	303.3	305.1
167.5°	300.2	300.9
170°	299.3	299.3
172.5°	296.9	296.4
175°	295.6	295.6
177.5°	294.4	293.6
180°	293.6	293.6



TEST NUMBER: P936610
 CATALOG NUMBER: SQ4-FB-050U-050D-830-1D-UNV-STD-W-4

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	2.63	3.48	3.62	4.49	5.83	15.77	16.62	16.77	17.63	18.97
	3H	3.34	4.10	4.34	5.12	6.48	17.60	18.36	18.60	19.38	20.74
	4H	3.64	4.36	4.65	5.38	6.75	18.23	18.96	19.25	19.98	21.35
	6H	3.89	4.56	4.92	5.58	6.96	18.65	19.32	19.68	20.34	21.72
	8H	3.96	4.59	4.99	5.64	7.01	18.76	19.40	19.80	20.44	21.82
	12H	3.97	4.58	5.01	5.62	7.02	18.82	19.43	19.86	20.47	21.87
4H	2H	9.82	10.55	10.85	11.57	12.94	16.05	16.77	17.07	17.79	19.16
	3H	11.39	12.00	12.42	13.05	14.43	18.08	18.68	19.11	19.73	21.12
	4H	11.49	12.04	12.53	13.08	14.49	18.83	19.39	19.87	20.43	21.84
	6H	11.50	11.98	12.55	13.04	14.44	19.36	19.84	20.41	20.90	22.30
	8H	11.47	11.92	12.52	12.98	14.40	19.51	19.96	20.57	21.02	22.44
	12H	11.43	11.84	12.50	12.91	14.33	19.60	20.00	20.67	21.08	22.50
8H	4H	12.92	13.37	13.97	14.43	15.84	18.89	19.34	19.94	20.40	21.82
	6H	13.16	13.53	14.24	14.63	16.05	19.51	19.88	20.58	20.98	22.39
	8H	13.18	13.51	14.26	14.59	16.02	19.72	20.05	20.80	21.13	22.56
	12H	13.15	13.44	14.24	14.51	15.99	19.86	20.14	20.94	21.22	22.70
12H	4H	13.06	13.47	14.13	14.54	15.96	18.85	19.25	19.92	20.32	21.75
	6H	13.42	13.74	14.50	14.83	16.26	19.49	19.82	20.57	20.90	22.34
	8H	13.49	13.77	14.57	14.85	16.33	19.72	20.00	20.80	21.08	22.55