

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: P937418

Luminaire Tested: SQ4-FB-100U-050D-840-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937418
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

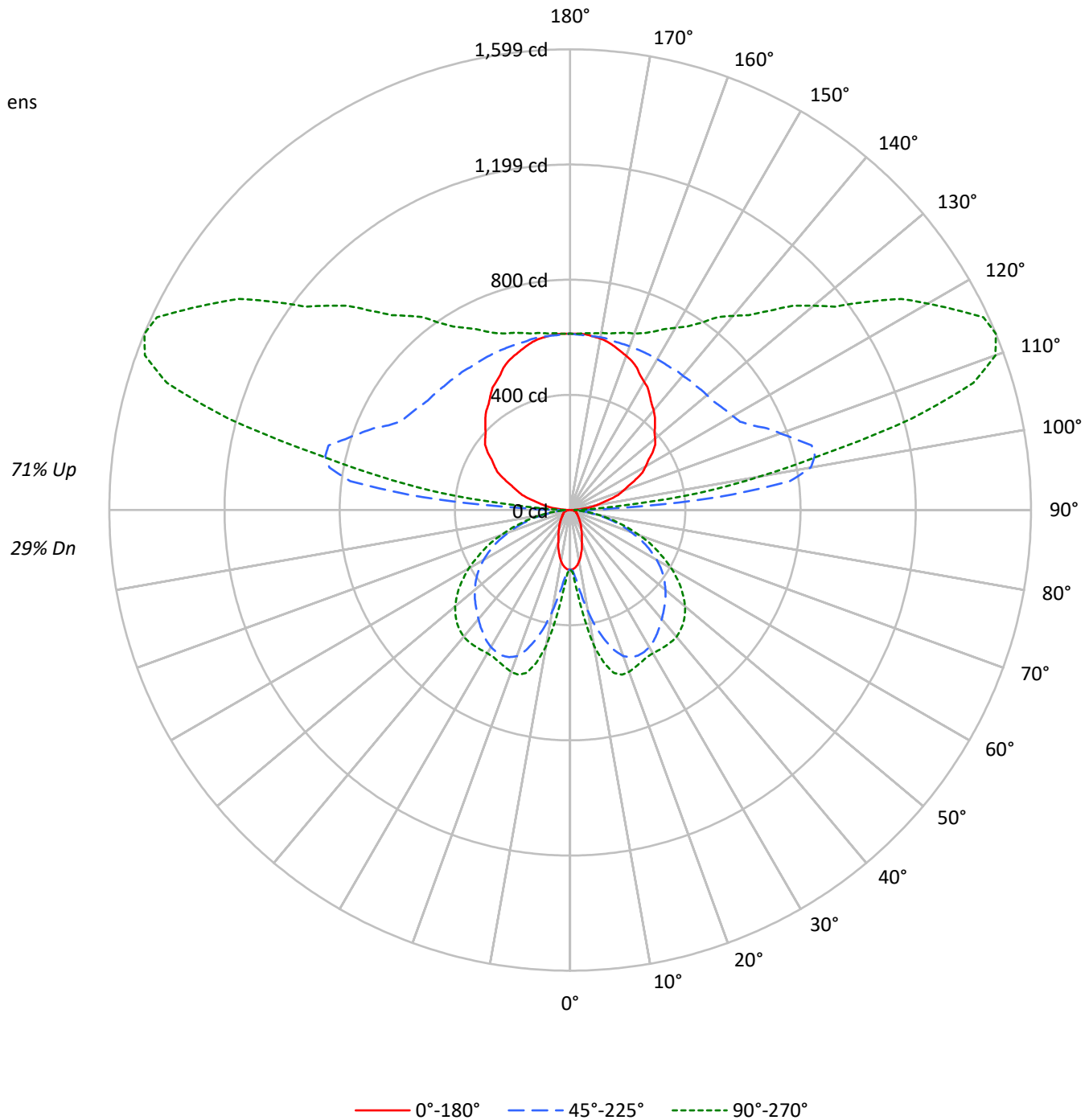
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5566.4 lumens
Efficiency: N/A
Efficacy: 135.1 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-Indirect

Input Watts (W): 41.2
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

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Luminous Intensity Polar Plot





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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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29				29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23				23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19				19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16				16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13				13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11				11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10				10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8				8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7				7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7				7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6				6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1912	1912	1912
5°	1867	2209	2571
10°	1691	3218	4263
15°	1436	4201	5147
20°	1168	4864	5245
25°	973	5087	5139
30°	820	5114	5129
35°	723	5026	5261
40°	630	4912	5398
45°	568	4827	5421
50°	520	4749	5331
55°	497	4637	5094
60°	507	4428	4721
65°	525	4112	4208
70°	553	3577	3555
75°	610	2910	2775
80°	651	2012	1869
85°	547	1062	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5421 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.7	0.5
10°-20°	118.2	2.1
20°-30°	206.7	3.7
30°-40°	266.1	4.8
40°-50°	297.2	5.3
50°-60°	284.7	5.1
60°-70°	225.6	4.1
70°-80°	132.7	2.4
80°-90°	39.2	0.7
90°-100°	298.5	5.4
100°-110°	784.7	14.1
110°-120°	813.7	14.6
120°-130°	652.6	11.7
130°-140°	512.1	9.2
140°-150°	393.1	7.1
150°-160°	283.1	5.1
160°-170°	173.2	3.1
170°-180°	58.5	1.1
0°-30°	351.6	6.3
0°-40°	617.6	11.1
0°-60°	1199.5	21.5
0°-90°	1597.0	28.7
90°-120°	1896.8	34.1
90°-150°	3454.6	62.1
90°-180°	3969.0	71.3
0°-180°	5566.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	206	206	206	206	206	
5°	201	215	243	274	284	19
15°	150	278	468	567	585	42
25°	96	315	557	582	583	44
35°	65	301	525	555	577	41
45°	44	240	464	532	556	34
55°	32	152	394	457	470	29
65°	25	81	292	329	333	25
75°	19	50	160	176	177	19
85°	7	15	40	44	44	7
90°	4	12	31	16	16	4
95°	39	154	514	265	180	44
105°	141	214	868	1317	1229	150
115°	251	305	695	1386	1582	248
125°	349	392	632	1068	1260	310
135°	416	458	612	862	978	322
145°	483	514	605	736	793	303
155°	546	561	605	664	683	251
165°	589	597	605	628	636	166
175°	612	612	609	616	616	58
180°	612	612	612	612	612	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	206.1	206.1	206.1	206.1	206.1	206.1	206.1	206.1	206.1	206.1	206.1
2.5°	206.1	206.1	207.5	208.1	209.5	210.1	211.4	212.7	216.8	217.4	218.7
5°	200.9	203.5	212.1	215.4	224.7	237.3	242.6	251.2	269.1	274.4	277.7
7.5°	192.9	198.9	220.0	225.4	248.6	281.7	295.6	314.2	342.6	356.6	367.8
10°	180.3	192.9	230.7	243.2	281.0	331.4	357.3	383.1	426.2	445.4	452.7
12.5°	166.4	186.9	242.0	259.2	313.5	387.1	418.2	446.8	495.8	521.7	525.6
15°	150.5	178.3	252.5	277.7	348.0	433.4	467.9	503.1	548.8	567.3	572.0
17.5°	136.5	171.7	262.5	289.0	374.5	475.2	510.4	539.5	576.6	589.2	592.5
20°	119.4	161.0	269.1	303.6	402.3	505.8	539.5	562.1	587.3	595.2	596.6
22.5°	106.7	149.8	273.1	308.8	420.9	524.2	552.8	570.7	587.9	590.5	591.2
25°	96.1	137.2	272.4	314.9	436.8	535.5	557.4	570.7	580.6	581.9	581.9
27.5°	86.2	123.3	269.7	316.2	448.7	538.2	555.5	564.7	569.4	572.0	572.0
30°	77.6	110.1	263.1	313.5	454.0	535.5	549.4	554.1	558.7	562.8	564.7
32.5°	70.9	97.4	253.2	308.2	454.7	528.9	538.9	541.5	548.1	557.4	560.7
35°	64.9	84.9	242.0	300.9	450.7	518.3	524.9	527.6	540.8	554.8	559.4
37.5°	59.0	75.6	227.3	288.3	444.7	505.8	510.4	515.0	535.5	552.1	557.4
40°	53.1	67.6	210.1	274.4	435.5	490.4	494.5	501.7	528.9	548.1	553.5
42.5°	48.4	61.0	191.6	259.8	423.6	473.3	479.2	489.9	521.0	541.5	547.5
45°	44.4	54.3	171.7	239.9	408.2	455.4	464.0	478.6	511.7	531.5	536.9
47.5°	40.4	49.7	151.2	219.4	391.7	437.5	448.7	465.2	499.1	518.3	522.9
50°	37.1	45.1	130.6	197.5	373.9	418.2	431.5	448.7	483.2	501.1	507.0
52.5°	34.5	41.1	111.3	175.7	353.3	398.4	413.6	431.5	464.0	481.2	485.2
55°	31.8	37.7	94.7	152.4	332.1	377.1	393.7	410.9	442.7	457.3	460.0
57.5°	30.5	35.2	80.8	130.6	309.5	353.3	371.8	387.7	417.5	428.8	431.5
60°	28.5	33.1	70.2	112.0	285.0	330.8	346.7	362.6	387.7	397.0	399.1
62.5°	26.5	31.8	62.3	94.2	259.8	304.2	320.1	334.7	355.9	362.6	365.2
65°	25.2	30.5	56.3	80.8	234.0	276.3	292.3	304.9	322.1	328.7	330.1
67.5°	23.9	29.1	51.7	69.6	208.1	248.6	260.4	272.4	285.6	292.3	292.9
70°	21.8	27.9	47.7	61.7	181.6	216.8	226.6	239.3	249.9	253.2	255.2
72.5°	20.6	25.9	45.1	55.7	154.4	186.2	195.5	202.8	212.1	215.4	215.4
75°	18.6	23.2	42.4	49.7	126.6	152.4	160.4	167.7	175.0	176.3	174.3
77.5°	16.6	20.6	36.5	41.8	98.8	120.6	127.3	131.2	137.2	138.5	139.2
80°	13.9	17.9	28.5	32.5	71.6	88.8	93.5	96.7	102.1	102.1	103.4
82.5°	10.6	13.9	20.6	23.2	48.4	61.0	64.9	67.0	70.2	70.2	70.2
85°	6.6	8.6	13.2	15.2	29.1	37.1	39.8	40.4	43.1	43.8	43.8
87.5°	3.4	4.6	8.6	9.3	15.2	19.3	19.3	20.6	20.6	19.9	19.3
90°	4.1	7.4	10.7	11.5	18.1	26.9	31.2	27.8	20.8	15.6	15.6
92.5°	16.4	44.4	72.3	79.3	111.5	154.4	175.9	154.1	110.7	78.1	75.0
95°	39.4	90.6	141.8	154.5	274.4	434.1	514.1	458.7	348.1	265.1	255.7
97.5°	68.2	113.3	158.5	169.7	369.6	636.1	769.3	734.3	664.3	611.9	594.0
100°	90.4	131.3	172.2	182.5	404.3	700.0	847.8	850.4	855.4	859.3	837.9
102.5°	109.3	147.5	185.6	195.2	420.2	720.1	870.0	914.6	1003.7	1070.5	1052.2
105°	141.4	173.7	206.0	214.1	432.0	722.3	867.6	967.4	1167.2	1317.1	1307.3
107.5°	174.3	204.4	234.6	242.1	434.1	690.1	818.2	957.6	1236.3	1445.3	1447.7
110°	196.4	223.7	250.9	257.7	430.8	661.7	777.1	932.9	1244.5	1478.1	1488.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	218.2	244.1	270.0	276.5	431.0	636.8	739.7	899.2	1218.0	1457.2	1472.9
115°	251.1	275.0	298.9	304.9	434.9	608.3	695.0	848.6	1155.8	1386.2	1407.9
117.5°	283.6	305.3	327.0	332.5	443.0	590.4	664.1	802.8	1080.0	1288.0	1312.1
120°	302.4	322.9	343.3	348.5	449.5	584.4	651.8	778.4	1031.8	1221.8	1245.3
122.5°	321.0	341.7	362.3	367.4	459.0	581.2	642.3	756.3	984.4	1155.6	1178.7
125°	349.4	368.1	386.9	391.6	471.8	578.6	632.0	728.9	922.7	1068.0	1089.4
127.5°	372.3	391.2	410.3	415.1	484.5	577.1	623.4	706.6	873.0	997.8	1015.8
130°	384.6	405.1	425.5	430.7	493.8	578.1	620.2	694.3	842.4	953.4	970.0
132.5°	397.4	417.8	438.3	443.4	501.3	578.6	617.2	683.5	816.1	915.6	930.5
135°	416.3	434.9	453.6	458.2	509.6	578.1	612.4	667.9	778.8	862.1	875.0
137.5°	435.6	454.1	472.5	477.1	521.9	581.6	611.5	658.4	752.3	822.7	833.2
140°	451.6	468.6	485.6	489.9	529.5	582.2	608.6	649.1	730.2	791.1	800.9
142.5°	464.0	479.7	495.4	499.3	535.8	584.3	608.6	644.2	715.4	768.9	777.4
145°	482.8	496.6	510.2	513.7	544.0	584.4	604.6	633.7	691.9	735.6	742.0
147.5°	501.8	515.1	528.4	531.7	556.0	588.4	604.6	627.5	673.3	707.7	713.0
150°	514.1	526.1	538.2	541.2	562.4	590.5	604.6	623.9	662.6	691.6	695.8
152.5°	526.8	535.9	545.1	547.4	566.4	591.8	604.6	621.1	654.1	678.9	682.1
155°	545.8	552.5	559.3	561.0	575.5	594.9	604.6	617.7	644.0	663.6	665.8
157.5°	559.7	566.3	572.8	574.5	584.5	597.8	604.6	614.7	635.2	650.5	652.0
160°	569.2	574.3	579.4	580.6	588.7	599.2	604.6	613.4	630.8	644.0	644.9
162.5°	578.6	582.4	586.3	587.3	593.0	600.7	604.6	612.0	626.7	637.8	638.5
165°	588.8	592.3	595.8	596.7	599.3	602.8	604.6	609.9	620.5	628.4	629.3
167.5°	598.3	600.0	601.7	602.1	604.3	607.1	608.6	612.1	619.0	624.2	624.6
170°	604.6	606.1	607.8	608.2	608.3	608.5	608.6	612.1	619.0	624.2	624.2
172.5°	607.8	608.2	608.5	608.6	608.6	608.6	608.6	611.4	616.8	621.0	620.7
175°	612.4	612.4	612.4	612.4	611.1	609.4	608.6	610.4	613.8	616.4	616.4
177.5°	612.4	612.4	612.4	612.4	611.4	610.1	609.4	610.8	613.5	615.6	615.2
180°	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	206.1	206.1
2.5°	220.0	218.7
5°	283.1	284.3
7.5°	381.1	380.5
10°	473.9	479.9
12.5°	541.5	542.8
15°	582.6	585.3
17.5°	598.5	599.2
20°	599.2	597.8
22.5°	591.9	590.5
25°	583.3	582.6
27.5°	575.3	576.0
30°	572.0	574.0
32.5°	572.0	575.3
35°	573.3	576.6
37.5°	572.6	576.6
40°	570.0	574.6
42.5°	562.8	566.0
45°	551.4	555.5
47.5°	536.9	539.5
50°	518.3	521.0
52.5°	495.1	495.8
55°	467.3	469.9
57.5°	437.5	438.1
60°	404.3	406.3
62.5°	369.2	369.2
65°	332.1	333.4
67.5°	293.6	296.9
70°	254.5	255.2
72.5°	216.1	216.1
75°	176.3	177.0
77.5°	138.5	138.5
80°	102.8	103.4
82.5°	70.9	72.2
85°	44.4	44.4
87.5°	20.6	18.6
90°	15.6	15.6
92.5°	62.5	50.1
95°	218.1	180.4
97.5°	522.4	450.8
100°	752.7	667.4
102.5°	979.2	906.2
105°	1268.0	1228.8
107.5°	1457.2	1466.7
110°	1529.3	1570.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1535.7	1598.6
115°	1495.0	1582.2
117.5°	1408.7	1505.3
120°	1339.1	1433.0
122.5°	1271.4	1363.9
125°	1174.6	1260.0
127.5°	1087.8	1159.7
130°	1036.5	1103.0
132.5°	990.0	1049.6
135°	926.2	977.6
137.5°	875.3	917.3
140°	840.2	879.4
142.5°	811.1	844.9
145°	767.6	793.2
147.5°	734.2	755.3
150°	713.0	730.2
152.5°	695.1	708.1
155°	674.4	683.0
157.5°	658.1	664.1
160°	648.3	651.8
162.5°	641.9	645.2
165°	632.7	636.2
167.5°	626.0	627.5
170°	624.2	624.2
172.5°	619.4	618.1
175°	616.4	616.4
177.5°	613.8	612.4
180°	612.4	612.4



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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	0.87	1.59	1.98	2.70	4.24	14.01	14.73	15.13	15.84	17.39
	3H	1.56	2.21	2.69	3.33	4.89	15.82	16.47	16.95	17.59	19.15
	4H	1.86	2.47	2.99	3.59	5.16	16.45	17.06	17.59	18.19	19.75
	6H	2.10	2.66	3.24	3.79	5.37	16.86	17.43	18.00	18.55	20.13
	8H	2.16	2.70	3.31	3.84	5.41	16.97	17.51	18.12	18.65	20.22
	12H	2.18	2.69	3.33	3.82	5.41	17.03	17.54	18.18	18.67	20.26
4H	2H	8.04	8.66	9.19	9.78	11.34	14.27	14.88	15.41	16.00	17.57
	3H	9.60	10.11	10.75	11.26	12.84	16.29	16.80	17.43	17.94	19.52
	4H	9.69	10.16	10.84	11.30	12.89	17.04	17.51	18.19	18.64	20.24
	6H	9.69	10.10	10.85	11.26	12.84	17.55	17.96	18.71	19.12	20.70
	8H	9.67	10.04	10.82	11.19	12.80	17.70	18.08	18.86	19.23	20.84
	12H	9.61	9.96	10.79	11.12	12.73	17.78	18.12	18.96	19.29	20.90
8H	4H	11.11	11.49	12.27	12.64	14.24	17.08	17.46	18.24	18.61	20.22
	6H	11.35	11.66	12.52	12.85	14.45	17.69	18.01	18.87	19.20	20.80
	8H	11.36	11.64	12.54	12.81	14.43	17.90	18.18	19.09	19.35	20.97
	12H	11.32	11.56	12.51	12.73	14.39	18.03	18.27	19.22	19.44	21.10
12H	4H	11.24	11.59	12.42	12.75	14.36	17.03	17.37	18.20	18.53	20.14
	6H	11.60	11.87	12.78	13.04	14.67	17.68	17.95	18.86	19.12	20.74
	8H	11.66	11.90	12.85	13.07	14.73	17.89	18.13	19.08	19.30	20.95