

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: P936698

Luminaire Tested: SQ4-FB-050U-050D-B35-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

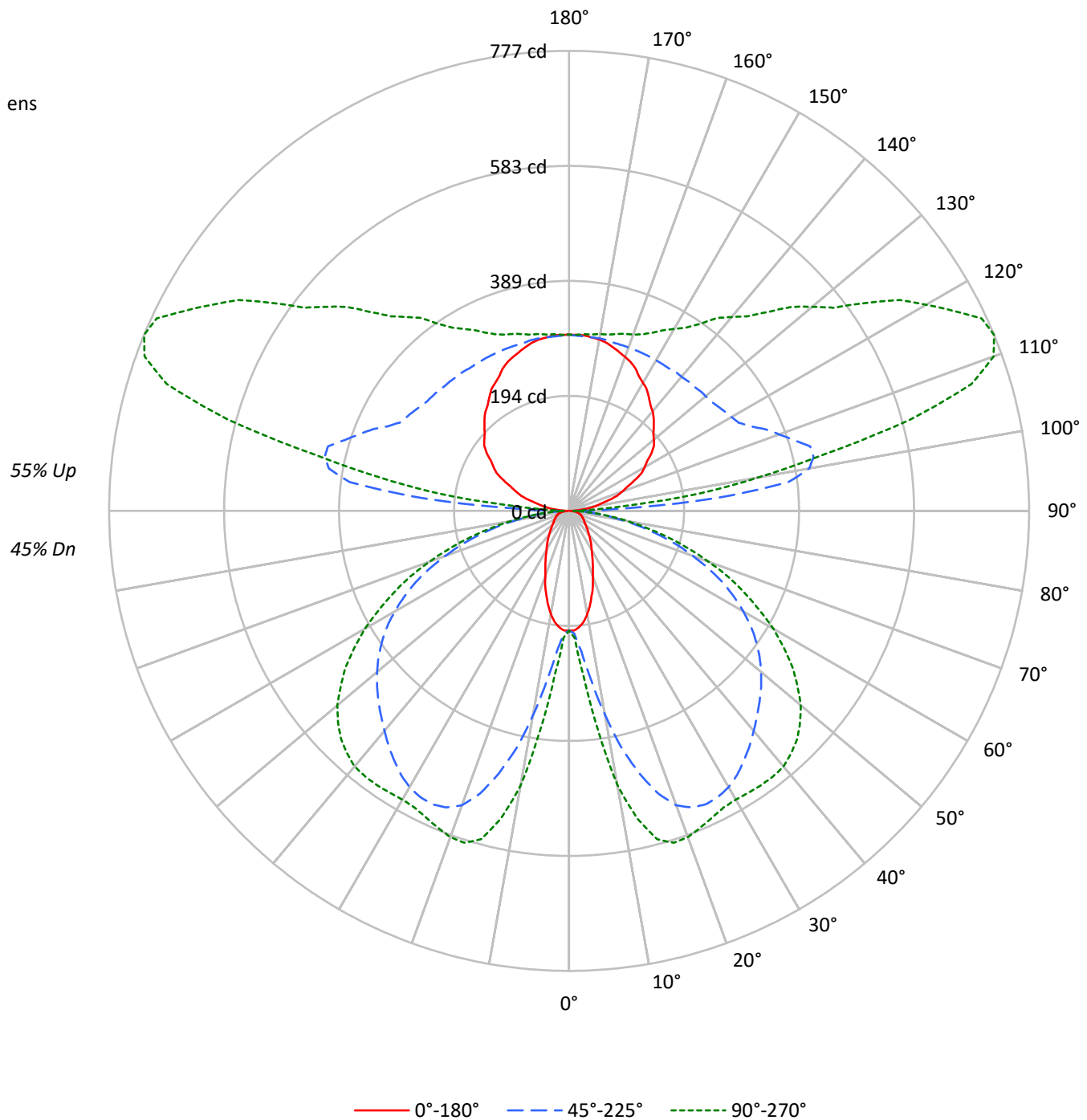
Test Method: LM-79-2019  
Report Number: P936698  
REPORT IS A COMBINATION OF REPORTS P933469 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-B35-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3494.2 lumens  
Efficiency: N/A  
Efficacy: 123.0 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<sub>in</sub>): 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	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°	1875	1875	1875
5°	1831	2166	2522
10°	1659	3156	4180
15°	1408	4120	5048
20°	1146	4772	5144
25°	954	4989	5040
30°	804	5017	5031
35°	709	4929	5160
40°	617	4818	5295
45°	557	4733	5316
50°	510	4658	5228
55°	487	4548	4996
60°	496	4343	4630
65°	515	4032	4126
70°	543	3510	3487
75°	597	2854	2720
80°	641	1973	1835
85°	538	1044	937

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5316 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.2	0.7
10°-20°	115.9	3.3
20°-30°	202.7	5.8
30°-40°	261.0	7.5
40°-50°	291.5	8.3
50°-60°	279.2	8.0
60°-70°	221.2	6.3
70°-80°	130.1	3.7
80°-90°	37.3	1.1
90°-100°	145.0	4.2
100°-110°	381.4	10.9
110°-120°	395.4	11.3
120°-130°	317.2	9.1
130°-140°	248.9	7.1
140°-150°	191.0	5.5
150°-160°	137.6	3.9
160°-170°	84.2	2.4
170°-180°	28.4	0.8
0°-30°	344.8	9.9
0°-40°	605.8	17.3
0°-60°	1176.5	33.7
0°-90°	1565.1	44.8
90°-120°	921.8	26.4
90°-150°	1678.9	48.0
90°-180°	1929.0	55.2
0°-180°	3494.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	202	202	202	202	202	
5°	197	211	238	269	279	18
15°	148	272	459	556	574	41
25°	94	309	547	571	571	43
35°	64	295	515	544	566	40
45°	44	235	455	521	545	34
55°	31	150	386	449	461	28
65°	25	79	287	322	327	24
75°	18	49	157	173	174	19
85°	6	15	39	43	44	7
90°	2	6	15	8	8	2
95°	19	75	250	129	88	21
105°	69	104	422	640	597	73
115°	122	148	338	674	769	120
125°	170	190	307	519	612	151
135°	202	223	298	419	475	157
145°	235	250	294	358	386	147
155°	265	273	294	323	332	122
165°	286	290	294	305	309	81
175°	298	298	296	300	300	28
180°	298	298	298	298	298	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1
2.5°	202.1	202.1	203.5	204.1	205.4	206.1	207.4	208.6	212.6	213.2	214.5
5°	197.0	199.6	208.0	211.2	220.4	232.8	237.9	246.4	264.0	269.1	272.4
7.5°	189.1	195.1	215.8	221.0	243.8	276.3	289.9	308.1	336.0	349.7	360.8
10°	176.8	189.1	226.3	238.6	275.6	325.0	350.4	375.8	418.0	436.8	444.0
12.5°	163.2	183.3	237.3	254.2	307.5	379.7	410.2	438.2	486.2	511.6	515.5
15°	147.6	174.9	247.7	272.4	341.3	425.1	458.9	493.4	538.3	556.4	561.0
17.5°	133.9	168.4	257.5	283.4	367.3	466.1	500.6	529.2	565.5	577.9	581.1
20°	117.1	157.9	264.0	297.8	394.6	496.0	529.2	551.3	576.0	583.7	585.1
22.5°	104.7	146.9	267.8	302.9	412.8	514.2	542.2	559.7	576.6	579.2	579.8
25°	94.3	134.6	267.2	308.8	428.4	525.2	546.7	559.7	569.5	570.7	570.7
27.5°	84.5	120.9	264.5	310.1	440.1	527.8	544.8	553.9	558.4	561.0	561.0
30°	76.1	107.9	258.0	307.5	445.3	525.2	538.9	543.4	548.0	551.9	553.9
32.5°	69.6	95.5	248.4	302.2	445.9	518.7	528.5	531.1	537.6	546.7	549.9
35°	63.7	83.2	237.3	295.2	442.1	508.3	514.8	517.4	530.4	544.1	548.6
37.5°	57.8	74.1	223.0	282.8	436.1	496.0	500.6	505.1	525.2	541.5	546.7
40°	52.0	66.3	206.1	269.1	427.1	481.0	485.0	492.1	518.7	537.6	542.8
42.5°	47.5	59.8	187.9	254.8	415.4	464.2	470.0	480.4	511.0	531.1	536.9
45°	43.5	53.3	168.4	235.3	400.4	446.6	455.0	469.4	501.8	521.3	526.6
47.5°	39.6	48.7	148.3	215.2	384.2	429.1	440.1	456.3	489.5	508.3	512.9
50°	36.4	44.2	128.1	193.7	366.7	410.2	423.2	440.1	473.9	491.5	497.3
52.5°	33.8	40.3	109.2	172.3	346.5	390.7	405.6	423.2	455.0	471.9	475.9
55°	31.2	37.0	92.9	149.5	325.7	369.9	386.1	403.0	434.2	448.6	451.2
57.5°	29.9	34.5	79.3	128.1	303.6	346.5	364.6	380.2	409.5	420.5	423.2
60°	27.9	32.5	68.9	109.9	279.6	324.4	340.0	355.6	380.2	389.3	391.4
62.5°	26.0	31.2	61.1	92.3	254.8	298.4	314.0	328.3	349.0	355.6	358.1
65°	24.7	29.9	55.2	79.3	229.5	271.0	286.6	299.0	315.9	322.4	323.7
67.5°	23.4	28.6	50.7	68.2	204.1	243.8	255.4	267.2	280.1	286.6	287.3
70°	21.4	27.3	46.8	60.5	178.1	212.6	222.3	234.7	245.1	248.4	250.3
72.5°	20.2	25.4	44.2	54.7	151.5	182.7	191.8	198.9	208.0	211.2	211.2
75°	18.2	22.8	41.6	48.7	124.1	149.5	157.3	164.4	171.6	172.9	170.9
77.5°	16.3	20.2	35.8	41.0	96.9	118.3	124.8	128.7	134.6	135.9	136.5
80°	13.7	17.5	27.9	31.9	70.3	87.1	91.7	94.9	100.1	100.1	101.5
82.5°	10.4	13.7	20.2	22.8	47.5	59.8	63.7	65.7	68.9	68.9	68.9
85°	6.5	8.4	13.0	14.9	28.6	36.4	39.1	39.6	42.2	42.9	42.9
87.5°	3.3	4.6	8.4	9.1	14.9	18.9	18.9	20.2	20.2	19.5	18.9
90°	2.0	3.6	5.2	5.6	8.8	13.1	15.2	13.5	10.1	7.6	7.6
92.5°	7.9	21.5	35.2	38.6	54.2	75.0	85.5	74.9	53.8	38.0	36.4
95°	19.2	44.0	68.9	75.1	133.3	211.0	249.8	222.9	169.1	128.8	124.2
97.5°	33.1	55.0	76.9	82.5	179.6	309.1	373.8	356.9	322.9	297.4	288.7
100°	43.9	63.8	83.7	88.7	196.4	340.1	412.0	413.3	415.8	417.6	407.3
102.5°	53.1	71.7	90.2	94.9	204.2	349.9	422.8	444.5	487.8	520.3	511.3
105°	68.7	84.4	100.1	104.1	209.9	351.1	421.6	470.2	567.3	640.1	635.4
107.5°	84.7	99.3	114.0	117.6	211.0	335.5	397.7	465.4	600.9	702.4	703.6
110°	95.4	108.6	121.9	125.2	209.4	321.6	377.7	453.4	604.8	718.4	723.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	106.0	118.6	131.2	134.4	209.4	309.5	359.5	437.0	592.0	708.2	715.9
115°	122.0	133.6	145.3	148.2	211.3	295.5	337.7	412.3	561.6	673.6	684.2
117.5°	137.8	148.4	158.9	161.5	215.3	286.9	322.8	390.1	524.8	625.9	637.6
120°	147.0	157.0	166.9	169.4	218.5	284.0	316.8	378.3	501.5	593.8	605.2
122.5°	156.0	166.1	176.1	178.6	223.1	282.5	312.1	367.5	478.5	561.6	572.9
125°	169.8	178.9	188.0	190.3	229.3	281.2	307.2	354.3	448.5	519.1	529.5
127.5°	180.9	190.2	199.4	201.7	235.5	280.5	303.0	343.4	424.2	484.9	493.6
130°	186.9	196.9	206.8	209.3	240.0	280.9	301.4	337.4	409.4	463.4	471.4
132.5°	193.1	203.1	213.0	215.5	243.7	281.2	300.0	332.2	396.6	445.0	452.2
135°	202.3	211.3	220.4	222.7	247.7	280.9	297.6	324.5	378.5	419.0	425.2
137.5°	211.7	220.6	229.7	231.9	253.7	282.7	297.2	320.0	365.6	399.8	404.9
140°	219.5	227.7	236.0	238.1	257.3	282.9	295.7	315.5	354.9	384.5	389.2
142.5°	225.5	233.1	240.7	242.6	260.4	283.9	295.7	313.1	347.7	373.6	377.7
145°	234.7	241.3	248.0	249.6	264.3	284.0	293.8	307.9	336.2	357.5	360.6
147.5°	243.9	250.4	256.8	258.4	270.3	286.0	293.8	304.9	327.2	343.9	346.5
150°	249.8	255.6	261.5	263.0	273.3	286.9	293.8	303.2	322.0	336.1	338.3
152.5°	256.0	260.5	264.9	266.0	275.3	287.6	293.8	301.8	317.9	329.9	331.5
155°	265.2	268.5	271.8	272.6	279.7	289.1	293.8	300.2	313.0	322.6	323.6
157.5°	272.0	275.2	278.4	279.2	284.0	290.5	293.8	298.7	308.7	316.2	317.0
160°	276.6	279.1	281.6	282.2	286.0	291.2	293.8	298.1	306.6	313.0	313.4
162.5°	281.2	283.0	284.9	285.4	288.2	292.0	293.8	297.4	304.6	310.0	310.4
165°	286.2	287.9	289.6	290.0	291.3	292.9	293.8	296.3	301.5	305.3	305.7
167.5°	290.8	291.6	292.3	292.5	293.6	295.1	295.7	297.5	300.9	303.4	303.6
170°	293.8	294.6	295.4	295.5	295.6	295.7	295.7	297.5	300.9	303.4	303.4
172.5°	295.4	295.5	295.7	295.7	295.7	295.7	295.7	297.1	299.7	301.7	301.6
175°	297.6	297.6	297.6	297.6	297.0	296.1	295.7	296.6	298.4	299.6	299.6
177.5°	297.6	297.6	297.6	297.6	297.1	296.5	296.2	296.9	298.3	299.2	299.0
180°	297.6	297.6	297.6	297.6	297.6	297.6	297.6	297.6	297.6	297.6	297.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	202.1	202.1
2.5°	215.8	214.5
5°	277.6	278.9
7.5°	373.7	373.2
10°	464.8	470.6
12.5°	531.1	532.4
15°	571.4	574.0
17.5°	587.0	587.7
20°	587.7	586.3
22.5°	580.5	579.2
25°	572.1	571.4
27.5°	564.2	564.9
30°	561.0	563.0
32.5°	561.0	564.2
35°	562.3	565.5
37.5°	561.6	565.5
40°	559.0	563.6
42.5°	551.9	555.1
45°	540.8	544.8
47.5°	526.6	529.2
50°	508.3	511.0
52.5°	485.6	486.2
55°	458.3	460.9
57.5°	429.1	429.7
60°	396.5	398.5
62.5°	362.1	362.1
65°	325.7	326.9
67.5°	288.0	291.2
70°	249.6	250.3
72.5°	211.9	211.9
75°	172.9	173.5
77.5°	135.9	135.9
80°	100.8	101.5
82.5°	69.6	70.8
85°	43.5	43.5
87.5°	20.2	18.2
90°	7.6	7.6
92.5°	30.4	24.3
95°	105.9	87.7
97.5°	253.9	219.1
100°	365.8	324.3
102.5°	475.9	440.4
105°	616.3	597.2
107.5°	708.1	712.8
110°	743.2	763.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	746.4	776.9
115°	726.6	768.9
117.5°	684.6	731.6
120°	650.8	696.4
122.5°	617.9	662.9
125°	570.8	612.3
127.5°	528.6	563.6
130°	503.8	536.1
132.5°	481.1	510.1
135°	450.2	475.1
137.5°	425.3	445.7
140°	408.3	427.4
142.5°	394.2	410.7
145°	373.1	385.5
147.5°	356.8	367.1
150°	346.6	354.9
152.5°	337.8	344.1
155°	327.8	332.0
157.5°	319.9	322.8
160°	315.1	316.8
162.5°	312.0	313.6
165°	307.5	309.2
167.5°	304.3	304.9
170°	303.4	303.4
172.5°	301.0	300.4
175°	299.6	299.6
177.5°	298.4	297.6
180°	297.6	297.6



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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	2.68	3.53	3.67	4.54	5.88	15.82	16.67	16.81	17.68	19.02
	3H	3.39	4.15	4.39	5.17	6.53	17.64	18.41	18.65	19.43	20.79
	4H	3.69	4.41	4.70	5.43	6.80	18.28	19.00	19.29	20.02	21.39
	6H	3.94	4.61	4.96	5.63	7.01	18.70	19.36	19.72	20.39	21.77
	8H	4.01	4.64	5.04	5.69	7.06	18.81	19.45	19.84	20.49	21.87
	12H	4.02	4.63	5.06	5.67	7.07	18.87	19.48	19.91	20.51	21.92
4H	2H	9.87	10.59	10.89	11.62	12.98	16.10	16.82	17.12	17.84	19.21
	3H	11.44	12.05	12.47	13.10	14.48	18.12	18.73	19.16	19.78	21.16
	4H	11.53	12.09	12.57	13.13	14.54	18.88	19.44	19.92	20.48	21.88
	6H	11.54	12.02	12.59	13.09	14.49	19.41	19.89	20.46	20.95	22.35
	8H	11.52	11.97	12.57	13.03	14.44	19.56	20.01	20.61	21.07	22.48
	12H	11.48	11.88	12.55	12.95	14.38	19.65	20.05	20.72	21.12	22.55
8H	4H	12.97	13.42	14.02	14.47	15.89	18.94	19.39	19.99	20.45	21.86
	6H	13.21	13.58	14.28	14.68	16.09	19.56	19.93	20.63	21.03	22.44
	8H	13.23	13.55	14.31	14.64	16.07	19.77	20.10	20.85	21.18	22.61
	12H	13.20	13.48	14.28	14.56	16.03	19.90	20.19	20.99	21.27	22.74
12H	4H	13.11	13.51	14.18	14.58	16.01	18.89	19.30	19.96	20.37	21.79
	6H	13.46	13.79	14.55	14.87	16.31	19.54	19.87	20.62	20.95	22.38
	8H	13.53	13.82	14.62	14.90	16.37	19.76	20.05	20.85	21.13	22.60