

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: P936218

Luminaire Tested: SQ4-FB-025U-050D-840-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

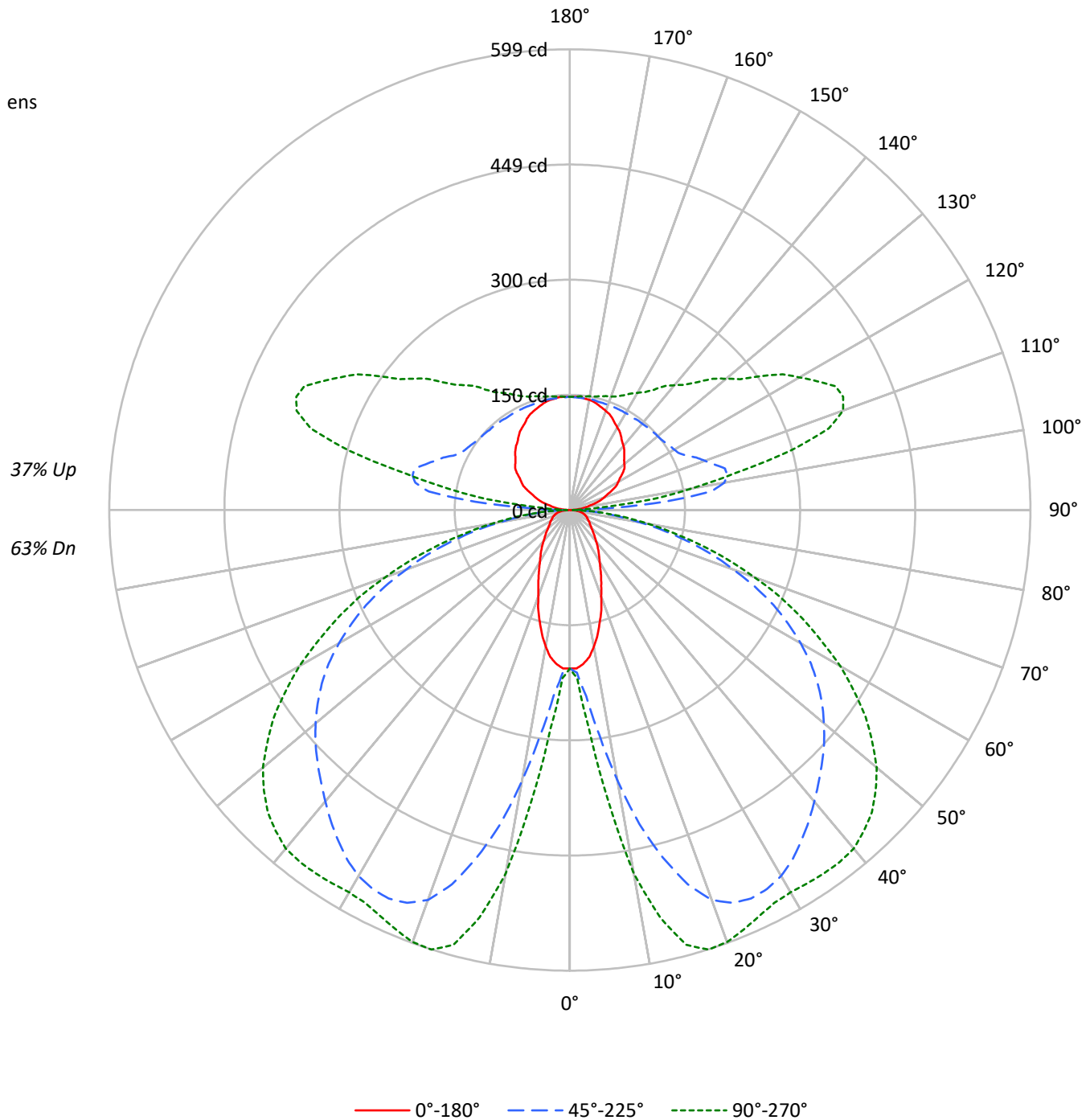
Test Method: LM-79-2019  
Report Number: P936218  
REPORT IS A COMBINATION OF REPORTS P933437 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-050D-840-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2551.0 lumens  
Efficiency: N/A  
Efficacy: 116.0 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: Semi-Direct  
  
Input Watts (W): 22  
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	
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	68	68	68	63
1	100	95	91	87	93	89	86	82	78	75	73	68	66	64	59	57	56	51
2	90	82	76	70	84	77	71	66	68	63	59	59	55	52	51	48	46	42
3	82	72	64	57	76	67	60	55	59	53	49	51	47	43	44	41	38	34
4	75	63	54	48	69	59	52	46	52	46	41	45	40	37	39	35	32	29
5	68	56	47	41	64	52	45	39	46	40	35	40	35	31	35	31	28	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	21
7	58	45	36	30	54	42	34	29	37	31	26	33	27	23	28	24	21	18
8	53	40	32	26	50	38	31	25	34	27	23	30	24	21	26	22	18	16
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	24	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15	13

**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	1.0
10°-20°	118.2	4.6
20°-30°	206.7	8.1
30°-40°	266.1	10.4
40°-50°	297.2	11.7
50°-60°	284.7	11.2
60°-70°	225.6	8.8
70°-80°	132.7	5.2
80°-90°	37.4	1.5
90°-100°	71.9	2.8
100°-110°	189.0	7.4
110°-120°	195.9	7.7
120°-130°	157.1	6.2
130°-140°	123.3	4.8
140°-150°	94.6	3.7
150°-160°	68.2	2.7
160°-170°	41.7	1.6
170°-180°	14.1	0.6
0°-30°	351.6	13.8
0°-40°	617.6	24.2
0°-60°	1199.5	47.0
0°-90°	1595.2	62.5
90°-120°	456.8	17.9
90°-150°	831.9	32.6
90°-180°	956.0	37.5
0°-180°	2551.0	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°	1	3	8	4	4	1
95°	10	37	124	64	44	11
105°	34	52	209	317	296	36
115°	60	73	167	334	381	60
125°	84	94	152	257	303	75
135°	100	110	147	208	235	78
145°	116	124	146	177	191	73
155°	131	135	146	160	164	60
165°	142	144	146	151	153	40
175°	147	147	146	148	148	14
180°	147	147	147	147	147	



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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°	1.0	1.8	2.6	2.8	4.3	6.4	7.5	6.7	5.0	3.8	3.8
92.5°	4.0	10.7	17.4	19.1	26.9	37.2	42.4	37.1	26.7	18.8	18.0
95°	9.5	21.8	34.2	37.2	66.1	104.5	123.8	110.5	83.8	63.8	61.6
97.5°	16.4	27.3	38.1	40.9	89.0	153.1	185.2	176.9	160.0	147.3	143.0
100°	21.7	31.6	41.5	44.0	97.3	168.6	204.1	204.7	206.0	206.9	201.7
102.5°	26.3	35.5	44.8	47.0	101.2	173.4	209.5	220.2	241.7	257.8	253.3
105°	34.1	41.9	49.6	51.6	104.0	173.9	208.9	233.0	281.1	317.1	314.8
107.5°	42.0	49.2	56.5	58.3	104.5	166.2	197.0	230.6	297.7	348.1	348.7
110°	47.3	53.8	60.4	62.0	103.7	159.4	187.1	224.7	299.7	356.0	358.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	52.6	58.8	65.0	66.6	103.7	153.3	178.1	216.6	293.3	350.9	354.7
115°	60.5	66.2	71.9	73.4	104.7	146.5	167.4	204.3	278.3	333.7	339.0
117.5°	68.3	73.5	78.7	80.0	106.7	142.2	160.0	193.4	260.0	310.1	316.0
120°	72.8	77.8	82.7	83.9	108.2	140.7	156.9	187.4	248.5	294.2	299.9
122.5°	77.3	82.2	87.1	88.4	110.5	139.9	154.6	182.1	237.0	278.2	283.8
125°	84.1	88.6	93.2	94.4	113.6	139.3	152.2	175.5	222.2	257.2	262.3
127.5°	89.6	94.3	98.8	100.0	116.7	138.9	150.1	170.1	210.2	240.3	244.6
130°	92.6	97.5	102.5	103.7	119.0	139.2	149.3	167.2	202.8	229.6	233.6
132.5°	95.7	100.7	105.6	106.8	120.7	139.3	148.6	164.6	196.5	220.5	224.1
135°	100.3	104.7	109.3	110.4	122.7	139.2	147.4	160.7	187.5	207.6	210.6
137.5°	104.9	109.4	113.8	114.9	125.7	140.0	147.2	158.5	181.1	198.1	200.7
140°	108.8	112.8	117.0	118.0	127.5	140.2	146.5	156.3	175.9	190.5	192.9
142.5°	111.7	115.5	119.3	120.2	129.0	140.7	146.5	155.1	172.3	185.2	187.2
145°	116.3	119.5	122.9	123.7	131.0	140.7	145.5	152.5	166.6	177.1	178.7
147.5°	120.8	124.0	127.3	128.0	133.9	141.7	145.5	151.1	162.1	170.4	171.7
150°	123.8	126.7	129.6	130.3	135.4	142.2	145.5	150.2	159.6	166.6	167.6
152.5°	126.9	129.0	131.2	131.8	136.3	142.5	145.5	149.5	157.5	163.5	164.3
155°	131.4	133.0	134.7	135.1	138.5	143.2	145.5	148.7	155.1	159.9	160.4
157.5°	134.8	136.3	137.9	138.3	140.7	144.0	145.5	148.0	152.9	156.6	157.0
160°	137.0	138.2	139.5	139.8	141.7	144.2	145.5	147.6	151.9	155.0	155.2
162.5°	139.3	140.2	141.2	141.4	142.8	144.6	145.5	147.3	150.9	153.5	153.7
165°	141.8	142.6	143.5	143.7	144.2	145.1	145.5	146.8	149.4	151.3	151.5
167.5°	144.1	144.4	144.8	144.9	145.4	146.1	146.5	147.3	149.0	150.3	150.4
170°	145.5	145.9	146.3	146.4	146.4	146.5	146.5	147.3	149.0	150.3	150.3
172.5°	146.3	146.4	146.5	146.5	146.5	146.5	146.5	147.2	148.5	149.5	149.4
175°	147.4	147.4	147.4	147.4	147.1	146.7	146.5	146.9	147.8	148.4	148.4
177.5°	147.4	147.4	147.4	147.4	147.2	146.9	146.7	147.0	147.7	148.2	148.1
180°	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4



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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°	3.8	3.8
92.5°	15.0	12.1
95°	52.6	43.5
97.5°	125.8	108.6
100°	181.3	160.7
102.5°	235.7	218.2
105°	305.4	295.9
107.5°	350.9	353.2
110°	368.2	378.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	369.8	384.9
115°	360.0	381.0
117.5°	339.2	362.5
120°	322.5	345.0
122.5°	306.1	328.4
125°	282.9	303.4
127.5°	261.9	279.2
130°	249.6	265.6
132.5°	238.4	252.7
135°	223.1	235.4
137.5°	210.7	220.9
140°	202.2	211.7
142.5°	195.3	203.4
145°	184.9	191.0
147.5°	176.8	181.9
150°	171.7	175.9
152.5°	167.4	170.5
155°	162.4	164.5
157.5°	158.5	160.0
160°	156.1	156.9
162.5°	154.5	155.3
165°	152.3	153.1
167.5°	150.7	151.1
170°	150.3	150.3
172.5°	149.1	148.8
175°	148.4	148.4
177.5°	147.8	147.4
180°	147.4	147.4



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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	4.31	5.34	5.14	6.21	7.28	17.45	18.49	18.28	19.35	20.43
	3H	5.03	5.96	5.87	6.83	7.93	19.29	20.22	20.13	21.09	22.20
	4H	5.33	6.22	6.19	7.10	8.21	19.93	20.81	20.79	21.69	22.81
	6H	5.59	6.41	6.47	7.30	8.42	20.36	21.17	21.23	22.06	23.19
	8H	5.67	6.45	6.55	7.35	8.48	20.48	21.26	21.36	22.16	23.29
	12H	5.69	6.44	6.58	7.33	8.49	20.54	21.29	21.43	22.18	23.34
4H	2H	11.52	12.41	12.39	13.28	14.40	17.75	18.63	18.61	19.51	20.62
	3H	13.11	13.85	13.99	14.76	15.89	19.79	20.53	20.67	21.44	22.57
	4H	13.21	13.89	14.10	14.79	15.95	20.56	21.23	21.45	22.14	23.30
	6H	13.23	13.82	14.14	14.75	15.91	21.09	21.68	22.00	22.61	23.77
	8H	13.21	13.76	14.12	14.69	15.86	21.25	21.80	22.16	22.73	23.90
	12H	13.18	13.68	14.11	14.62	15.80	21.35	21.84	22.28	22.79	23.96
8H	4H	14.66	15.21	15.57	16.13	17.31	20.63	21.18	21.54	22.11	23.28
	6H	14.91	15.37	15.85	16.33	17.50	21.26	21.71	22.19	22.68	23.85
	8H	14.93	15.34	15.88	16.29	17.48	21.47	21.88	22.42	22.83	24.02
	12H	14.91	15.27	15.86	16.22	17.45	21.62	21.97	22.57	22.92	24.16
12H	4H	14.81	15.31	15.74	16.25	17.43	20.60	21.09	21.52	22.03	23.21
	6H	15.17	15.57	16.11	16.53	17.72	21.24	21.65	22.19	22.61	23.79
	8H	15.25	15.60	16.20	16.55	17.79	21.48	21.83	22.43	22.78	24.02