

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: P936614

Luminaire Tested: SQ4-FB-050U-050D-835-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

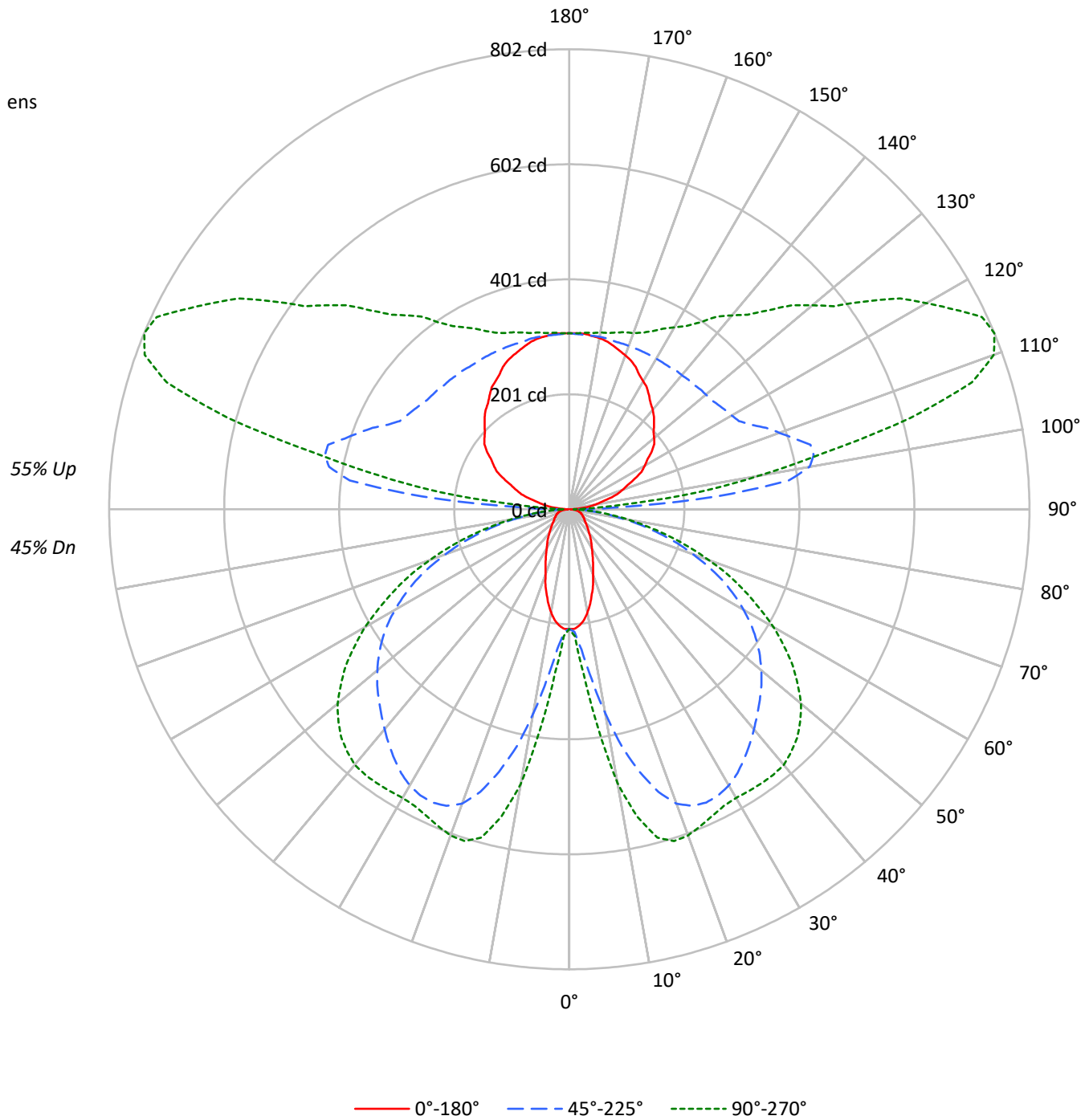
Test Method: LM-79-2019  
Report Number: P936614  
REPORT IS A COMBINATION OF REPORTS P933469 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-835-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3606.0 lumens  
Efficiency: N/A  
Efficacy: 127.0 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 (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

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### Luminous Intensity Polar Plot





TEST NUMBER: P936614

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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	22	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°	1936	1936	1936
5°	1890	2236	2602
10°	1712	3257	4314
15°	1453	4252	5210
20°	1182	4924	5309
25°	985	5149	5201
30°	829	5177	5192
35°	731	5087	5325
40°	637	4972	5464
45°	575	4885	5486
50°	527	4806	5395
55°	503	4694	5155
60°	512	4482	4778
65°	531	4161	4259
70°	561	3622	3599
75°	617	2945	2808
80°	660	2036	1893
85°	555	1076	967

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5486 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.0	0.7
10°-20°	119.6	3.3
20°-30°	209.2	5.8
30°-40°	269.3	7.5
40°-50°	300.8	8.3
50°-60°	288.1	8.0
60°-70°	228.3	6.3
70°-80°	134.3	3.7
80°-90°	38.5	1.1
90°-100°	149.7	4.2
100°-110°	393.6	10.9
110°-120°	408.1	11.3
120°-130°	327.3	9.1
130°-140°	256.8	7.1
140°-150°	197.1	5.5
150°-160°	142.0	3.9
160°-170°	86.9	2.4
170°-180°	29.3	0.8
<b>0°-30°</b>	<b>355.8</b>	<b>9.9</b>
<b>0°-40°</b>	<b>625.1</b>	<b>17.3</b>
<b>0°-60°</b>	<b>1214.1</b>	<b>33.7</b>
<b>0°-90°</b>	<b>1615.2</b>	<b>44.8</b>
<b>90°-120°</b>	<b>951.3</b>	<b>26.4</b>
<b>90°-150°</b>	<b>1732.6</b>	<b>48.0</b>
<b>90°-180°</b>	<b>1991.0</b>	<b>55.2</b>
<b>0°-180°</b>	<b>3606.0</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	209	209	209	209	209	
5°	203	218	246	278	288	19
15°	152	281	474	574	592	42
25°	97	319	564	589	590	45
35°	66	305	531	562	584	41
45°	45	243	470	538	562	35
55°	32	154	398	463	476	29
65°	26	82	296	333	337	25
75°	19	50	162	178	179	20
85°	7	15	40	44	45	7
90°	2	6	16	8	8	2
95°	20	78	258	133	90	22
105°	71	107	435	661	616	75
115°	126	153	348	695	794	124
125°	175	196	317	536	632	156
135°	209	230	307	432	490	162
145°	242	258	303	369	398	152
155°	274	281	303	333	343	126
165°	295	299	303	315	319	83
175°	307	307	305	309	309	29
180°	307	307	307	307	307	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6
2.5°	208.6	208.6	210.0	210.6	212.0	212.7	214.0	215.3	219.4	220.0	221.4
5°	203.3	206.0	214.7	218.0	227.4	240.2	245.5	254.3	272.4	277.7	281.1
7.5°	195.2	201.3	222.7	228.1	251.6	285.1	299.2	318.0	346.8	360.9	372.3
10°	182.5	195.2	233.5	246.2	284.4	335.4	361.6	387.8	431.4	450.8	458.2
12.5°	168.4	189.2	244.9	262.3	317.3	391.8	423.3	452.2	501.8	528.0	532.0
15°	152.3	180.5	255.6	281.1	352.2	438.7	473.6	509.2	555.5	574.2	578.9
17.5°	138.2	173.8	265.7	292.5	379.0	481.0	516.6	546.1	583.6	596.4	599.7
20°	120.8	163.0	272.4	307.3	407.2	511.9	546.1	568.9	594.4	602.4	603.8
22.5°	108.0	151.6	276.4	312.6	426.0	530.6	559.5	577.6	595.0	597.7	598.4
25°	97.3	138.9	275.7	318.7	442.1	542.0	564.2	577.6	587.7	589.0	589.0
27.5°	87.2	124.8	273.0	320.0	454.2	544.7	562.2	571.6	576.3	578.9	578.9
30°	78.5	111.4	266.3	317.3	459.5	542.0	556.1	560.8	565.5	569.6	571.6
32.5°	71.8	98.6	256.3	311.9	460.2	535.3	545.4	548.1	554.8	564.2	567.5
35°	65.7	85.9	244.9	304.6	456.2	524.6	531.3	534.0	547.4	561.5	566.2
37.5°	59.7	76.5	230.1	291.8	450.1	511.9	516.6	521.3	542.0	558.8	564.2
40°	53.7	68.4	212.7	277.7	440.8	496.4	500.5	507.8	535.3	554.8	560.2
42.5°	49.0	61.7	193.9	263.0	428.7	479.0	485.0	495.8	527.3	548.1	554.1
45°	44.9	55.0	173.8	242.8	413.2	460.9	469.6	484.4	517.9	538.0	543.4
47.5°	40.9	50.3	153.0	222.1	396.5	442.8	454.2	470.9	505.2	524.6	529.3
50°	37.6	45.6	132.2	199.9	378.4	423.3	436.7	454.2	489.1	507.2	513.2
52.5°	34.9	41.6	112.7	177.8	357.6	403.2	418.6	436.7	469.6	487.0	491.1
55°	32.2	38.2	95.9	154.3	336.1	381.7	398.5	415.9	448.1	462.9	465.6
57.5°	30.9	35.6	81.8	132.2	313.3	357.6	376.3	392.4	422.6	434.0	436.7
60°	28.8	33.5	71.1	113.4	288.5	334.8	350.9	367.0	392.4	401.8	403.9
62.5°	26.8	32.2	63.1	95.3	263.0	307.9	324.0	338.8	360.2	367.0	369.6
65°	25.5	30.9	57.0	81.8	236.8	279.7	295.8	308.6	326.0	332.7	334.1
67.5°	24.2	29.5	52.3	70.4	210.6	251.6	263.6	275.7	289.1	295.8	296.5
70°	22.1	28.2	48.3	62.4	183.8	219.4	229.4	242.2	252.9	256.3	258.3
72.5°	20.8	26.2	45.6	56.4	156.3	188.5	197.9	205.3	214.7	218.0	218.0
75°	18.8	23.5	42.9	50.3	128.1	154.3	162.3	169.7	177.1	178.4	176.4
77.5°	16.8	20.8	36.9	42.3	100.0	122.1	128.8	132.8	138.9	140.2	140.9
80°	14.1	18.1	28.8	32.9	72.5	89.9	94.6	97.9	103.3	103.3	104.7
82.5°	10.7	14.1	20.8	23.5	49.0	61.7	65.7	67.8	71.1	71.1	71.1
85°	6.7	8.7	13.4	15.4	29.5	37.6	40.3	40.9	43.6	44.3	44.3
87.5°	3.4	4.7	8.7	9.4	15.4	19.5	19.5	20.8	20.8	20.1	19.5
90°	2.1	3.7	5.4	5.8	9.1	13.5	15.7	13.9	10.4	7.8	7.8
92.5°	8.2	22.2	36.3	39.8	55.9	77.4	88.2	77.3	55.5	39.2	37.6
95°	19.8	45.4	71.1	77.5	137.6	217.7	257.8	230.0	174.5	132.9	128.2
97.5°	34.2	56.8	79.4	85.1	185.3	319.0	385.8	368.3	333.2	306.9	297.9
100°	45.3	65.8	86.4	91.5	202.7	351.0	425.2	426.5	429.1	431.0	420.3
102.5°	54.8	74.0	93.1	97.9	210.7	361.1	436.3	458.7	503.4	536.9	527.7
105°	70.9	87.1	103.3	107.4	216.6	362.3	435.1	485.2	585.4	660.6	655.7
107.5°	87.4	102.5	117.6	121.4	217.7	346.2	410.4	480.3	620.1	724.9	726.1
110°	98.5	112.1	125.8	129.2	216.1	331.9	389.8	467.9	624.2	741.4	746.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	109.4	122.4	135.4	138.7	216.1	319.4	371.0	451.0	610.9	730.9	738.8
115°	125.9	137.9	149.9	152.9	218.1	305.0	348.5	425.5	579.6	695.2	706.1
117.5°	142.2	153.1	164.0	166.7	222.2	296.1	333.1	402.6	541.6	645.9	658.0
120°	151.7	162.0	172.2	174.8	225.5	293.1	326.9	390.4	517.5	612.8	624.6
122.5°	161.0	171.4	181.7	184.3	230.2	291.5	322.1	379.3	493.8	579.6	591.2
125°	175.2	184.6	194.0	196.4	236.6	290.2	317.0	365.6	462.8	535.7	546.4
127.5°	186.7	196.3	205.8	208.2	243.0	289.5	312.7	354.4	437.8	500.4	509.4
130°	192.9	203.2	213.4	216.0	247.7	289.9	311.0	348.2	422.5	478.2	486.5
132.5°	199.3	209.6	219.8	222.4	251.5	290.2	309.6	342.8	409.3	459.2	466.7
135°	208.8	218.1	227.5	229.8	255.6	289.9	307.1	334.9	390.6	432.4	438.8
137.5°	218.5	227.7	237.0	239.3	261.8	291.7	306.7	330.2	377.3	412.6	417.9
140°	226.5	235.0	243.6	245.7	265.5	292.0	305.2	325.6	366.3	396.8	401.7
142.5°	232.7	240.6	248.4	250.4	268.7	293.0	305.2	323.1	358.8	385.6	389.8
145°	242.2	249.0	255.9	257.6	272.8	293.1	303.2	317.8	347.0	368.9	372.1
147.5°	251.7	258.4	265.0	266.7	278.9	295.1	303.2	314.7	337.7	354.9	357.6
150°	257.8	263.8	269.9	271.4	282.0	296.1	303.2	312.9	332.3	346.9	349.1
152.5°	264.2	268.8	273.4	274.5	284.1	296.8	303.2	311.5	328.1	340.5	342.1
155°	273.7	277.1	280.5	281.3	288.6	298.3	303.2	309.8	323.0	332.9	334.0
157.5°	280.7	284.0	287.3	288.1	293.1	299.8	303.2	308.3	318.6	326.3	327.1
160°	285.5	288.0	290.6	291.2	295.2	300.5	303.2	307.6	316.4	323.0	323.4
162.5°	290.2	292.1	294.0	294.5	297.4	301.3	303.2	306.9	314.3	319.9	320.3
165°	295.4	297.1	298.9	299.3	300.6	302.3	303.2	305.8	311.1	315.1	315.5
167.5°	300.1	300.9	301.7	301.9	303.0	304.5	305.2	307.0	310.5	313.1	313.3
170°	303.2	304.0	304.8	305.0	305.1	305.2	305.2	307.0	310.5	313.1	313.1
172.5°	304.8	305.0	305.2	305.2	305.2	305.2	305.2	306.6	309.3	311.4	311.2
175°	307.1	307.1	307.1	307.1	306.5	305.6	305.2	306.1	307.9	309.2	309.2
177.5°	307.1	307.1	307.1	307.1	306.6	306.0	305.7	306.4	307.8	308.8	308.6
180°	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	208.6	208.6
2.5°	222.7	221.4
5°	286.5	287.8
7.5°	385.7	385.1
10°	479.7	485.7
12.5°	548.1	549.4
15°	589.7	592.4
17.5°	605.8	606.5
20°	606.5	605.1
22.5°	599.1	597.7
25°	590.4	589.7
27.5°	582.3	583.0
30°	578.9	581.0
32.5°	578.9	582.3
35°	580.3	583.6
37.5°	579.6	583.6
40°	576.9	581.6
42.5°	569.6	572.9
45°	558.1	562.2
47.5°	543.4	546.1
50°	524.6	527.3
52.5°	501.1	501.8
55°	473.0	475.6
57.5°	442.8	443.4
60°	409.2	411.2
62.5°	373.7	373.7
65°	336.1	337.4
67.5°	297.2	300.5
70°	257.6	258.3
72.5°	218.7	218.7
75°	178.4	179.1
77.5°	140.2	140.2
80°	104.0	104.7
82.5°	71.8	73.1
85°	44.9	44.9
87.5°	20.8	18.8
90°	7.8	7.8
92.5°	31.4	25.1
95°	109.3	90.5
97.5°	262.0	226.1
100°	377.5	334.7
102.5°	491.1	454.5
105°	636.0	616.3
107.5°	730.8	735.6
110°	767.0	787.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	770.3	801.8
115°	749.8	793.5
117.5°	706.5	755.0
120°	671.6	718.7
122.5°	637.7	684.1
125°	589.1	631.9
127.5°	545.5	581.6
130°	519.9	553.2
132.5°	496.5	526.4
135°	464.6	490.3
137.5°	438.9	460.0
140°	421.4	441.1
142.5°	406.8	423.8
145°	385.0	397.8
147.5°	368.2	378.8
150°	357.7	366.3
152.5°	348.6	355.1
155°	338.3	342.6
157.5°	330.1	333.1
160°	325.2	326.9
162.5°	322.0	323.6
165°	317.3	319.1
167.5°	314.0	314.7
170°	313.1	313.1
172.5°	310.6	310.0
175°	309.2	309.2
177.5°	307.9	307.1
180°	307.1	307.1



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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	2.79	3.64	3.78	4.65	5.99	15.93	16.78	16.92	17.79	19.13
	3H	3.49	4.26	4.50	5.28	6.64	17.75	18.52	18.76	19.54	20.90
	4H	3.79	4.52	4.81	5.54	6.91	18.39	19.11	19.40	20.13	21.50
	6H	4.04	4.71	5.07	5.74	7.12	18.81	19.47	19.83	20.50	21.88
	8H	4.11	4.75	5.14	5.79	7.17	18.92	19.56	19.95	20.60	21.98
	12H	4.13	4.73	5.17	5.77	7.17	18.98	19.58	20.02	20.62	22.02
4H	2H	9.98	10.70	11.00	11.73	13.09	16.20	16.93	17.23	17.95	19.32
	3H	11.55	12.15	12.58	13.20	14.59	18.23	18.84	19.27	19.89	21.27
	4H	11.64	12.20	12.68	13.24	14.65	18.99	19.55	20.03	20.59	21.99
	6H	11.65	12.13	12.70	13.20	14.60	19.52	19.99	20.57	21.06	22.46
	8H	11.63	12.08	12.68	13.14	14.55	19.67	20.12	20.72	21.18	22.59
	12H	11.59	11.99	12.66	13.06	14.49	19.76	20.16	20.82	21.23	22.65
8H	4H	13.08	13.52	14.13	14.58	16.00	19.05	19.50	20.10	20.56	21.97
	6H	13.32	13.69	14.39	14.79	16.20	19.67	20.04	20.74	21.14	22.55
	8H	13.34	13.66	14.42	14.75	16.18	19.88	20.20	20.96	21.29	22.72
	12H	13.31	13.59	14.39	14.67	16.14	20.01	20.30	21.10	21.38	22.85
12H	4H	13.22	13.62	14.29	14.69	16.12	19.00	19.41	20.07	20.48	21.90
	6H	13.57	13.90	14.66	14.98	16.42	19.65	19.98	20.73	21.06	22.49
	8H	13.64	13.93	14.73	15.01	16.48	19.87	20.16	20.96	21.24	22.71