

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: P936665

Luminaire Tested: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

**Test Information**

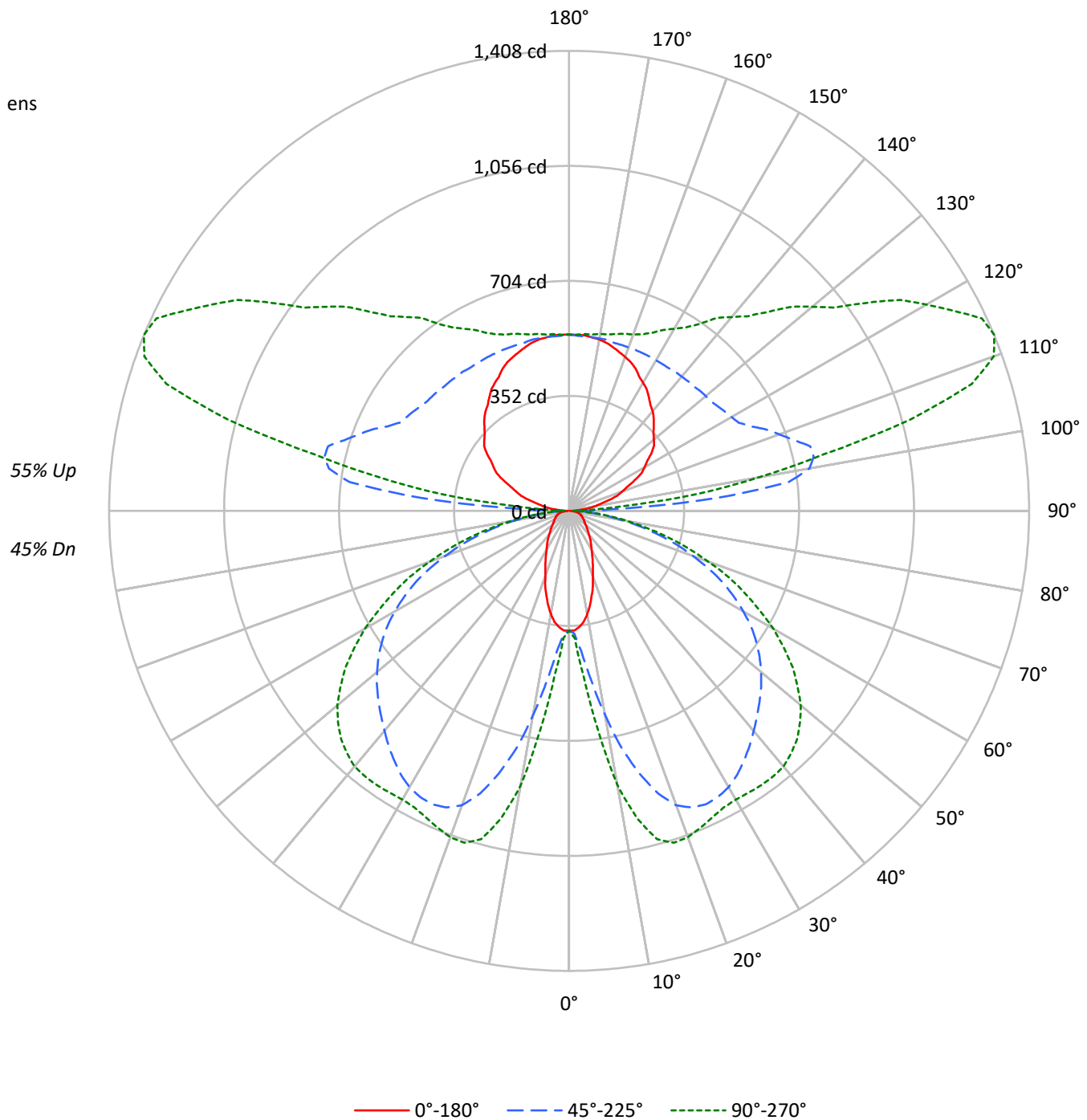
Test Method: LM-79-2019  
Report Number: P936665  
REPORT IS A COMBINATION OF REPORTS P933485 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-8-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6333.5 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 56.8  
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





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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	24	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°	1699	1699	1699
5°	1660	1965	2285
10°	1506	2864	3788
15°	1280	3742	4574
20°	1042	4336	4661
25°	869	4537	4567
30°	733	4566	4558
35°	648	4490	4676
40°	565	4391	4798
45°	512	4319	4817
50°	469	4254	4737
55°	450	4159	4527
60°	460	3977	4195
65°	479	3699	3740
70°	510	3226	3160
75°	565	2630	2465
80°	619	1824	1661
85°	550	968	851

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4817 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.4	0.7
10°-20°	210.0	3.3
20°-30°	367.4	5.8
30°-40°	472.9	7.5
40°-50°	528.3	8.3
50°-60°	506.0	8.0
60°-70°	401.0	6.3
70°-80°	235.8	3.7
80°-90°	67.6	1.1
90°-100°	263.0	4.2
100°-110°	691.3	10.9
110°-120°	716.8	11.3
120°-130°	575.0	9.1
130°-140°	451.2	7.1
140°-150°	346.3	5.5
150°-160°	249.4	3.9
160°-170°	152.6	2.4
170°-180°	51.6	0.8
0°-30°	624.8	9.9
0°-40°	1097.8	17.3
0°-60°	2132.0	33.7
0°-90°	2836.4	44.8
90°-120°	1671.1	26.4
90°-150°	3043.6	48.1
90°-180°	3497.0	55.2
0°-180°	6333.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	357	383	431	488	505	33
15°	267	494	832	1008	1040	74
25°	171	560	991	1034	1036	79
35°	115	535	933	986	1025	72
45°	79	426	825	945	987	61
55°	57	271	700	813	835	52
65°	45	144	520	584	593	44
75°	33	88	285	313	314	35
85°	12	27	71	78	79	13
90°	4	10	28	14	14	4
95°	35	136	453	234	159	39
105°	124	189	764	1160	1082	132
115°	221	269	612	1221	1394	218
125°	308	345	557	941	1110	273
135°	367	404	540	760	861	284
145°	425	453	533	648	699	267
155°	481	494	533	585	602	221
165°	519	526	533	554	560	146
175°	540	540	536	543	543	51
180°	540	540	540	540	540	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3
2.5°	366.3	366.3	368.7	369.9	372.2	373.5	375.8	378.2	385.2	386.4	388.7
5°	356.9	361.7	377.0	382.9	399.4	421.8	431.2	446.4	478.3	487.7	493.6
7.5°	342.8	353.4	391.1	400.5	441.8	500.6	525.4	558.4	609.0	633.8	653.8
10°	320.4	342.8	410.0	432.4	499.5	589.0	635.0	680.9	757.4	791.6	804.6
12.5°	295.7	332.2	430.0	460.6	557.2	688.0	743.4	794.0	881.2	927.1	934.2
15°	267.4	316.9	448.8	493.6	618.5	770.4	831.8	894.1	975.4	1008.4	1016.6
17.5°	242.7	305.1	466.6	513.6	665.6	844.7	907.1	958.9	1024.9	1047.3	1053.2
20°	212.0	286.2	478.3	539.5	715.1	898.9	958.9	999.0	1043.8	1057.9	1060.3
22.5°	189.6	266.2	485.3	548.9	748.0	931.9	982.5	1014.3	1044.9	1049.7	1050.8
25°	170.8	243.8	484.2	559.6	776.3	951.9	990.7	1014.3	1032.0	1034.4	1034.4
27.5°	153.2	219.1	479.5	561.9	797.6	956.6	987.2	1003.7	1012.0	1016.6	1016.6
30°	137.8	195.6	467.7	557.2	807.0	951.9	976.6	984.8	993.1	1000.2	1003.7
32.5°	126.0	173.2	450.0	547.8	808.1	940.0	957.8	962.4	974.2	990.7	996.6
35°	115.4	150.8	430.0	534.8	801.1	921.2	933.0	937.8	961.3	986.1	994.2
37.5°	104.9	134.3	404.1	512.5	790.5	898.9	907.1	915.4	951.9	981.3	990.7
40°	94.2	120.2	373.5	487.7	774.0	871.8	878.8	891.8	940.0	974.2	983.7
42.5°	86.0	108.4	340.4	461.8	752.8	841.1	851.8	870.6	926.0	962.4	973.1
45°	79.0	96.6	305.1	426.4	725.7	809.4	824.6	850.5	909.5	944.8	954.2
47.5°	71.8	88.4	268.6	390.0	696.2	777.6	797.6	827.0	887.1	921.2	929.5
50°	66.0	80.1	232.0	351.1	664.4	743.4	766.9	797.6	858.8	890.6	901.2
52.5°	61.2	73.1	197.9	312.1	627.9	708.0	735.1	766.9	824.6	855.3	862.3
55°	56.6	67.2	168.5	271.0	590.2	670.3	699.7	730.4	787.0	812.9	817.6
57.5°	54.2	62.4	143.7	232.0	550.2	627.9	660.9	689.2	742.2	762.2	766.9
60°	50.7	58.9	124.9	199.1	506.6	587.8	616.1	644.4	689.2	705.6	709.2
62.5°	47.2	56.6	110.8	167.3	461.8	540.8	569.0	595.0	632.6	644.4	649.2
65°	44.8	54.2	100.1	143.7	415.9	491.2	519.5	541.9	572.6	584.3	586.7
67.5°	42.4	51.8	91.9	123.7	369.9	441.8	463.0	484.2	507.7	519.5	520.7
70°	38.9	49.4	84.8	109.5	322.8	385.2	402.9	425.3	444.2	450.0	453.6
72.5°	36.5	45.9	80.1	99.0	274.5	331.0	347.5	360.5	377.0	382.9	382.9
75°	33.0	41.2	75.4	88.4	225.0	271.0	285.1	298.0	311.0	313.4	309.9
77.5°	29.4	36.5	64.8	74.2	175.6	214.4	226.2	233.3	243.8	246.2	247.4
80°	24.8	31.8	50.7	57.7	127.3	157.8	166.1	172.0	181.5	181.5	183.7
82.5°	18.9	24.8	36.5	41.2	86.0	108.4	115.4	119.0	124.9	124.9	124.9
85°	11.8	15.3	23.5	27.1	51.8	66.0	70.7	71.8	76.6	77.7	77.7
87.5°	5.9	8.3	15.3	16.5	27.1	34.2	34.2	36.5	36.5	35.3	34.2
90°	3.6	6.5	9.4	10.1	15.9	23.6	27.5	24.4	18.4	13.8	13.8
92.5°	14.5	39.1	63.8	69.9	98.3	136.0	154.9	135.8	97.5	68.8	66.0
95°	34.8	79.8	124.9	136.1	241.7	382.5	452.9	404.2	306.7	233.5	225.3
97.5°	60.1	99.8	139.6	149.5	325.6	560.4	677.8	647.0	585.3	539.1	523.3
100°	79.7	115.7	151.7	160.7	356.2	616.7	746.9	749.2	753.7	757.0	738.2
102.5°	96.3	130.0	163.5	172.0	370.1	634.4	766.5	805.8	884.3	943.1	927.0
105°	124.5	153.0	181.5	188.7	380.6	636.4	764.3	852.3	1028.4	1160.4	1151.7
107.5°	153.5	180.1	206.6	213.3	382.4	608.0	720.8	843.6	1089.2	1273.4	1275.5
110°	173.0	197.0	221.1	227.0	379.6	582.9	684.6	821.9	1096.4	1302.3	1311.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	192.3	215.1	237.9	243.6	379.7	561.1	651.7	792.1	1073.1	1283.8	1297.7
115°	221.2	242.3	263.4	268.7	383.2	535.9	612.3	747.6	1018.2	1221.2	1240.3
117.5°	249.8	268.9	288.1	292.9	390.3	520.1	585.0	707.2	951.5	1134.7	1155.9
120°	266.5	284.5	302.6	307.1	396.1	514.9	574.2	685.8	909.0	1076.4	1097.0
122.5°	282.7	300.9	319.1	323.7	404.4	512.0	565.9	666.4	867.4	1018.1	1038.5
125°	307.8	324.3	340.9	345.0	415.6	509.8	556.8	642.2	813.0	941.0	959.8
127.5°	328.0	344.7	361.4	365.6	426.9	508.4	549.2	622.5	769.1	879.1	894.9
130°	338.8	356.9	374.9	379.4	435.0	509.2	546.3	611.6	742.1	839.9	854.6
132.5°	350.1	368.1	386.2	390.7	441.7	509.8	543.8	602.3	719.1	806.6	819.7
135°	366.8	383.2	399.5	403.7	448.9	509.2	539.5	588.4	686.2	759.6	770.9
137.5°	383.8	400.1	416.3	420.4	459.8	512.4	538.7	580.1	662.9	724.9	734.1
140°	397.9	412.9	427.8	431.6	466.5	512.9	536.2	571.9	643.4	696.9	705.5
142.5°	408.8	422.6	436.4	439.9	472.0	514.8	536.2	567.6	630.4	677.4	684.9
145°	425.4	437.5	449.6	452.6	479.3	514.9	532.6	558.2	609.6	648.1	653.7
147.5°	442.0	453.8	465.6	468.5	489.8	518.4	532.6	552.8	593.1	623.4	628.1
150°	452.9	463.6	474.2	476.8	495.4	520.2	532.6	549.6	583.8	609.4	613.1
152.5°	464.2	472.3	480.3	482.3	499.1	521.4	532.6	547.2	576.3	598.1	601.0
155°	480.8	486.8	492.7	494.2	507.0	524.1	532.6	544.2	567.3	584.7	586.6
157.5°	493.1	498.9	504.7	506.2	514.9	526.7	532.6	541.6	559.6	573.1	574.4
160°	501.4	506.0	510.5	511.6	518.6	527.9	532.6	540.3	555.7	567.3	568.1
162.5°	509.8	513.2	516.5	517.4	522.5	529.3	532.6	539.1	552.2	561.9	562.6
165°	518.8	521.9	524.9	525.7	527.9	531.0	532.6	537.3	546.6	553.6	554.4
167.5°	527.2	528.6	530.1	530.4	532.3	534.9	536.2	539.3	545.4	550.0	550.3
170°	532.6	534.0	535.5	535.9	535.9	536.1	536.2	539.3	545.4	550.0	550.0
172.5°	535.5	535.9	536.1	536.2	536.2	536.2	536.2	538.7	543.5	547.1	546.8
175°	539.5	539.5	539.5	539.5	538.4	536.9	536.2	537.7	540.8	543.1	543.1
177.5°	539.5	539.5	539.5	539.5	538.6	537.4	536.9	538.1	540.5	542.4	542.0
180°	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	366.3	366.3
2.5°	391.1	388.7
5°	503.0	505.4
7.5°	677.3	676.2
10°	842.3	852.9
12.5°	962.4	964.8
15°	1035.5	1040.3
17.5°	1063.8	1064.9
20°	1064.9	1062.6
22.5°	1052.0	1049.7
25°	1036.7	1035.5
27.5°	1022.5	1023.7
30°	1016.6	1020.2
32.5°	1016.6	1022.5
35°	1019.0	1024.9
37.5°	1017.9	1024.9
40°	1013.1	1021.4
42.5°	1000.2	1006.1
45°	980.2	987.2
47.5°	954.2	958.9
50°	921.2	926.0
52.5°	880.0	881.2
55°	830.5	835.3
57.5°	777.6	778.7
60°	718.6	722.1
62.5°	656.2	656.2
65°	590.2	592.6
67.5°	521.9	527.8
70°	452.4	453.6
72.5°	384.1	384.1
75°	313.4	314.5
77.5°	246.2	246.2
80°	182.6	183.7
82.5°	126.0	128.4
85°	79.0	79.0
87.5°	36.5	33.0
90°	13.8	13.8
92.5°	55.1	44.2
95°	192.1	159.0
97.5°	460.2	397.2
100°	663.1	587.9
102.5°	862.7	798.3
105°	1117.1	1082.5
107.5°	1283.8	1292.2
110°	1347.3	1383.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1353.0	1408.4
115°	1317.1	1393.9
117.5°	1241.1	1326.2
120°	1179.7	1262.5
122.5°	1120.1	1201.7
125°	1034.9	1110.1
127.5°	958.3	1021.7
130°	913.2	971.8
132.5°	872.2	924.7
135°	816.1	861.3
137.5°	771.1	808.1
140°	740.1	774.7
142.5°	714.6	744.4
145°	676.3	698.8
147.5°	646.8	665.5
150°	628.2	643.4
152.5°	612.4	623.9
155°	594.2	601.7
157.5°	579.8	585.0
160°	571.2	574.2
162.5°	565.5	568.4
165°	557.4	560.4
167.5°	551.6	552.9
170°	550.0	550.0
172.5°	545.7	544.5
175°	543.1	543.1
177.5°	540.8	539.5
180°	539.5	539.5



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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	2.35	3.20	3.34	4.21	5.55	15.53	16.38	16.52	17.39	18.73
	3H	3.06	3.82	4.06	4.84	6.20	17.37	18.13	18.37	19.15	20.51
	4H	3.35	4.08	4.37	5.10	6.47	18.01	18.74	19.03	19.76	21.13
	6H	3.60	4.27	4.63	5.30	6.68	18.44	19.11	19.47	20.14	21.52
	8H	3.67	4.31	4.70	5.35	6.73	18.57	19.20	19.60	20.24	21.62
	12H	3.69	4.29	4.73	5.33	6.73	18.63	19.24	19.67	20.27	21.68
4H	2H	9.57	10.29	10.59	11.31	12.68	15.80	16.53	16.83	17.55	18.92
	3H	11.13	11.74	12.16	12.79	14.17	17.85	18.45	18.88	19.50	20.89
	4H	11.23	11.78	12.27	12.82	14.23	18.62	19.17	19.65	20.21	21.62
	6H	11.24	11.72	12.29	12.78	14.18	19.15	19.63	20.20	20.70	22.10
	8H	11.21	11.66	12.26	12.72	14.14	19.32	19.76	20.37	20.82	22.24
	12H	11.17	11.58	12.24	12.65	14.07	19.41	19.81	20.48	20.89	22.31
8H	4H	12.67	13.12	13.72	14.18	15.59	18.67	19.12	19.73	20.18	21.60
	6H	12.91	13.28	13.99	14.38	15.80	19.30	19.67	20.38	20.77	22.19
	8H	12.93	13.26	14.01	14.34	15.77	19.52	19.85	20.60	20.93	22.37
	12H	12.90	13.19	13.98	14.26	15.74	19.67	19.95	20.75	21.03	22.51
12H	4H	12.81	13.22	13.88	14.29	15.71	18.63	19.03	19.70	20.10	21.53
	6H	13.17	13.50	14.25	14.58	16.01	19.29	19.61	20.37	20.70	22.13
	8H	13.24	13.53	14.33	14.61	16.08	19.52	19.80	20.60	20.88	22.35