

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: P936789

Luminaire Tested: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

**Test Information**

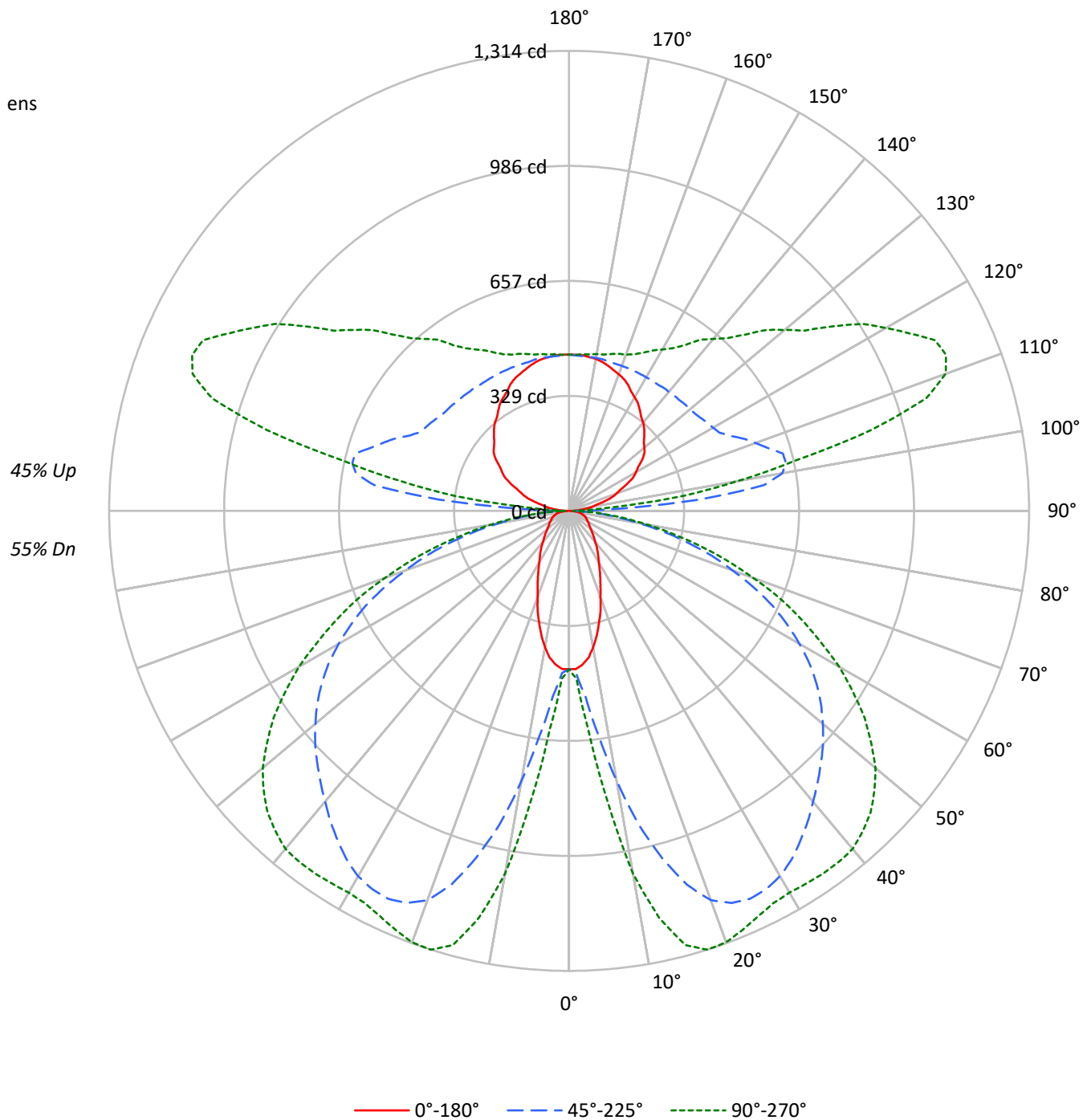
Test Method: LM-79-2019  
Report Number: P936789  
REPORT IS A COMBINATION OF REPORTS P933478 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-6-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6392.4 lumens  
Efficiency: N/A  
Efficacy: 117.1 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 54.6  
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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2796	2796	2796
5°	2731	3231	3759
10°	2476	4709	6231
15°	2103	6151	7525
20°	1712	7126	7669
25°	1428	7456	7513
30°	1203	7501	7499
35°	1063	7375	7693
40°	926	7210	7894
45°	838	7089	7924
50°	768	6980	7793
55°	735	6822	7447
60°	752	6519	6902
65°	780	6061	6152
70°	830	5282	5197
75°	916	4302	4056
80°	993	2980	2732
85°	864	1578	1399

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7924 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.5	0.9
10°-20°	259.2	4.1
20°-30°	453.3	7.1
30°-40°	583.6	9.1
40°-50°	651.8	10.2
50°-60°	624.3	9.8
60°-70°	494.7	7.7
70°-80°	290.9	4.6
80°-90°	82.5	1.3
90°-100°	217.6	3.4
100°-110°	572.0	8.9
110°-120°	593.1	9.3
120°-130°	475.8	7.4
130°-140°	373.3	5.8
140°-150°	286.5	4.5
150°-160°	206.4	3.2
160°-170°	126.3	2.0
170°-180°	42.7	0.7
0°-30°	771.0	12.1
0°-40°	1354.5	21.2
0°-60°	2630.6	41.2
0°-90°	3498.8	54.7
90°-120°	1382.8	21.6
90°-150°	2518.4	39.4
90°-180°	2894.0	45.3
0°-180°	6392.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	440	472	532	602	624	41
15°	330	609	1026	1244	1284	92
25°	211	690	1222	1276	1278	97
35°	142	660	1151	1217	1265	89
45°	97	526	1017	1166	1218	75
55°	70	334	863	1003	1030	64
65°	55	177	641	721	731	55
75°	41	109	352	387	388	43
85°	14	33	87	96	97	15
90°	3	8	23	11	11	3
95°	29	113	375	193	132	32
105°	103	156	632	960	896	109
115°	183	222	507	1010	1153	181
125°	255	286	461	779	918	226
135°	304	334	446	628	713	235
145°	352	374	441	536	578	221
155°	398	409	441	484	498	183
165°	429	435	441	458	464	121
175°	446	446	444	449	449	42
180°	446	446	446	446	446	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0
2.5°	452.0	452.0	454.9	456.4	459.3	460.8	463.7	466.6	475.3	476.7	479.7
5°	440.4	446.2	465.1	472.4	492.7	520.4	532.0	550.9	590.1	601.7	609.0
7.5°	423.0	436.0	482.6	494.2	545.1	617.7	648.3	689.0	751.5	782.0	806.7
10°	395.4	423.0	505.8	533.4	616.3	726.8	783.4	840.1	934.6	976.8	992.7
12.5°	364.8	409.9	530.5	568.3	687.5	848.8	917.2	979.7	1087.2	1144.0	1152.7
15°	329.9	391.0	553.8	609.0	763.1	950.6	1026.2	1103.3	1203.6	1244.3	1254.5
17.5°	299.4	376.5	575.6	633.7	821.2	1042.2	1119.3	1183.2	1264.6	1292.3	1299.5
20°	261.6	353.2	590.1	665.7	882.3	1109.1	1183.2	1232.7	1287.9	1305.3	1308.2
22.5°	234.0	328.5	598.8	677.3	923.0	1149.8	1212.3	1251.6	1289.4	1295.2	1296.6
25°	210.8	300.9	597.4	690.4	957.9	1174.5	1222.5	1251.6	1273.4	1276.3	1276.3
27.5°	189.0	270.4	591.6	693.3	984.0	1180.3	1218.1	1238.5	1248.7	1254.5	1254.5
30°	170.1	241.3	577.0	687.5	995.6	1174.5	1205.0	1215.2	1225.4	1234.1	1238.5
32.5°	155.5	213.7	555.2	675.9	997.1	1160.0	1181.8	1187.6	1202.1	1222.5	1229.8
35°	142.4	186.0	530.5	659.9	988.4	1136.7	1151.3	1157.1	1186.2	1216.7	1226.9
37.5°	129.4	165.7	498.6	632.3	975.3	1109.1	1119.3	1129.5	1174.5	1210.9	1222.5
40°	116.3	148.3	460.8	601.7	954.9	1075.6	1084.3	1100.3	1160.0	1202.1	1213.8
42.5°	106.1	133.7	420.1	569.8	928.8	1037.8	1050.9	1074.1	1142.5	1187.6	1200.7
45°	97.4	119.2	376.5	526.2	895.4	998.6	1017.4	1049.4	1122.2	1165.8	1177.4
47.5°	88.7	109.0	331.4	481.1	859.0	959.3	984.0	1020.4	1094.5	1136.7	1146.9
50°	81.4	98.8	286.3	433.1	819.8	917.2	946.2	984.0	1059.6	1098.8	1112.0
52.5°	75.6	90.1	244.2	385.2	774.7	873.6	907.0	946.2	1017.4	1055.2	1064.0
55°	69.8	82.8	207.9	334.3	728.2	827.0	863.4	901.2	970.9	1002.9	1008.7
57.5°	66.9	77.0	177.3	286.3	678.8	774.7	815.4	850.3	915.7	940.4	946.2
60°	62.5	72.7	154.1	245.6	625.0	725.3	760.2	795.1	850.3	870.6	875.0
62.5°	58.1	69.8	136.6	206.4	569.8	667.2	702.0	734.0	780.5	795.1	800.9
65°	55.2	66.9	123.5	177.3	513.1	606.1	641.0	668.6	706.4	720.9	723.8
67.5°	52.3	64.0	113.4	152.6	456.4	545.1	571.2	597.4	626.5	641.0	642.4
70°	48.0	61.0	104.7	135.2	398.3	475.3	497.1	524.7	548.0	555.2	559.6
72.5°	45.1	56.7	98.8	122.1	338.7	408.4	428.8	444.8	465.1	472.4	472.4
75°	40.7	50.9	93.0	109.0	277.6	334.3	351.7	367.7	383.7	386.6	382.3
77.5°	36.3	45.1	79.9	91.6	216.6	264.5	279.1	287.8	300.9	303.8	305.2
80°	30.5	39.2	62.5	71.2	157.0	194.8	204.9	212.2	223.8	223.8	226.7
82.5°	23.3	30.5	45.1	50.9	106.1	133.7	142.4	146.8	154.1	154.1	154.1
85°	14.5	18.9	29.1	33.4	64.0	81.4	87.2	88.7	94.5	95.9	95.9
87.5°	7.3	10.2	18.9	20.3	33.4	42.2	42.2	45.1	45.1	43.6	42.2
90°	3.0	5.4	7.8	8.4	13.2	19.6	22.8	20.3	15.1	11.3	11.3
92.5°	12.0	32.4	52.7	57.8	81.3	112.6	128.2	112.3	80.6	56.9	54.7
95°	28.8	66.0	103.3	112.6	200.0	316.6	374.8	334.5	253.8	193.2	186.3
97.5°	49.7	82.7	115.5	123.7	269.5	463.8	560.9	535.4	484.3	446.0	432.9
100°	65.9	95.7	125.6	133.0	294.7	510.3	618.0	619.9	623.6	626.5	611.0
102.5°	79.7	107.6	135.4	142.3	306.3	524.9	634.2	666.7	731.7	780.4	767.2
105°	103.1	126.6	150.2	156.1	314.8	526.6	632.4	705.2	850.9	960.2	953.0
107.5°	127.0	149.0	170.9	176.5	316.5	503.1	596.4	698.0	901.2	1053.6	1055.3
110°	143.2	163.0	182.9	187.8	314.1	482.4	566.5	680.0	907.3	1077.6	1085.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	159.1	178.0	196.9	201.6	314.1	464.2	539.2	655.5	888.0	1062.3	1073.7
115°	183.0	200.5	217.9	222.3	317.1	443.4	506.6	618.6	842.5	1010.5	1026.4
117.5°	206.7	222.6	238.4	242.3	323.0	430.4	484.1	585.2	787.3	938.9	956.5
120°	220.4	235.4	250.3	254.1	327.7	426.0	475.1	567.4	752.1	890.6	907.8
122.5°	234.0	249.0	264.1	267.8	334.6	423.6	468.2	551.4	717.7	842.4	859.3
125°	254.7	268.3	282.1	285.5	343.9	421.8	460.8	531.4	672.7	778.6	794.1
127.5°	271.4	285.3	299.1	302.6	353.2	420.7	454.5	515.1	636.3	727.3	740.4
130°	280.4	295.4	310.3	314.0	360.0	421.3	452.0	506.0	614.1	695.1	707.2
132.5°	289.7	304.7	319.6	323.3	365.5	421.8	450.0	498.4	595.0	667.4	678.3
135°	303.5	317.1	330.6	334.0	371.5	421.4	446.4	486.9	567.8	628.5	637.9
137.5°	317.5	331.0	344.4	347.8	380.4	423.9	445.7	479.9	548.4	599.7	607.4
140°	329.3	341.7	354.0	357.1	386.0	424.4	443.7	473.3	532.4	576.7	583.8
142.5°	338.2	349.6	361.0	364.0	390.5	426.0	443.7	469.7	521.5	560.5	566.7
145°	352.0	362.0	372.0	374.5	396.6	426.0	440.7	461.9	504.4	536.2	540.9
147.5°	365.8	375.5	385.3	387.7	405.3	428.9	440.7	457.4	490.8	515.9	519.8
150°	374.8	383.6	392.3	394.6	410.0	430.4	440.7	454.8	483.0	504.2	507.3
152.5°	384.0	390.7	397.4	399.0	412.9	431.4	440.7	452.7	476.8	494.9	497.2
155°	397.9	402.8	407.7	408.9	419.5	433.6	440.7	450.3	469.5	483.8	485.4
157.5°	408.0	412.8	417.6	418.8	426.1	435.9	440.7	448.2	463.1	474.2	475.3
160°	414.9	418.6	422.3	423.3	429.1	436.8	440.7	447.1	459.9	469.5	470.1
162.5°	421.8	424.6	427.4	428.1	432.3	437.9	440.7	446.1	456.9	464.9	465.5
165°	429.3	431.8	434.3	435.0	436.9	439.4	440.7	444.6	452.2	458.0	458.7
167.5°	436.1	437.3	438.6	438.9	440.5	442.6	443.7	446.2	451.3	455.0	455.3
170°	440.7	441.9	443.1	443.4	443.5	443.6	443.7	446.2	451.3	455.0	455.0
172.5°	443.1	443.4	443.6	443.7	443.7	443.7	443.7	445.6	449.6	452.6	452.4
175°	446.4	446.4	446.4	446.4	445.5	444.3	443.7	445.0	447.5	449.3	449.3
177.5°	446.4	446.4	446.4	446.4	445.7	444.8	444.3	445.3	447.3	448.7	448.5
180°	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	452.0	452.0
2.5°	482.6	479.7
5°	620.6	623.6
7.5°	835.8	834.3
10°	1039.3	1052.3
12.5°	1187.6	1190.5
15°	1277.7	1283.5
17.5°	1312.6	1314.1
20°	1314.1	1311.2
22.5°	1298.1	1295.2
25°	1279.2	1277.7
27.5°	1261.7	1263.2
30°	1254.5	1258.8
32.5°	1254.5	1261.7
35°	1257.4	1264.6
37.5°	1255.9	1264.6
40°	1250.1	1260.3
42.5°	1234.1	1241.4
45°	1209.4	1218.1
47.5°	1177.4	1183.2
50°	1136.7	1142.5
52.5°	1085.8	1087.2
55°	1024.7	1030.5
57.5°	959.3	960.8
60°	886.6	891.0
62.5°	809.6	809.6
65°	728.2	731.1
67.5°	643.9	651.2
70°	558.1	559.6
72.5°	473.8	473.8
75°	386.6	388.1
77.5°	303.8	303.8
80°	225.3	226.7
82.5°	155.5	158.4
85°	97.4	97.4
87.5°	45.1	40.7
90°	11.3	11.3
92.5°	45.5	36.5
95°	158.9	131.5
97.5°	380.8	328.7
100°	548.7	486.5
102.5°	713.9	660.6
105°	924.4	895.7
107.5°	1062.2	1069.2
110°	1114.8	1144.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1119.6	1165.3
115°	1089.8	1153.4
117.5°	1026.9	1097.4
120°	976.2	1044.7
122.5°	926.8	994.3
125°	856.3	918.5
127.5°	792.9	845.5
130°	755.6	804.1
132.5°	721.7	765.1
135°	675.3	712.7
137.5°	638.1	668.7
140°	612.4	641.1
142.5°	591.3	615.9
145°	559.6	578.2
147.5°	535.2	550.6
150°	519.9	532.4
152.5°	506.7	516.2
155°	491.7	497.9
157.5°	479.8	484.1
160°	472.6	475.1
162.5°	467.9	470.4
165°	461.2	463.8
167.5°	456.4	457.5
170°	455.0	455.0
172.5°	451.5	450.6
175°	449.3	449.3
177.5°	447.5	446.4
180°	446.4	446.4



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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	4.99	5.94	5.90	6.87	8.07	18.16	19.11	19.07	20.04	21.24
	3H	5.71	6.56	6.62	7.50	8.72	20.00	20.85	20.92	21.79	23.02
	4H	6.01	6.82	6.94	7.76	8.99	20.65	21.45	21.58	22.40	23.63
	6H	6.26	7.01	7.21	7.96	9.21	21.08	21.82	22.02	22.77	24.02
	8H	6.33	7.05	7.29	8.02	9.26	21.20	21.91	22.15	22.88	24.12
	12H	6.35	7.03	7.31	8.00	9.27	21.27	21.94	22.22	22.91	24.18
4H	2H	12.21	13.02	13.15	13.97	15.20	18.44	19.25	19.38	20.20	21.43
	3H	13.79	14.47	14.74	15.44	16.69	20.49	21.17	21.44	22.15	23.39
	4H	13.89	14.51	14.85	15.48	16.75	21.26	21.88	22.22	22.85	24.12
	6H	13.90	14.44	14.88	15.43	16.70	21.80	22.34	22.77	23.33	24.60
	8H	13.88	14.38	14.86	15.37	16.66	21.96	22.46	22.94	23.45	24.74
	12H	13.84	14.30	14.84	15.30	16.59	22.06	22.51	23.05	23.51	24.81
8H	4H	15.34	15.84	16.31	16.82	18.11	21.33	21.83	22.30	22.82	24.10
	6H	15.58	16.00	16.58	17.03	18.31	21.96	22.37	22.96	23.40	24.68
	8H	15.60	15.97	16.61	16.99	18.29	22.18	22.54	23.19	23.56	24.86
	12H	15.57	15.90	16.59	16.91	18.25	22.32	22.65	23.34	23.66	25.00
12H	4H	15.48	15.94	16.48	16.94	18.23	21.29	21.74	22.28	22.74	24.03
	6H	15.84	16.21	16.85	17.22	18.53	21.94	22.31	22.95	23.33	24.63
	8H	15.91	16.24	16.93	17.25	18.59	22.17	22.50	23.19	23.51	24.85