

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: P938110

Luminaire Tested: SQ4-FB-125U-125D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

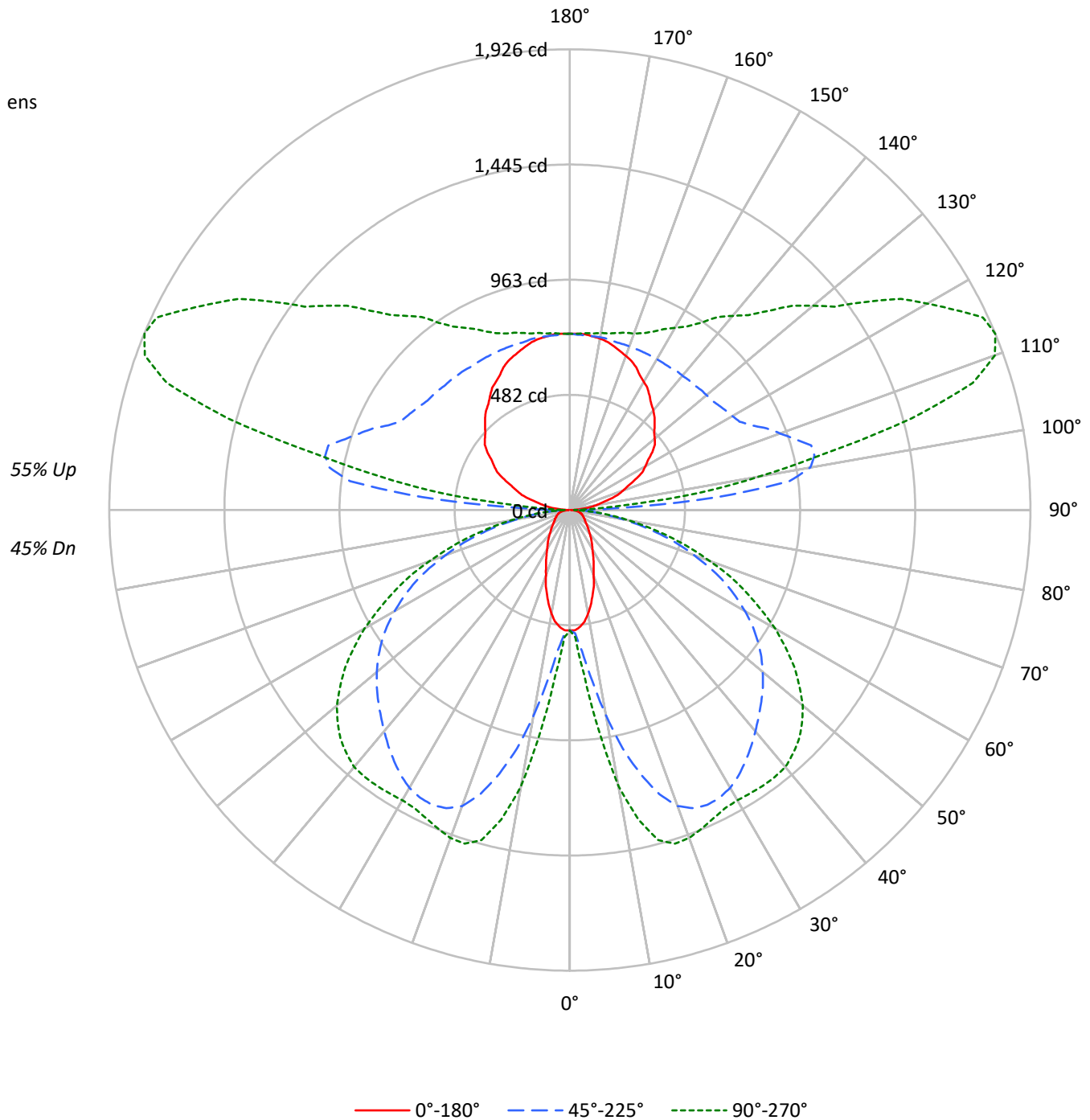
Test Method: LM-79-2019  
Report Number: P938110  
REPORT IS A COMBINATION OF REPORTS P933600 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-125D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8675.7 lumens  
Efficiency: N/A  
Efficacy: 115.4 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): 75.2  
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				
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	44	42	37	37	37	37
2	87	79	73	68	79	73	67	63	61	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	27	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	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	52	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°	4667	4667	4667
5°	4555	5392	6275
10°	4128	7853	10403
15°	3504	10252	12561
20°	2850	11873	12802
25°	2374	12416	12542
30°	1999	12484	12518
35°	1765	12266	12841
40°	1535	11988	13176
45°	1388	11780	13228
50°	1270	11590	13009
55°	1212	11318	12432
60°	1238	10807	11523
65°	1282	10036	10271
70°	1353	8734	8677
75°	1486	7103	6771
80°	1587	4909	4563
85°	1341	2589	2336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13228 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.1	0.8
10°-20°	288.4	3.3
20°-30°	504.5	5.8
30°-40°	649.4	7.5
40°-50°	725.4	8.4
50°-60°	694.8	8.0
60°-70°	550.6	6.3
70°-80°	323.8	3.7
80°-90°	92.8	1.1
90°-100°	359.5	4.1
100°-110°	945.2	10.9
110°-120°	980.0	11.3
120°-130°	786.1	9.1
130°-140°	616.8	7.1
140°-150°	473.4	5.5
150°-160°	340.9	3.9
160°-170°	208.6	2.4
170°-180°	70.5	0.8
0°-30°	858.0	9.9
0°-40°	1507.4	17.4
0°-60°	2927.6	33.7
0°-90°	3894.7	44.9
90°-120°	2284.7	26.3
90°-150°	4161.0	48.0
90°-180°	4781.0	55.1
0°-180°	8675.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	503	503	503	503	503	
5°	490	526	592	670	694	45
15°	367	678	1142	1385	1428	102
25°	235	768	1360	1420	1422	108
35°	158	734	1281	1354	1407	99
45°	108	586	1132	1297	1356	84
55°	78	372	961	1116	1147	71
65°	62	197	713	802	814	61
75°	45	121	392	430	432	47
85°	16	37	97	107	108	17
90°	5	14	38	19	19	5
95°	48	186	619	319	217	53
105°	170	258	1045	1586	1480	180
115°	302	367	837	1670	1906	299
125°	421	472	761	1286	1518	374
135°	501	552	738	1038	1178	388
145°	582	619	728	886	955	364
155°	657	676	728	799	823	302
165°	709	719	728	757	766	200
175°	738	738	733	742	742	70
180°	738	738	738	738	738	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0
2.5°	503.0	503.0	506.3	507.9	511.2	512.8	516.0	519.3	529.0	530.6	533.8
5°	490.1	496.6	517.7	525.7	548.4	579.1	592.1	613.1	656.8	669.7	677.8
7.5°	470.7	485.3	537.1	550.0	606.6	687.5	721.5	766.8	836.3	870.2	897.8
10°	440.0	470.7	562.9	593.7	685.8	808.8	871.9	935.0	1040.1	1087.1	1104.8
12.5°	406.0	456.2	590.4	632.5	765.2	944.7	1020.7	1090.3	1210.0	1273.1	1282.8
15°	367.2	435.2	616.3	677.8	849.2	1057.9	1142.0	1227.8	1339.5	1384.7	1396.0
17.5°	333.3	419.0	640.6	705.3	913.9	1159.8	1245.6	1316.8	1407.3	1438.1	1446.1
20°	291.2	393.1	656.8	740.9	981.9	1234.3	1316.8	1371.8	1433.2	1452.6	1455.9
22.5°	260.4	365.6	666.4	753.8	1027.2	1279.5	1349.1	1392.8	1434.9	1441.4	1442.9
25°	234.6	334.9	664.9	768.3	1066.0	1307.0	1360.5	1392.8	1417.1	1420.3	1420.3
27.5°	210.3	300.9	658.4	771.6	1095.1	1313.5	1355.6	1378.3	1389.5	1396.0	1396.0
30°	189.3	268.5	642.2	765.2	1108.1	1307.0	1341.0	1352.4	1363.6	1373.4	1378.3
32.5°	173.1	237.8	618.0	752.2	1109.7	1290.9	1315.2	1321.6	1337.8	1360.5	1368.5
35°	158.5	207.1	590.4	734.4	1100.0	1265.0	1281.1	1287.6	1319.9	1354.0	1365.3
37.5°	144.0	184.4	554.9	703.7	1085.4	1234.3	1245.6	1256.9	1307.0	1347.5	1360.5
40°	129.4	165.0	512.8	669.7	1062.8	1197.0	1206.8	1224.5	1290.9	1337.8	1350.7
42.5°	118.1	148.8	467.5	634.1	1033.6	1155.0	1169.6	1195.5	1271.5	1321.6	1336.2
45°	108.4	132.7	419.0	585.6	996.4	1111.4	1132.4	1167.9	1248.8	1297.4	1310.3
47.5°	98.7	121.3	368.8	535.5	956.0	1067.7	1095.1	1135.6	1218.0	1265.0	1276.4
50°	90.6	110.0	318.6	482.0	912.3	1020.7	1053.1	1095.1	1179.2	1222.9	1237.5
52.5°	84.1	100.3	271.8	428.7	862.2	972.2	1009.4	1053.1	1132.4	1174.4	1184.1
55°	77.6	92.2	231.4	372.1	810.4	920.4	960.9	1002.9	1080.6	1116.1	1122.6
57.5°	74.4	85.8	197.3	318.6	755.4	862.2	907.5	946.3	1019.1	1046.6	1053.1
60°	69.6	80.9	171.5	273.4	695.6	807.2	846.1	884.9	946.3	969.0	973.8
62.5°	64.7	77.6	152.1	229.7	634.1	742.5	781.3	816.9	868.7	884.9	891.3
65°	61.5	74.4	137.5	197.3	571.0	674.6	713.4	744.2	786.2	802.4	805.6
67.5°	58.2	71.2	126.2	169.9	507.9	606.6	635.7	664.9	697.2	713.4	715.0
70°	53.3	68.0	116.4	150.5	443.2	529.0	553.2	583.9	609.8	618.0	622.8
72.5°	50.2	63.1	110.0	135.8	377.0	454.6	477.2	495.0	517.7	525.7	525.7
75°	45.3	56.6	103.5	121.3	309.0	372.1	391.5	409.3	427.0	430.3	425.4
77.5°	40.4	50.2	89.0	101.9	241.0	294.4	310.6	320.3	334.9	338.0	339.7
80°	33.9	43.7	69.6	79.3	174.7	216.7	228.1	236.1	249.1	249.1	252.4
82.5°	25.9	33.9	50.2	56.6	118.1	148.8	158.5	163.4	171.5	171.5	171.5
85°	16.2	21.0	32.3	37.2	71.2	90.6	97.0	98.7	105.2	106.8	106.8
87.5°	8.1	11.3	21.0	22.7	37.2	46.9	46.9	50.2	50.2	48.6	46.9
90°	5.0	8.9	12.9	13.9	21.8	32.3	37.6	33.4	25.0	18.8	18.8
92.5°	19.8	53.4	87.1	95.5	134.3	186.0	211.8	185.7	133.4	94.1	90.3
95°	47.5	109.1	170.7	186.1	330.5	522.9	619.2	552.6	419.3	319.3	307.9
97.5°	82.1	136.4	190.8	204.4	445.1	766.0	926.6	884.4	800.2	737.0	715.5
100°	108.9	158.2	207.5	219.8	486.9	843.0	1021.1	1024.2	1030.4	1035.0	1009.2
102.5°	131.6	177.6	223.6	235.1	506.0	867.3	1047.9	1101.6	1209.0	1289.5	1267.5
105°	170.3	209.3	248.2	257.9	520.3	870.1	1044.9	1165.3	1405.9	1586.4	1574.5
107.5°	209.8	246.2	282.5	291.6	522.9	831.3	985.5	1153.4	1489.1	1740.8	1743.6
110°	236.6	269.4	302.1	310.3	518.9	797.0	936.0	1123.7	1499.0	1780.5	1792.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	262.8	294.1	325.2	333.1	519.0	767.0	891.0	1083.1	1467.2	1755.2	1774.1
115°	302.4	331.3	360.1	367.3	523.9	732.6	837.0	1022.0	1392.0	1669.6	1695.8
117.5°	341.6	367.8	394.0	400.5	533.6	711.2	799.9	966.8	1300.7	1551.2	1580.3
120°	364.3	389.0	413.7	419.8	541.6	703.9	785.1	937.6	1242.7	1471.6	1499.9
122.5°	386.6	411.5	436.3	442.5	553.0	700.1	773.7	911.1	1185.8	1391.8	1419.8
125°	420.7	443.4	466.0	471.7	568.2	696.9	761.3	878.0	1111.4	1286.4	1312.1
127.5°	448.5	471.3	494.2	499.9	583.5	695.1	750.8	851.0	1051.5	1201.8	1223.5
130°	463.3	487.9	512.6	518.7	594.8	696.3	746.9	836.1	1014.5	1148.3	1168.3
132.5°	478.7	503.3	528.0	534.1	603.9	696.9	743.5	823.3	983.1	1102.8	1120.7
135°	501.4	523.9	546.3	551.9	613.8	696.3	737.6	804.5	938.2	1038.5	1054.0
137.5°	524.7	546.8	569.1	574.7	628.6	700.6	736.5	793.0	906.1	990.9	1003.5
140°	544.0	564.4	584.9	590.0	637.7	701.3	733.1	781.9	879.6	952.8	964.7
142.5°	558.8	577.7	596.6	601.4	645.3	703.8	733.1	776.0	861.7	926.1	936.2
145°	581.6	598.1	614.6	618.7	655.1	703.8	728.1	763.2	833.3	886.0	893.8
147.5°	604.4	620.4	636.5	640.5	669.7	708.6	728.1	755.7	811.0	852.4	858.8
150°	619.2	633.7	648.3	651.9	677.3	711.2	728.1	751.4	798.1	833.1	838.2
152.5°	634.6	645.6	656.6	659.4	682.3	712.8	728.1	748.0	787.8	817.7	821.6
155°	657.3	665.5	673.6	675.6	693.1	716.4	728.1	744.0	775.6	799.4	802.0
157.5°	674.2	682.1	689.9	692.0	704.0	720.1	728.1	740.4	765.1	783.5	785.4
160°	685.5	691.7	697.9	699.4	709.0	721.7	728.1	738.6	759.7	775.6	776.7
162.5°	696.9	701.5	706.2	707.3	714.2	723.5	728.1	737.0	754.9	768.2	769.2
165°	709.3	713.5	717.7	718.7	721.9	726.0	728.1	734.5	747.2	756.8	757.8
167.5°	720.7	722.6	724.6	725.1	727.8	731.3	733.1	737.3	745.6	751.9	752.4
170°	728.1	730.1	732.1	732.6	732.8	733.0	733.1	737.3	745.6	751.9	751.9
172.5°	732.1	732.5	733.0	733.1	733.1	733.1	733.1	736.3	742.9	747.9	747.5
175°	737.6	737.6	737.6	737.6	736.0	734.0	733.1	735.2	739.3	742.4	742.4
177.5°	737.6	737.6	737.6	737.6	736.4	734.8	734.0	735.6	739.0	741.5	741.0
180°	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	503.0	503.0
2.5°	537.1	533.8
5°	690.7	694.0
7.5°	930.2	928.6
10°	1156.6	1171.2
12.5°	1321.6	1324.8
15°	1422.0	1428.4
17.5°	1460.8	1462.4
20°	1462.4	1459.1
22.5°	1444.5	1441.4
25°	1423.5	1422.0
27.5°	1404.1	1405.7
30°	1396.0	1400.9
32.5°	1396.0	1404.1
35°	1399.3	1407.3
37.5°	1397.7	1407.3
40°	1391.2	1402.5
42.5°	1373.4	1381.4
45°	1345.9	1355.6
47.5°	1310.3	1316.8
50°	1265.0	1271.5
52.5°	1208.4	1210.0
55°	1140.4	1146.9
57.5°	1067.7	1069.3
60°	986.8	991.7
62.5°	901.0	901.0
65°	810.4	813.7
67.5°	716.6	724.7
70°	621.2	622.8
72.5°	527.3	527.3
75°	430.3	431.9
77.5°	338.0	338.0
80°	250.8	252.4
82.5°	173.1	176.3
85°	108.4	108.4
87.5°	50.2	45.3
90°	18.8	18.8
92.5°	75.3	60.4
95°	262.6	217.3
97.5°	629.2	543.0
100°	906.6	803.8
102.5°	1179.4	1091.5
105°	1527.3	1480.0
107.5°	1755.1	1766.6
110°	1842.0	1891.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1849.8	1925.5
115°	1800.7	1905.7
117.5°	1696.7	1813.1
120°	1612.9	1726.0
122.5°	1531.2	1642.8
125°	1414.8	1517.6
127.5°	1310.1	1396.8
130°	1248.4	1328.6
132.5°	1192.4	1264.1
135°	1115.7	1177.5
137.5°	1054.2	1104.8
140°	1011.9	1059.2
142.5°	976.9	1017.7
145°	924.5	955.3
147.5°	884.2	909.7
150°	859.0	879.6
152.5°	837.2	852.8
155°	812.3	822.6
157.5°	792.6	799.9
160°	780.9	785.1
162.5°	773.2	777.1
165°	762.0	766.2
167.5°	754.1	755.8
170°	751.9	751.9
172.5°	746.0	744.4
175°	742.4	742.4
177.5°	739.3	737.6
180°	737.6	737.6



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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	5.86	6.71	6.85	7.72	9.06	19.00	19.85	19.99	20.86	22.20
	3H	6.56	7.33	7.57	8.35	9.71	20.82	21.59	21.82	22.60	23.96
	4H	6.86	7.59	7.88	8.61	9.98	21.46	22.18	22.47	23.20	24.57
	6H	7.11	7.78	8.14	8.81	10.19	21.87	22.54	22.90	23.57	24.95
	8H	7.18	7.82	8.21	8.86	10.24	21.99	22.62	23.02	23.67	25.04
	12H	7.20	7.80	8.24	8.84	10.24	22.05	22.65	23.09	23.69	25.09
4H	2H	13.05	13.77	14.07	14.79	16.16	19.27	20.00	20.29	21.02	22.39
	3H	14.62	15.22	15.65	16.27	17.66	21.30	21.91	22.33	22.96	24.34
	4H	14.71	15.27	15.75	16.31	17.71	22.06	22.61	23.10	23.66	25.06
	6H	14.72	15.20	15.77	16.27	17.67	22.58	23.06	23.63	24.13	25.53
	8H	14.70	15.15	15.75	16.21	17.62	22.74	23.19	23.79	24.24	25.66
	12H	14.66	15.06	15.72	16.13	17.55	22.82	23.23	23.89	24.30	25.72
8H	4H	16.15	16.59	17.20	17.65	19.07	22.12	22.57	23.17	23.62	25.04
	6H	16.39	16.76	17.46	17.86	19.27	22.73	23.11	23.81	24.20	25.62
	8H	16.41	16.73	17.49	17.81	19.25	22.95	23.27	24.03	24.36	25.79
	12H	16.37	16.66	17.46	17.74	19.21	23.08	23.37	24.17	24.45	25.92
12H	4H	16.29	16.69	17.35	17.76	19.18	22.07	22.48	23.14	23.55	24.97
	6H	16.64	16.97	17.72	18.05	19.48	22.72	23.05	23.80	24.13	25.56
	8H	16.71	17.00	17.80	18.08	19.55	22.94	23.23	24.03	24.31	25.78