

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: P938174

Luminaire Tested: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

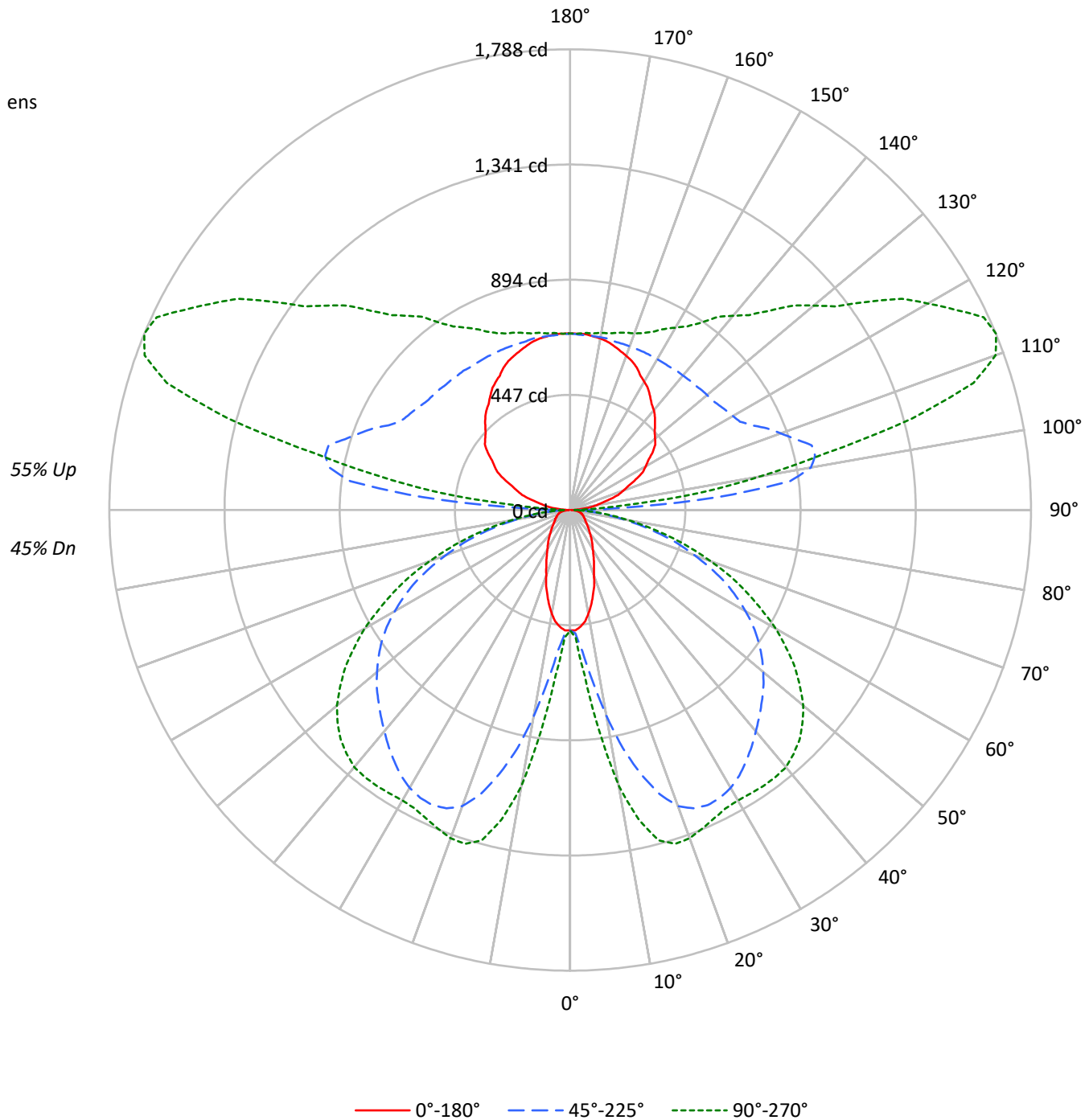
Test Method: LM-79-2019  
Report Number: P938174  
REPORT IS A COMBINATION OF REPORTS P933600 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8058.6 lumens  
Efficiency: N/A  
Efficacy: 107.2 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

TEST NUMBER: P938174  
CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P938174

CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

**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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42	37
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	4336	4336	4336
5°	4232	5008	5828
10°	3834	7295	9663
15°	3255	9523	11668
20°	2647	11028	11892
25°	2205	11532	11650
30°	1857	11596	11628
35°	1639	11394	11928
40°	1426	11134	12239
45°	1289	10941	12287
50°	1180	10766	12083
55°	1126	10513	11548
60°	1149	10038	10702
65°	1190	9321	9540
70°	1259	8113	8059
75°	1381	6597	6290
80°	1474	4560	4238
85°	1242	2405	2170

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12287 cd/sqm



TEST NUMBER: P938174

CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.4	0.8
10°-20°	267.9	3.3
20°-30°	468.6	5.8
30°-40°	603.2	7.5
40°-50°	673.8	8.4
50°-60°	645.3	8.0
60°-70°	511.4	6.3
70°-80°	300.7	3.7
80°-90°	86.2	1.1
90°-100°	333.9	4.1
100°-110°	877.9	10.9
110°-120°	910.3	11.3
120°-130°	730.2	9.1
130°-140°	572.9	7.1
140°-150°	439.7	5.5
150°-160°	316.7	3.9
160°-170°	193.8	2.4
170°-180°	65.5	0.8
0°-30°	797.0	9.9
0°-40°	1400.2	17.4
0°-60°	2719.3	33.7
0°-90°	3617.7	44.9
90°-120°	2122.2	26.3
90°-150°	3865.0	48.0
90°-180°	4441.0	55.1
0°-180°	8058.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	455	488	550	622	645	42
15°	341	630	1061	1286	1327	95
25°	218	714	1264	1319	1321	100
35°	147	682	1190	1258	1307	92
45°	101	544	1052	1205	1259	78
55°	72	346	892	1037	1065	66
65°	57	183	663	745	756	57
75°	42	113	364	400	401	44
85°	15	34	90	99	101	16
90°	5	13	35	18	18	5
95°	44	173	575	297	202	49
105°	158	240	971	1474	1375	168
115°	281	341	777	1551	1770	277
125°	391	438	707	1195	1410	347
135°	466	513	685	965	1094	360
145°	540	575	676	823	887	338
155°	611	628	676	742	764	281
165°	659	668	676	703	712	186
175°	685	685	681	690	690	65
180°	685	685	685	685	685	



TEST NUMBER: P938174

CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3	467.3
2.5°	467.3	467.3	470.3	471.8	474.8	476.3	479.3	482.4	491.3	492.8	495.9
5°	455.3	461.3	480.9	488.3	509.4	538.0	549.9	569.5	610.1	622.0	629.6
7.5°	437.3	450.7	498.9	510.9	563.4	638.6	670.2	712.3	776.8	808.3	833.9
10°	408.7	437.3	522.9	551.4	637.1	751.2	809.9	868.5	966.1	1009.7	1026.3
12.5°	377.1	423.8	548.4	587.5	710.8	877.5	948.1	1012.8	1123.9	1182.5	1191.5
15°	341.1	404.2	572.5	629.6	788.8	982.7	1060.8	1140.5	1244.2	1286.2	1296.7
17.5°	309.6	389.2	595.0	655.2	848.9	1077.3	1157.0	1223.1	1307.2	1335.8	1343.3
20°	270.5	365.1	610.1	688.2	912.1	1146.5	1223.1	1274.2	1331.3	1349.3	1352.3
22.5°	241.9	339.6	619.0	700.2	954.2	1188.5	1253.1	1293.7	1332.8	1338.8	1340.3
25°	217.9	311.1	617.6	713.7	990.2	1214.1	1263.7	1293.7	1316.3	1319.3	1319.3
27.5°	195.4	279.5	611.6	716.7	1017.2	1220.1	1259.2	1280.2	1290.7	1296.7	1296.7
30°	175.8	249.4	596.6	710.8	1029.3	1214.1	1245.6	1256.2	1266.6	1275.7	1280.2
32.5°	160.8	220.8	574.0	698.7	1030.8	1199.1	1221.6	1227.6	1242.7	1263.7	1271.2
35°	147.2	192.3	548.4	682.2	1021.7	1175.0	1190.0	1196.0	1226.1	1257.7	1268.2
37.5°	133.7	171.3	515.4	653.7	1008.2	1146.5	1157.0	1167.5	1214.1	1251.6	1263.7
40°	120.2	153.3	476.3	622.0	987.2	1111.9	1120.9	1137.4	1199.1	1242.7	1254.7
42.5°	109.7	138.3	434.2	589.0	960.1	1072.9	1086.4	1110.4	1181.0	1227.6	1241.2
45°	100.7	123.3	389.2	543.9	925.6	1032.3	1051.8	1084.9	1160.0	1205.1	1217.1
47.5°	91.6	112.7	342.6	497.4	888.0	991.7	1017.2	1054.9	1131.4	1175.0	1185.6
50°	84.2	102.2	296.0	447.7	847.4	948.1	978.2	1017.2	1095.3	1135.9	1149.5
52.5°	78.1	93.2	252.5	398.2	800.9	903.0	937.6	978.2	1051.8	1090.9	1099.9
55°	72.1	85.6	214.9	345.6	752.8	855.0	892.5	931.6	1003.7	1036.7	1042.8
57.5°	69.1	79.7	183.3	296.0	701.7	800.9	843.0	879.0	946.6	972.2	978.2
60°	64.6	75.1	159.3	254.0	646.1	749.8	785.9	821.9	879.0	900.1	904.5
62.5°	60.1	72.1	141.3	213.4	589.0	689.7	725.8	758.8	806.9	821.9	827.9
65°	57.1	69.1	127.7	183.3	530.4	626.6	662.6	691.2	730.3	745.3	748.3
67.5°	54.1	66.2	117.2	157.8	471.8	563.4	590.5	617.6	647.6	662.6	664.1
70°	49.6	63.1	108.2	139.8	411.7	491.3	513.9	542.4	566.5	574.0	578.5
72.5°	46.6	58.6	102.2	126.2	350.1	422.2	443.3	459.8	480.9	488.3	488.3
75°	42.1	52.6	96.2	112.7	287.0	345.6	363.6	380.2	396.7	399.7	395.2
77.5°	37.6	46.6	82.7	94.7	223.9	273.5	288.5	297.5	311.1	314.0	315.5
80°	31.5	40.6	64.6	73.6	162.2	201.3	211.9	219.3	231.4	231.4	234.4
82.5°	24.1	31.5	46.6	52.6	109.7	138.3	147.2	151.8	159.3	159.3	159.3
85°	15.0	19.5	30.0	34.5	66.2	84.2	90.1	91.6	97.7	99.2	99.2
87.5°	7.5	10.5	19.5	21.0	34.5	43.6	43.6	46.6	46.6	45.1	43.6
90°	4.6	8.3	12.0	12.9	20.2	30.0	34.9	31.0	23.3	17.5	17.5
92.5°	18.4	49.6	80.9	88.7	124.8	172.8	196.8	172.4	123.9	87.4	83.9
95°	44.1	101.3	158.6	172.9	307.0	485.7	575.2	513.3	389.5	296.6	286.0
97.5°	76.3	126.7	177.2	189.9	413.5	711.6	860.6	821.5	743.3	684.6	664.6
100°	101.1	147.0	192.7	204.2	452.3	783.0	948.5	951.3	957.1	961.3	937.5
102.5°	122.3	165.0	207.7	218.4	470.0	805.6	973.3	1023.2	1123.0	1197.7	1177.3
105°	158.2	194.4	230.5	239.6	483.2	808.2	970.6	1082.4	1305.9	1473.5	1462.5
107.5°	194.9	228.7	262.4	270.8	485.7	772.2	915.4	1071.4	1383.1	1617.0	1619.6
110°	219.8	250.2	280.6	288.2	482.0	740.3	869.4	1043.8	1392.4	1653.8	1665.3



TEST NUMBER: P938174

CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	244.1	273.1	302.1	309.4	482.1	712.4	827.6	1006.0	1362.8	1630.4	1648.0
115°	280.9	307.7	334.5	341.2	486.6	680.5	777.4	949.3	1293.0	1550.8	1575.1
117.5°	317.3	341.6	365.9	372.0	495.7	660.6	743.0	898.0	1208.2	1440.9	1467.9
120°	338.4	361.3	384.2	389.9	503.1	653.8	729.2	871.0	1154.3	1366.9	1393.2
122.5°	359.1	382.2	405.3	411.1	513.6	650.3	718.7	846.3	1101.5	1292.8	1318.8
125°	390.8	411.9	432.9	438.1	527.8	647.4	707.1	815.5	1032.3	1194.9	1218.8
127.5°	416.6	437.8	459.0	464.3	542.0	645.7	697.4	790.5	976.7	1116.3	1136.5
130°	430.3	453.2	476.1	481.8	552.5	646.7	693.8	776.6	942.3	1066.7	1085.2
132.5°	444.6	467.5	490.4	496.1	560.9	647.4	690.6	764.7	913.1	1024.4	1041.0
135°	465.8	486.6	507.4	512.6	570.1	646.7	685.1	747.3	871.5	964.6	979.0
137.5°	487.3	507.9	528.6	533.8	583.9	650.7	684.1	736.6	841.6	920.4	932.1
140°	505.3	524.3	543.3	548.1	592.4	651.4	680.9	726.3	817.0	885.1	896.1
142.5°	519.0	536.6	554.2	558.6	599.4	653.7	680.9	720.8	800.4	860.2	869.6
145°	540.3	555.5	570.9	574.7	608.5	653.7	676.3	708.9	774.1	823.0	830.2
147.5°	561.4	576.3	591.2	595.0	622.0	658.2	676.3	702.0	753.3	791.7	797.7
150°	575.2	588.7	602.2	605.5	629.1	660.6	676.3	698.0	741.3	773.8	778.6
152.5°	589.5	599.7	609.9	612.5	633.8	662.1	676.3	694.8	731.8	759.5	763.1
155°	610.6	618.1	625.7	627.5	643.8	665.5	676.3	691.0	720.4	742.5	744.9
157.5°	626.2	633.6	640.9	642.7	653.9	668.8	676.3	687.8	710.7	727.8	729.5
160°	636.8	642.5	648.2	649.7	658.5	670.4	676.3	686.1	705.7	720.4	721.4
162.5°	647.4	651.6	656.0	657.0	663.4	672.0	676.3	684.6	701.2	713.6	714.5
165°	658.8	662.7	666.6	667.6	670.5	674.3	676.3	682.3	694.1	702.9	703.9
167.5°	669.5	671.2	673.1	673.5	676.0	679.3	680.9	684.8	692.6	698.4	698.9
170°	676.3	678.2	680.0	680.5	680.7	680.8	680.9	684.8	692.6	698.4	698.4
172.5°	680.0	680.4	680.8	680.9	680.9	680.9	680.9	683.9	690.1	694.7	694.3
175°	685.1	685.1	685.1	685.1	683.7	681.8	680.9	682.9	686.7	689.6	689.6
177.5°	685.1	685.1	685.1	685.1	684.0	682.5	681.8	683.3	686.4	688.7	688.3
180°	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1



TEST NUMBER: P938174

CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	467.3	467.3
2.5°	498.9	495.9
5°	641.6	644.6
7.5°	864.0	862.5
10°	1074.3	1087.9
12.5°	1227.6	1230.6
15°	1320.8	1326.8
17.5°	1356.9	1358.4
20°	1358.4	1355.4
22.5°	1341.8	1338.8
25°	1322.2	1320.8
27.5°	1304.2	1305.7
30°	1296.7	1301.3
32.5°	1296.7	1304.2
35°	1299.8	1307.2
37.5°	1298.3	1307.2
40°	1292.2	1302.7
42.5°	1275.7	1283.2
45°	1250.1	1259.2
47.5°	1217.1	1223.1
50°	1175.0	1181.0
52.5°	1122.4	1123.9
55°	1059.3	1065.3
57.5°	991.7	993.2
60°	916.6	921.1
62.5°	836.9	836.9
65°	752.8	755.8
67.5°	665.6	673.2
70°	577.0	578.5
72.5°	489.8	489.8
75°	399.7	401.2
77.5°	314.0	314.0
80°	232.9	234.4
82.5°	160.8	163.7
85°	100.7	100.7
87.5°	46.6	42.1
90°	17.5	17.5
92.5°	70.0	56.1
95°	243.9	201.8
97.5°	584.5	504.4
100°	842.1	746.6
102.5°	1095.5	1013.8
105°	1418.7	1374.7
107.5°	1630.3	1640.9
110°	1711.0	1756.7





TEST NUMBER: P938174

CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1718.2	1788.5
115°	1672.6	1770.1
117.5°	1576.0	1684.1
120°	1498.1	1603.2
122.5°	1422.3	1525.9
125°	1314.2	1409.6
127.5°	1216.9	1297.5
130°	1159.6	1234.1
132.5°	1107.6	1174.2
135°	1036.4	1093.7
137.5°	979.2	1026.2
140°	939.9	983.9
142.5°	907.4	945.3
145°	858.8	887.4
147.5°	821.3	845.0
150°	797.9	817.0
152.5°	777.6	792.2
155°	754.5	764.1
157.5°	736.2	743.0
160°	725.3	729.2
162.5°	718.2	721.9
165°	707.8	711.7
167.5°	700.5	702.1
170°	698.4	698.4
172.5°	692.9	691.5
175°	689.6	689.6
177.5°	686.7	685.1
180°	685.1	685.1



TEST NUMBER: P938174  
 CATALOG NUMBER: SQ4-FB-125U-125D-940-1D-UNV-STD-W-4

**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	5.60	6.45	6.59	7.46	8.80	18.74	19.59	19.73	20.60	21.94
	3H	6.31	7.07	7.31	8.09	9.45	20.56	21.33	21.57	22.35	23.71
	4H	6.61	7.33	7.62	8.35	9.72	21.20	21.92	22.21	22.95	24.31
	6H	6.86	7.53	7.88	8.55	9.93	21.62	22.29	22.64	23.31	24.69
	8H	6.93	7.56	7.96	8.60	9.98	21.73	22.37	22.76	23.41	24.79
	12H	6.94	7.55	7.98	8.58	9.99	21.79	22.40	22.83	23.43	24.84
4H	2H	12.79	13.52	13.81	14.54	15.91	19.02	19.74	20.04	20.76	22.13
	3H	14.36	14.97	15.39	16.02	17.40	21.05	21.65	22.08	22.70	24.08
	4H	14.46	15.01	15.49	16.05	17.46	21.80	22.36	22.84	23.40	24.80
	6H	14.47	14.95	15.52	16.01	17.41	22.33	22.81	23.38	23.87	25.27
	8H	14.44	14.89	15.49	15.95	17.36	22.48	22.93	23.53	23.99	25.40
	12H	14.40	14.80	15.47	15.88	17.30	22.57	22.97	23.64	24.04	25.47
8H	4H	15.89	16.34	16.94	17.39	18.81	21.86	22.31	22.91	23.37	24.78
	6H	16.13	16.50	17.20	17.60	19.01	22.48	22.85	23.55	23.95	25.36
	8H	16.15	16.48	17.23	17.56	18.99	22.69	23.02	23.77	24.10	25.53
	12H	16.12	16.40	17.20	17.48	18.95	22.83	23.11	23.91	24.19	25.66
12H	4H	16.03	16.43	17.10	17.51	18.93	21.81	22.22	22.88	23.29	24.71
	6H	16.39	16.71	17.47	17.80	19.23	22.46	22.79	23.54	23.87	25.30
	8H	16.45	16.74	17.54	17.82	19.29	22.68	22.97	23.77	24.05	25.52