

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: P937782

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937782
REPORT IS A COMBINATION OF REPORTS P933568 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

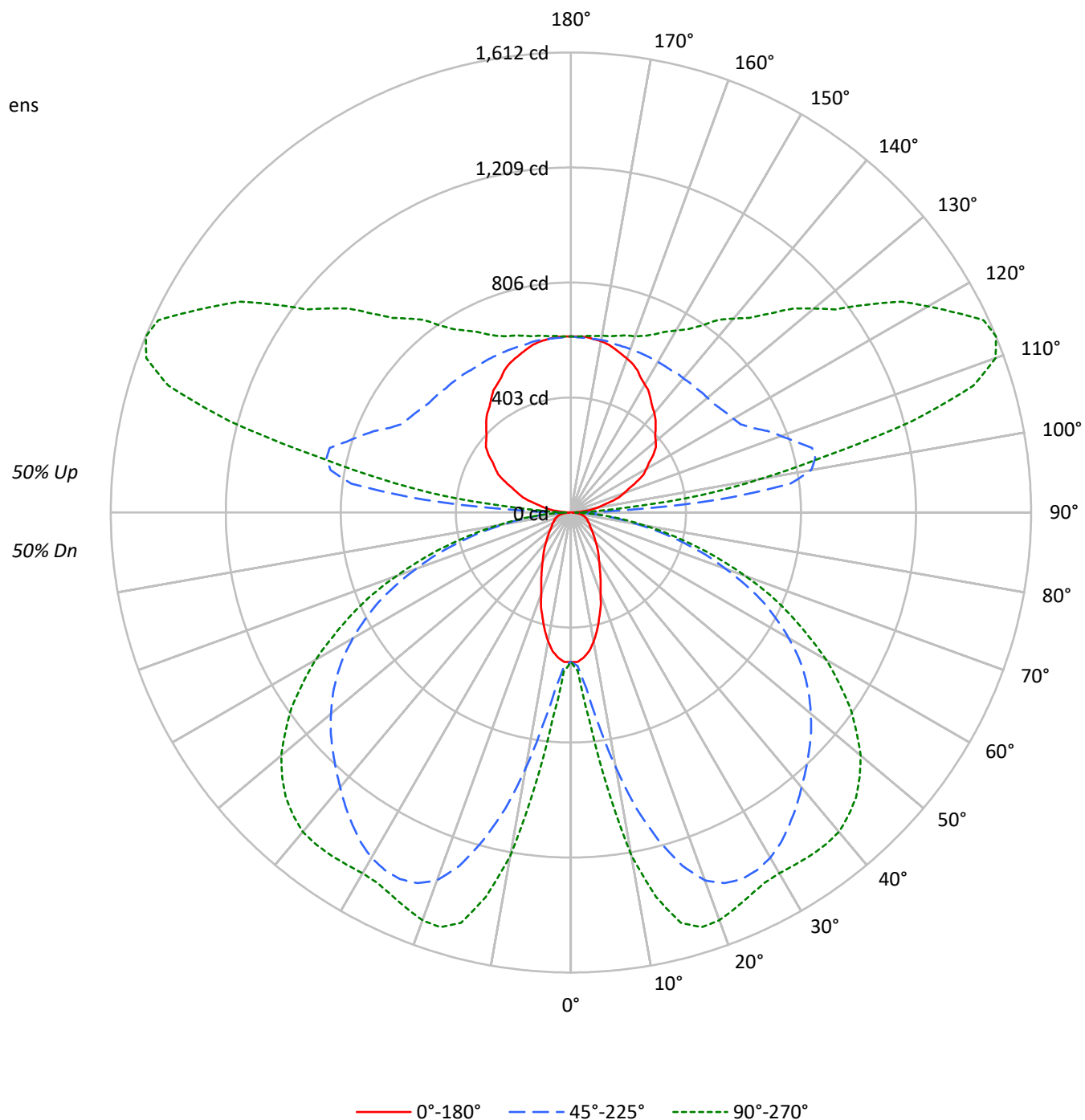
Lumens per Lamp: N/A
Luminaire Lumens: 8058.6 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 68.8
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

TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4863	4863	4863
5°	4746	5617	6537
10°	4300	8182	10838
15°	3651	10681	13086
20°	2969	12370	13338
25°	2473	12935	13067
30°	2083	13006	13042
35°	1838	12779	13379
40°	1600	12489	13727
45°	1445	12273	13781
50°	1323	12076	13553
55°	1264	11792	12952
60°	1290	11259	12005
65°	1334	10455	10700
70°	1412	9100	9040
75°	1548	7401	7055
80°	1657	5113	4753
85°	1391	2698	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13781 cd/sqm

TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	0.8
10°-20°	300.5	3.7
20°-30°	525.6	6.5
30°-40°	676.6	8.4
40°-50°	755.7	9.4
50°-60°	723.8	9.0
60°-70°	573.6	7.1
70°-80°	337.3	4.2
80°-90°	96.1	1.2
90°-100°	300.9	3.7
100°-110°	791.1	9.8
110°-120°	820.2	10.2
120°-130°	657.9	8.2
130°-140°	516.2	6.4
140°-150°	396.2	4.9
150°-160°	285.4	3.5
160°-170°	174.6	2.2
170°-180°	59.0	0.7
0°-30°	893.9	11.1
0°-40°	1570.5	19.5
0°-60°	3050.1	37.8
0°-90°	4057.1	50.3
90°-120°	1912.2	23.7
90°-150°	3482.6	43.2
90°-180°	4002.0	49.7
0°-180°	8058.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	511	548	617	698	723	47
15°	383	706	1190	1443	1488	106
25°	244	800	1417	1480	1482	113
35°	165	765	1335	1411	1466	103
45°	113	610	1180	1352	1412	87
55°	81	388	1001	1163	1195	74
65°	64	206	743	836	848	63
75°	47	126	408	448	450	49
85°	17	39	101	111	113	18
90°	4	12	32	16	16	5
95°	40	156	518	267	182	44
105°	142	216	875	1328	1239	151
115°	253	307	701	1397	1595	250
125°	352	395	637	1077	1270	313
135°	420	462	617	869	986	325
145°	487	518	610	742	800	305
155°	550	566	610	669	688	253
165°	594	602	610	634	641	168
175°	617	617	614	621	621	59
180°	617	617	617	617	617	

TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1
2.5°	524.1	524.1	527.5	529.2	532.6	534.3	537.6	541.0	551.1	552.8	556.2
5°	510.6	517.4	539.3	547.7	571.3	603.4	616.8	638.7	684.3	697.7	706.2
7.5°	490.4	505.6	559.6	573.0	632.0	716.2	751.7	798.9	871.3	906.7	935.3
10°	458.4	490.4	586.4	618.5	714.5	842.6	908.4	974.1	1083.6	1132.6	1151.1
12.5°	423.0	475.3	615.1	659.0	797.2	984.2	1063.4	1135.9	1260.6	1326.4	1336.4
15°	382.6	453.4	642.1	706.2	884.7	1102.2	1189.8	1279.2	1395.5	1442.6	1454.5
17.5°	347.2	436.5	667.4	734.8	952.2	1208.3	1297.7	1371.9	1466.2	1498.3	1506.6
20°	303.4	409.6	684.3	771.9	1023.0	1285.9	1371.9	1429.2	1493.2	1513.4	1516.8
22.5°	271.3	380.9	694.3	785.3	1070.2	1333.0	1405.6	1451.1	1494.9	1501.7	1503.3
25°	244.4	348.9	692.7	800.5	1110.6	1361.7	1417.4	1451.1	1476.4	1479.8	1479.8
27.5°	219.1	313.4	685.9	803.9	1140.9	1368.5	1412.3	1435.9	1447.7	1454.5	1454.5
30°	197.2	279.8	669.1	797.2	1154.5	1361.7	1397.1	1408.9	1420.7	1430.9	1435.9
32.5°	180.4	247.7	643.8	783.7	1156.2	1344.9	1370.2	1376.9	1393.8	1417.4	1425.8
35°	165.1	215.7	615.1	765.1	1146.0	1317.9	1334.7	1341.5	1375.2	1410.6	1422.4
37.5°	150.0	192.1	578.1	733.2	1130.9	1285.9	1297.7	1309.5	1361.7	1403.9	1417.4
40°	134.9	171.9	534.3	697.7	1107.3	1247.1	1257.3	1275.8	1344.9	1393.8	1407.2
42.5°	123.0	155.1	487.0	660.6	1076.9	1203.4	1218.5	1245.5	1324.7	1376.9	1392.1
45°	112.9	138.2	436.5	610.0	1038.1	1157.8	1179.8	1216.8	1301.1	1351.7	1365.1
47.5°	102.8	126.4	384.3	557.9	996.0	1112.3	1140.9	1183.1	1269.0	1317.9	1329.8
50°	94.4	114.6	332.0	502.2	950.5	1063.4	1097.2	1140.9	1228.6	1274.1	1289.3
52.5°	87.6	104.5	283.2	446.6	898.3	1012.8	1051.7	1097.2	1179.8	1223.6	1233.6
55°	80.9	96.0	241.0	387.6	844.3	958.9	1001.1	1044.9	1125.8	1162.8	1169.6
57.5°	77.5	89.3	205.6	332.0	787.0	898.3	945.5	985.9	1061.7	1090.4	1097.2
60°	72.5	84.3	178.7	284.9	724.7	841.0	881.5	921.9	985.9	1009.5	1014.5
62.5°	67.4	80.9	158.5	239.3	660.6	773.6	814.0	851.1	905.1	921.9	928.6
65°	64.0	77.5	143.2	205.6	594.9	702.8	743.2	775.3	819.1	835.9	839.3
67.5°	60.7	74.2	131.5	177.0	529.2	632.0	662.3	692.7	726.4	743.2	744.9
70°	55.6	70.8	121.3	156.8	461.7	551.1	576.4	608.4	635.3	643.8	648.9
72.5°	52.3	65.7	114.6	141.5	392.7	473.6	497.2	515.7	539.3	547.7	547.7
75°	47.2	59.0	107.9	126.4	321.9	387.6	407.9	426.4	444.9	448.3	443.2
77.5°	42.1	52.3	92.7	106.2	251.1	306.8	323.6	333.7	348.9	352.2	353.9
80°	35.4	45.5	72.5	82.6	182.0	225.8	237.6	246.0	259.6	259.6	262.9
82.5°	27.0	35.4	52.3	59.0	123.0	155.1	165.1	170.2	178.7	178.7	178.7
85°	16.8	21.9	33.7	38.7	74.2	94.4	101.1	102.8	109.6	111.3	111.3
87.5°	8.5	11.8	21.9	23.6	38.7	48.9	48.9	52.3	52.3	50.6	48.9
90°	4.2	7.5	10.8	11.6	18.2	27.1	31.5	28.0	21.0	15.7	15.7
92.5°	16.5	44.7	72.9	80.0	112.4	155.7	177.3	155.4	111.6	78.7	75.6
95°	39.7	91.3	142.9	155.8	276.6	437.6	518.2	462.4	350.9	267.2	257.8
97.5°	68.7	114.2	159.8	171.1	372.6	641.2	775.5	740.2	669.7	616.8	598.8
100°	91.1	132.4	173.6	184.0	407.6	705.7	854.7	857.3	862.3	866.2	844.7
102.5°	110.2	148.7	187.1	196.8	423.6	725.9	877.1	922.0	1011.8	1079.2	1060.7
105°	142.5	175.1	207.7	215.8	435.5	728.2	874.6	975.3	1176.7	1327.8	1317.9
107.5°	175.7	206.1	236.5	244.0	437.6	695.7	824.8	965.3	1246.3	1457.0	1459.4
110°	198.0	225.5	252.9	259.8	434.3	667.0	783.4	940.4	1254.6	1490.1	1500.5

TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	220.0	246.1	272.2	278.8	434.5	641.9	745.7	906.5	1227.9	1469.0	1484.8
115°	253.1	277.2	301.3	307.4	438.4	613.2	700.6	855.5	1165.1	1397.4	1419.3
117.5°	285.9	307.8	329.7	335.2	446.6	595.2	669.5	809.2	1088.7	1298.4	1322.7
120°	304.9	325.5	346.1	351.3	453.2	589.1	657.1	784.7	1040.1	1231.7	1255.4
122.5°	323.6	344.4	365.2	370.4	462.7	585.9	647.5	762.4	992.4	1164.9	1188.2
125°	352.2	371.1	390.0	394.8	475.6	583.3	637.1	734.8	930.2	1076.7	1098.2
127.5°	375.3	394.4	413.6	418.4	488.4	581.8	628.5	712.3	880.1	1005.9	1024.0
130°	387.7	408.4	429.0	434.2	497.8	582.8	625.2	699.9	849.2	961.1	977.9
132.5°	400.6	421.2	441.8	447.0	505.4	583.3	622.2	689.0	822.7	923.0	938.0
135°	419.7	438.4	457.3	461.9	513.7	582.8	617.3	673.3	785.1	869.1	882.1
137.5°	439.1	457.8	476.3	481.0	526.1	586.3	616.4	663.7	758.4	829.4	839.9
140°	455.3	472.4	489.5	493.8	533.8	586.9	613.5	654.4	736.1	797.5	807.4
142.5°	467.7	483.6	499.4	503.4	540.1	589.0	613.5	649.4	721.2	775.1	783.7
145°	486.7	500.6	514.3	517.8	548.4	589.1	609.5	638.8	697.5	741.5	748.0
147.5°	505.9	519.3	532.7	536.0	560.5	593.1	609.5	632.6	678.8	713.4	718.8
150°	518.2	530.4	542.5	545.6	566.9	595.3	609.5	629.0	667.9	697.2	701.5
152.5°	531.1	540.2	549.5	551.8	571.0	596.6	609.5	626.1	659.4	684.4	687.6
155°	550.2	557.0	563.8	565.5	580.2	599.7	609.5	622.7	649.2	669.0	671.2
157.5°	564.2	570.9	577.5	579.2	589.2	602.7	609.5	619.7	640.3	655.8	657.3
160°	573.8	579.0	584.1	585.3	593.4	604.1	609.5	618.3	635.9	649.2	650.1
162.5°	583.3	587.1	591.0	592.0	597.8	605.6	609.5	616.9	631.8	642.9	643.7
165°	593.6	597.1	600.6	601.5	604.2	607.7	609.5	614.8	625.5	633.5	634.4
167.5°	603.2	604.9	606.6	607.0	609.2	612.0	613.5	617.0	624.0	629.3	629.7
170°	609.5	611.0	612.7	613.1	613.2	613.4	613.5	617.0	624.0	629.3	629.3
172.5°	612.7	613.1	613.4	613.5	613.5	613.5	613.5	616.3	621.8	626.0	625.7
175°	617.3	617.3	617.3	617.3	616.0	614.3	613.5	615.3	618.8	621.4	621.4
177.5°	617.3	617.3	617.3	617.3	616.3	615.0	614.3	615.7	618.5	620.6	620.2
180°	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3

TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	524.1	524.1
2.5°	559.6	556.2
5°	719.6	723.0
7.5°	969.1	967.4
10°	1205.0	1220.2
12.5°	1376.9	1380.3
15°	1481.5	1488.1
17.5°	1521.9	1523.6
20°	1523.6	1520.2
22.5°	1505.0	1501.7
25°	1483.0	1481.5
27.5°	1462.8	1464.5
30°	1454.5	1459.5
32.5°	1454.5	1462.8
35°	1457.8	1466.2
37.5°	1456.2	1466.2
40°	1449.4	1461.1
42.5°	1430.9	1439.2
45°	1402.2	1412.3
47.5°	1365.1	1371.9
50°	1317.9	1324.7
52.5°	1258.9	1260.6
55°	1188.1	1194.9
57.5°	1112.3	1114.0
60°	1028.1	1033.2
62.5°	938.7	938.7
65°	844.3	847.7
67.5°	746.6	755.1
70°	647.2	648.9
72.5°	549.4	549.4
75°	448.3	450.0
77.5°	352.2	352.2
80°	261.3	262.9
82.5°	180.4	183.7
85°	112.9	112.9
87.5°	52.3	47.2
90°	15.7	15.7
92.5°	63.0	50.5
95°	219.8	181.9
97.5°	526.6	454.5
100°	758.8	672.8
102.5°	987.1	913.5
105°	1278.3	1238.7
107.5°	1469.0	1478.6
110°	1541.7	1582.9

TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1548.2	1611.5
115°	1507.1	1595.0
117.5°	1420.1	1517.5
120°	1350.0	1444.6
122.5°	1281.7	1375.0
125°	1184.1	1270.2
127.5°	1096.6	1169.1
130°	1044.9	1111.9
132.5°	998.0	1058.1
135°	933.8	985.5
137.5°	882.4	924.7
140°	847.0	886.5
142.5°	817.7	851.8
145°	773.8	799.6
147.5°	740.1	761.4
150°	718.8	736.1
152.5°	700.7	713.8
155°	679.9	688.5
157.5°	663.4	669.5
160°	653.6	657.1
162.5°	647.1	650.4
165°	637.8	641.3
167.5°	631.1	632.6
170°	629.3	629.3
172.5°	624.4	623.1
175°	621.4	621.4
177.5°	618.8	617.3
180°	617.3	617.3

TEST NUMBER: P937782

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-4-2700K

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	6.52	7.42	7.46	8.39	9.65	19.66	20.56	20.60	21.53	22.79
	3H	7.23	8.04	8.19	9.02	10.30	21.48	22.30	22.44	23.27	24.56
	4H	7.53	8.30	8.50	9.28	10.57	22.12	22.89	23.09	23.87	25.17
	6H	7.78	8.49	8.76	9.48	10.79	22.54	23.25	23.52	24.24	25.55
	8H	7.85	8.53	8.84	9.53	10.84	22.66	23.33	23.65	24.34	25.64
	12H	7.87	8.51	8.87	9.51	10.84	22.72	23.36	23.72	24.36	25.69
4H	2H	13.71	14.48	14.69	15.46	16.76	19.94	20.71	20.92	21.69	22.98
	3H	15.29	15.93	16.27	16.94	18.25	21.97	22.62	22.96	23.63	24.94
	4H	15.38	15.97	16.38	16.98	18.31	22.73	23.32	23.73	24.32	25.66
	6H	15.40	15.91	16.41	16.94	18.26	23.26	23.77	24.27	24.80	26.13
	8H	15.38	15.85	16.39	16.87	18.22	23.42	23.89	24.43	24.91	26.26
	12H	15.34	15.77	16.36	16.80	18.15	23.50	23.94	24.53	24.97	26.32
8H	4H	16.82	17.30	17.83	18.32	19.66	22.80	23.27	23.81	24.29	25.64
	6H	17.07	17.46	18.10	18.52	19.87	23.41	23.81	24.45	24.87	26.21
	8H	17.09	17.43	18.13	18.48	19.84	23.63	23.98	24.67	25.02	26.38
	12H	17.06	17.36	18.10	18.41	19.81	23.77	24.07	24.81	25.11	26.52
12H	4H	16.97	17.40	17.99	18.43	19.78	22.75	23.18	23.78	24.22	25.57
	6H	17.32	17.67	18.37	18.72	20.08	23.40	23.75	24.44	24.79	26.16
	8H	17.39	17.70	18.44	18.74	20.15	23.62	23.93	24.67	24.97	26.38