

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: P936653

Luminaire Tested: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936653
REPORT IS A COMBINATION OF REPORTS P933461 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-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

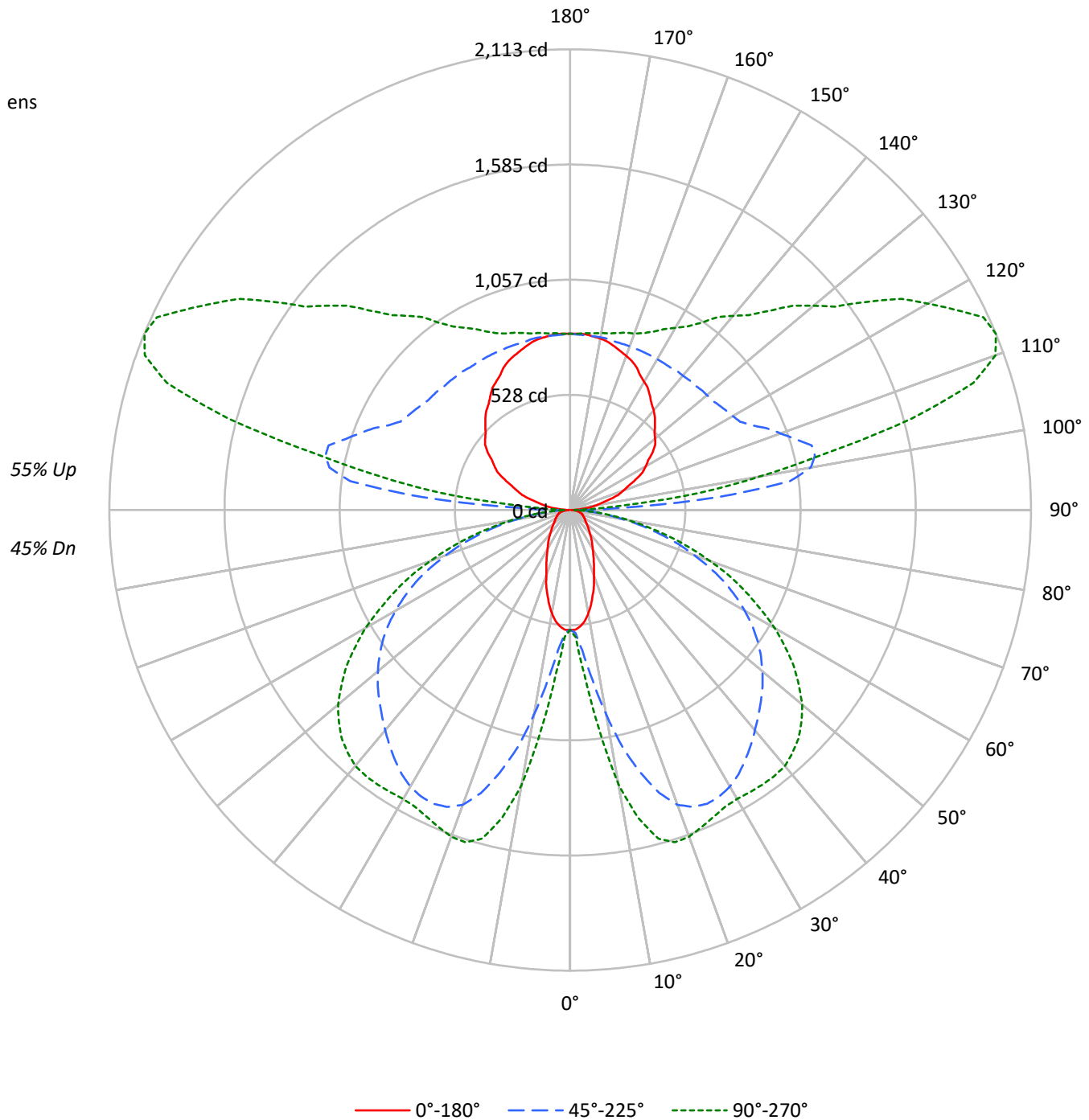
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9500.6 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: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 85.2
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	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	43	42	37
2	87	79	73	68	79	73	67	63	60	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	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	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°	1700	1700	1700
5°	1661	1965	2285
10°	1508	2865	3788
15°	1282	3745	4574
20°	1044	4341	4662
25°	871	4543	4567
30°	735	4573	4558
35°	650	4499	4677
40°	567	4401	4798
45°	514	4330	4817
50°	472	4266	4737
55°	452	4173	4527
60°	463	3991	4196
65°	483	3715	3740
70°	515	3242	3160
75°	573	2645	2465
80°	633	1837	1662
85°	574	976	850

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°	71.1	0.7
10°-20°	315.1	3.3
20°-30°	551.2	5.8
30°-40°	709.5	7.5
40°-50°	792.5	8.3
50°-60°	759.0	8.0
60°-70°	601.5	6.3
70°-80°	353.7	3.7
80°-90°	101.4	1.1
90°-100°	394.4	4.2
100°-110°	1037.0	10.9
110°-120°	1075.3	11.3
120°-130°	862.5	9.1
130°-140°	676.7	7.1
140°-150°	519.4	5.5
150°-160°	374.1	3.9
160°-170°	228.9	2.4
170°-180°	77.3	0.8
0°-30°	937.4	9.9
0°-40°	1646.9	17.3
0°-60°	3198.4	33.7
0°-90°	4255.0	44.8
90°-120°	2506.7	26.4
90°-150°	4565.3	48.1
90°-180°	5246.0	55.2
0°-180°	9500.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	536	574	647	732	758	49
15°	401	740	1248	1513	1560	112
25°	256	840	1486	1552	1554	118
35°	173	802	1400	1479	1538	108
45°	118	640	1237	1417	1481	92
55°	85	406	1050	1219	1253	77
65°	67	216	779	876	889	67
75°	49	132	428	470	472	52
85°	18	41	106	117	118	19
90°	5	15	41	21	21	6
95°	52	204	679	350	238	58
105°	187	283	1146	1740	1624	198
115°	332	403	918	1832	2091	328
125°	462	518	835	1411	1665	410
135°	550	606	809	1139	1292	426
145°	638	679	799	972	1048	400
155°	721	741	799	877	903	331
165°	778	788	799	830	841	220
175°	809	809	804	815	815	77
180°	809	809	809	809	809	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	549.6	549.6	553.2	554.9	558.4	560.2	563.8	567.3	577.9	579.7	583.2
5°	535.5	542.5	565.5	574.3	599.1	632.6	646.8	669.8	717.5	731.6	740.5
7.5°	514.2	530.1	586.7	600.8	662.8	751.1	788.2	837.7	913.7	950.8	980.8
10°	480.7	514.2	615.0	648.6	749.3	883.7	952.5	1021.5	1136.3	1187.6	1207.0
12.5°	443.5	498.3	645.0	691.0	835.9	1032.1	1115.2	1191.2	1321.9	1390.9	1401.4
15°	401.2	475.4	673.3	740.5	927.8	1155.8	1247.7	1341.3	1463.3	1512.8	1525.2
17.5°	364.1	457.7	699.8	770.5	998.5	1267.1	1360.8	1438.6	1537.6	1571.1	1580.0
20°	318.1	429.5	717.5	809.4	1072.8	1348.5	1438.6	1498.6	1565.8	1587.0	1590.5
22.5°	284.6	399.4	728.1	823.6	1122.2	1397.9	1473.9	1521.7	1567.6	1574.6	1576.4
25°	256.3	365.8	726.4	839.5	1164.6	1427.9	1486.3	1521.7	1548.1	1551.7	1551.7
27.5°	229.8	328.7	719.2	843.0	1196.4	1435.1	1481.0	1505.7	1518.1	1525.2	1525.2
30°	206.8	293.4	701.6	835.9	1210.6	1427.9	1465.1	1477.5	1489.8	1500.4	1505.7
32.5°	189.1	259.8	675.1	821.7	1212.3	1410.3	1436.8	1443.8	1461.5	1486.3	1495.1
35°	173.2	226.3	645.0	802.3	1201.8	1382.0	1399.7	1406.8	1442.1	1479.2	1491.5
37.5°	157.3	201.5	606.2	768.8	1185.8	1348.5	1360.8	1373.1	1427.9	1472.1	1486.3
40°	141.4	180.2	560.2	731.6	1161.1	1307.8	1318.4	1337.8	1410.3	1461.5	1475.6
42.5°	129.0	162.6	510.7	692.8	1129.3	1261.9	1277.8	1306.0	1389.0	1443.8	1459.7
45°	118.4	144.9	457.7	639.8	1088.7	1214.1	1237.1	1276.0	1364.4	1417.3	1431.5
47.5°	107.8	132.5	403.0	584.9	1044.5	1166.4	1196.4	1240.6	1330.7	1382.0	1394.4
50°	99.0	120.2	348.2	526.6	996.7	1115.2	1150.5	1196.4	1288.4	1336.1	1352.0
52.5°	91.9	109.6	296.9	468.3	942.0	1062.1	1102.8	1150.5	1237.1	1283.0	1293.6
55°	84.8	100.7	252.7	406.5	885.4	1005.6	1049.7	1095.7	1180.5	1219.4	1226.5
57.5°	81.3	93.6	215.6	348.2	825.3	942.0	991.4	1033.8	1113.3	1143.5	1150.5
60°	76.0	88.4	187.3	298.7	759.9	881.9	924.3	966.7	1033.8	1058.6	1063.9
62.5°	70.7	84.8	166.1	250.9	692.8	811.2	853.6	892.4	949.0	966.7	973.8
65°	67.2	81.3	150.2	215.6	623.9	737.0	779.4	813.0	858.9	876.5	880.1
67.5°	63.6	77.7	137.8	185.6	554.9	662.8	694.6	726.4	761.7	779.4	781.2
70°	58.3	74.2	127.3	164.3	484.2	577.9	604.4	638.0	666.3	675.1	680.4
72.5°	54.8	68.9	120.2	148.4	411.7	496.6	521.4	540.8	565.5	574.3	574.3
75°	49.4	61.8	113.1	132.5	337.5	406.5	427.6	447.1	466.6	470.1	464.8
77.5°	44.2	54.8	97.2	111.4	263.3	321.6	339.3	349.9	365.8	369.3	371.1
80°	37.2	47.7	76.0	86.6	190.9	236.8	249.2	258.0	272.2	272.2	275.7
82.5°	28.3	37.2	54.8	61.8	129.0	162.6	173.2	178.5	187.3	187.3	187.3
85°	17.7	23.0	35.3	40.7	77.7	99.0	106.0	107.8	114.9	116.6	116.6
87.5°	8.9	12.4	23.0	24.8	40.7	51.3	51.3	54.8	54.8	53.0	51.3
90°	5.4	9.7	14.1	15.2	23.9	35.5	41.3	36.7	27.5	20.6	20.6
92.5°	21.7	58.6	95.6	104.8	147.3	204.0	232.4	203.7	146.2	103.2	99.1
95°	52.2	119.7	187.3	204.2	362.6	573.8	679.4	606.2	460.0	350.3	337.8
97.5°	90.1	149.8	209.4	224.3	488.4	840.5	1016.6	970.4	877.9	808.7	785.0
100°	119.4	173.6	227.6	241.1	534.2	924.9	1120.4	1123.7	1130.5	1135.6	1107.4
102.5°	144.5	194.9	245.3	258.0	555.2	951.6	1149.7	1208.5	1326.3	1414.7	1390.5
105°	186.8	229.5	272.2	282.9	570.7	954.5	1146.4	1278.5	1542.5	1740.5	1727.5
107.5°	230.3	270.1	310.0	319.9	573.7	912.1	1081.3	1265.5	1633.8	1910.0	1913.2
110°	259.6	295.5	331.6	340.5	569.3	874.4	1027.0	1232.9	1644.6	1953.4	1967.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	288.3	322.6	356.9	365.5	569.5	841.5	977.5	1188.3	1609.7	1925.8	1946.5
115°	331.8	363.4	395.1	403.0	574.8	803.8	918.4	1121.3	1527.3	1831.8	1860.6
117.5°	374.7	403.4	432.1	439.3	585.4	780.2	877.6	1060.8	1427.2	1702.0	1733.9
120°	399.7	426.8	453.7	460.5	594.1	772.3	861.3	1028.8	1363.5	1614.6	1645.6
122.5°	424.1	451.4	478.7	485.5	606.6	768.1	848.8	999.5	1301.0	1527.1	1557.7
125°	461.6	486.5	511.3	517.6	623.5	764.6	835.3	963.3	1219.3	1411.4	1439.6
127.5°	492.0	517.1	542.3	548.5	640.3	762.6	823.8	933.8	1153.6	1318.6	1342.4
130°	508.4	535.4	562.4	569.1	652.6	763.9	819.5	917.4	1113.2	1259.9	1281.9
132.5°	525.1	552.2	579.2	586.0	662.6	764.6	815.7	903.3	1078.6	1209.9	1229.6
135°	550.2	574.8	599.4	605.5	673.4	763.9	809.2	882.6	1029.4	1139.4	1156.4
137.5°	575.6	600.1	624.5	630.5	689.7	768.7	808.1	870.1	994.2	1087.2	1101.1
140°	596.8	619.3	641.7	647.3	699.7	769.4	804.3	857.8	965.1	1045.4	1058.4
142.5°	613.1	633.9	654.7	659.9	708.0	772.2	804.3	851.3	945.5	1016.1	1027.3
145°	638.1	656.2	674.3	678.8	718.9	772.2	798.9	837.4	914.4	972.1	980.5
147.5°	663.1	680.7	698.3	702.7	734.8	777.6	798.9	829.2	889.8	935.2	942.2
150°	679.4	695.3	711.2	715.2	743.1	780.3	798.9	824.5	875.6	914.0	919.7
152.5°	696.2	708.3	720.4	723.4	748.6	782.1	798.9	820.8	864.4	897.2	901.5
155°	721.2	730.1	739.1	741.3	760.5	786.1	798.9	816.3	851.0	877.1	879.9
157.5°	739.7	748.4	757.0	759.2	772.5	790.1	798.9	812.4	839.4	859.7	861.7
160°	752.2	758.9	765.7	767.4	777.9	791.9	798.9	810.5	833.6	851.0	852.1
162.5°	764.6	769.7	774.8	776.1	783.7	793.8	798.9	808.7	828.2	842.8	843.9
165°	778.3	782.8	787.4	788.5	792.0	796.6	798.9	805.9	819.9	830.3	831.5
167.5°	790.7	792.8	795.0	795.6	798.5	802.3	804.3	808.8	818.0	824.9	825.4
170°	798.9	801.0	803.2	803.7	803.9	804.2	804.3	808.8	818.0	824.9	824.9
172.5°	803.2	803.6	804.2	804.3	804.3	804.3	804.3	807.9	815.2	820.6	820.2
175°	809.2	809.2	809.2	809.2	807.5	805.3	804.3	806.5	811.2	814.6	814.6
177.5°	809.2	809.2	809.2	809.2	807.9	806.3	805.4	807.2	810.8	813.6	813.0
180°	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	549.6	549.6
2.5°	586.7	583.2
5°	754.6	758.1
7.5°	1016.2	1014.4
10°	1263.6	1279.5
12.5°	1443.8	1447.4
15°	1553.5	1560.5
17.5°	1595.9	1597.6
20°	1597.6	1594.1
22.5°	1578.1	1574.6
25°	1555.2	1553.5
27.5°	1534.0	1535.8
30°	1525.2	1530.4
32.5°	1525.2	1534.0
35°	1528.7	1537.6
37.5°	1526.9	1537.6
40°	1519.8	1532.2
42.5°	1500.4	1509.3
45°	1470.4	1481.0
47.5°	1431.5	1438.6
50°	1382.0	1389.0
52.5°	1320.2	1321.9
55°	1246.0	1253.0
57.5°	1166.4	1168.1
60°	1078.0	1083.3
62.5°	984.4	984.4
65°	885.4	888.9
67.5°	782.9	791.7
70°	678.7	680.4
72.5°	576.2	576.2
75°	470.1	471.8
77.5°	369.3	369.3
80°	273.9	275.7
82.5°	189.1	192.6
85°	118.4	118.4
87.5°	54.8	49.4
90°	20.6	20.6
92.5°	82.6	66.2
95°	288.1	238.4
97.5°	690.3	595.8
100°	994.7	882.0
102.5°	1294.0	1197.5
105°	1675.7	1623.8
107.5°	1925.7	1938.2
110°	2021.0	2075.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2029.6	2112.6
115°	1975.7	2090.9
117.5°	1861.6	1989.3
120°	1769.7	1893.7
122.5°	1680.1	1802.4
125°	1552.3	1665.1
127.5°	1437.4	1532.5
130°	1369.8	1457.6
132.5°	1308.3	1387.0
135°	1224.2	1292.0
137.5°	1156.6	1212.1
140°	1110.3	1162.2
142.5°	1072.0	1116.6
145°	1014.3	1048.2
147.5°	970.2	998.2
150°	942.3	965.1
152.5°	918.6	935.7
155°	891.3	902.6
157.5°	869.6	877.6
160°	856.8	861.3
162.5°	848.3	852.7
165°	836.1	840.7
167.5°	827.4	829.3
170°	824.9	824.9
172.5°	818.5	816.8
175°	814.6	814.6
177.5°	811.1	809.2
180°	809.2	809.2



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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	2.36	3.21	3.35	4.22	5.56	15.55	16.40	16.54	17.41	18.75
	3H	3.06	3.82	4.06	4.84	6.20	17.39	18.16	18.40	19.18	20.54
	4H	3.36	4.08	4.37	5.10	6.47	18.04	18.77	19.06	19.79	21.16
	6H	3.61	4.28	4.64	5.30	6.68	18.48	19.14	19.50	20.17	21.55
	8H	3.68	4.31	4.71	5.36	6.73	18.60	19.24	19.63	20.28	21.66
	12H	3.69	4.30	4.73	5.34	6.74	18.67	19.27	19.71	20.31	21.71
4H	2H	9.58	10.30	10.60	11.33	12.70	15.82	16.55	16.85	17.57	18.94
	3H	11.15	11.75	12.18	12.80	14.18	17.87	18.48	18.90	19.53	20.91
	4H	11.24	11.80	12.28	12.84	14.24	18.64	19.20	19.68	20.24	21.64
	6H	11.25	11.73	12.30	12.79	14.19	19.19	19.66	20.23	20.73	22.13
	8H	11.23	11.67	12.28	12.73	14.15	19.35	19.80	20.40	20.86	22.27
	12H	11.18	11.59	12.25	12.66	14.08	19.45	19.85	20.51	20.92	22.34
8H	4H	12.69	13.13	13.74	14.19	15.61	18.70	19.15	19.75	20.21	21.62
	6H	12.93	13.30	14.00	14.40	15.81	19.33	19.71	20.41	20.80	22.22
	8H	12.95	13.27	14.03	14.36	15.79	19.56	19.88	20.64	20.97	22.40
	12H	12.91	13.20	14.00	14.28	15.75	19.70	19.99	20.79	21.07	22.54
12H	4H	12.83	13.24	13.90	14.31	15.73	18.65	19.06	19.72	20.13	21.55
	6H	13.19	13.52	14.27	14.60	16.03	19.32	19.64	20.40	20.73	22.16
	8H	13.26	13.54	14.34	14.62	16.10	19.55	19.84	20.64	20.92	22.39