

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: P937640

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937640
REPORT IS A COMBINATION OF REPORTS P933575 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

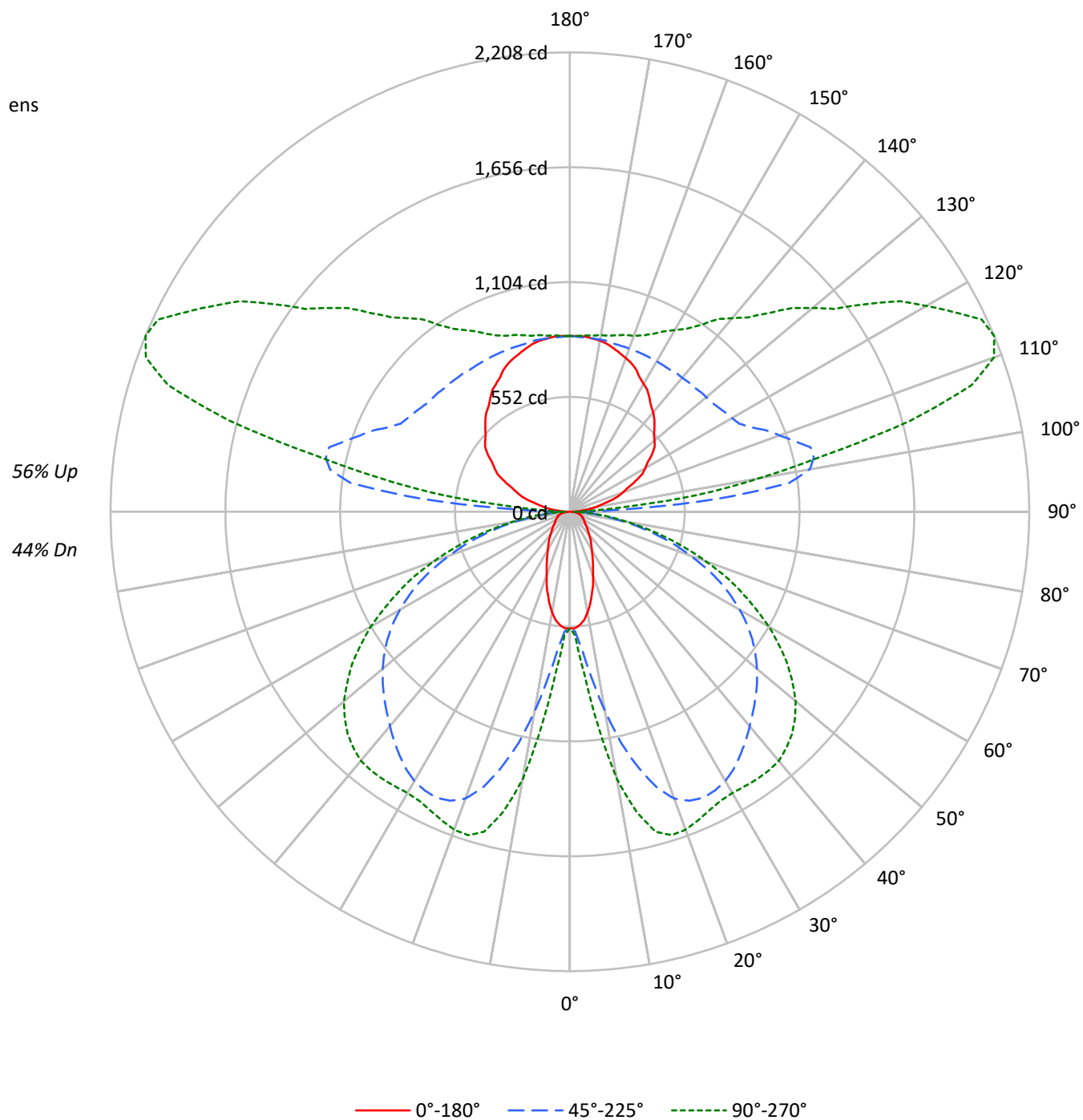
Lumens per Lamp: N/A
Luminaire Lumens: 9822.3 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 87
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: P937640

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-4000K

Luminous Intensity Polar Plot



TEST NUMBER: P937640

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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3468	3468	3468
5°	3387	4008	4662
10°	3071	5841	7728
15°	2609	7629	9332
20°	2123	8838	9511
25°	1770	9246	9318
30°	1492	9302	9300
35°	1319	9146	9541
40°	1148	8942	9789
45°	1039	8792	9827
50°	953	8657	9665
55°	911	8460	9236
60°	932	8085	8559
65°	968	7517	7630
70°	1029	6551	6447
75°	1136	5337	5030
80°	1230	3697	3391
85°	1073	1958	1735

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 9827 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	0.7
10°-20°	321.4	3.3
20°-30°	562.2	5.7
30°-40°	723.7	7.4
40°-50°	808.4	8.2
50°-60°	774.2	7.9
60°-70°	613.6	6.2
70°-80°	360.8	3.7
80°-90°	103.5	1.1
90°-100°	412.2	4.2
100°-110°	1083.7	11.0
110°-120°	1123.7	11.4
120°-130°	901.3	9.2
130°-140°	707.2	7.2
140°-150°	542.8	5.5
150°-160°	390.9	4.0
160°-170°	239.2	2.4
170°-180°	80.8	0.8
0°-30°	956.2	9.7
0°-40°	1679.9	17.1
0°-60°	3262.5	33.2
0°-90°	4340.4	44.2
90°-120°	2619.6	26.7
90°-150°	4771.0	48.6
90°-180°	5482.0	55.8
0°-180°	9822.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	561	561	561	561	561	
5°	546	586	660	746	773	50
15°	409	755	1273	1543	1592	114
25°	261	856	1516	1583	1585	120
35°	177	818	1428	1509	1568	110
45°	121	653	1262	1446	1511	93
55°	86	415	1071	1244	1278	79
65°	68	220	795	894	907	68
75°	50	135	436	480	481	53
85°	18	42	108	119	121	19
90°	6	16	43	22	22	6
95°	54	213	710	366	249	61
105°	195	296	1198	1819	1697	207
115°	347	421	960	1914	2185	343
125°	482	541	873	1475	1740	428
135°	575	633	846	1191	1350	445
145°	667	709	835	1016	1095	418
155°	754	775	835	917	943	346
165°	813	824	835	868	878	230
175°	846	846	840	851	851	80
180°	846	846	846	846	846	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	560.6	560.6	560.6	560.6	560.6	560.6	560.6	560.6	560.6	560.6	560.6
2.5°	560.6	560.6	564.2	566.1	569.6	571.4	575.1	578.7	589.4	591.3	594.9
5°	546.2	553.4	576.9	585.9	611.1	645.4	659.8	683.2	731.9	746.4	755.4
7.5°	524.6	540.8	598.5	612.9	676.0	766.2	804.0	854.5	932.0	969.9	1000.5
10°	490.3	524.6	627.4	661.6	764.4	901.4	971.7	1042.0	1159.2	1211.5	1231.3
12.5°	452.5	508.4	658.0	704.9	852.7	1052.8	1137.5	1215.0	1348.4	1418.8	1429.6
15°	409.2	484.9	686.9	755.4	946.4	1179.0	1272.8	1368.3	1492.6	1543.1	1555.8
17.5°	371.4	466.9	713.9	786.0	1018.5	1292.6	1388.1	1467.4	1568.4	1602.6	1611.6
20°	324.5	438.1	731.9	825.7	1094.3	1375.5	1467.4	1528.7	1597.2	1618.9	1622.4
22.5°	290.3	407.4	742.7	840.0	1144.7	1425.9	1503.4	1552.1	1599.1	1606.2	1608.1
25°	261.4	373.1	740.9	856.3	1188.0	1456.6	1516.1	1552.1	1579.2	1582.8	1582.8
27.5°	234.3	335.3	733.7	859.9	1220.5	1463.8	1510.6	1535.9	1548.6	1555.8	1555.8
30°	210.9	299.3	715.7	852.7	1234.8	1456.6	1494.4	1507.1	1519.7	1530.5	1535.9
32.5°	192.9	265.0	688.6	838.2	1236.7	1438.6	1465.6	1472.8	1490.8	1516.1	1525.1
35°	176.7	230.8	658.0	818.4	1225.8	1409.8	1427.8	1435.0	1471.0	1508.9	1521.5
37.5°	160.5	205.5	618.4	784.2	1209.6	1375.5	1388.1	1400.8	1456.6	1501.6	1516.1
40°	144.2	183.8	571.4	746.4	1184.3	1334.0	1344.8	1364.6	1438.6	1490.8	1505.3
42.5°	131.6	165.8	520.9	706.7	1152.0	1287.1	1303.3	1332.2	1416.9	1472.8	1489.1
45°	120.8	147.8	466.9	652.6	1110.5	1238.5	1261.9	1301.6	1391.7	1445.8	1460.2
47.5°	110.0	135.2	411.1	596.7	1065.4	1189.8	1220.5	1265.5	1357.5	1409.8	1422.3
50°	101.0	122.6	355.1	537.2	1016.7	1137.5	1173.6	1220.5	1314.2	1362.8	1379.1
52.5°	93.8	111.8	302.8	477.7	960.8	1083.5	1124.9	1173.6	1261.9	1308.8	1319.6
55°	86.5	102.8	257.8	414.6	903.2	1025.7	1070.8	1117.7	1204.2	1243.8	1251.1
57.5°	83.0	95.5	220.0	355.1	841.9	960.8	1011.3	1054.6	1135.7	1166.3	1173.6
60°	77.5	90.1	191.1	304.6	775.2	899.5	942.8	986.0	1054.6	1079.8	1085.2
62.5°	72.1	86.5	169.5	256.0	706.7	827.4	870.7	910.4	968.0	986.0	993.3
65°	68.5	83.0	153.3	220.0	636.4	751.7	795.0	829.2	876.2	894.2	897.7
67.5°	64.9	79.3	140.6	189.3	566.1	676.0	708.4	740.9	777.0	795.0	796.8
70°	59.5	75.7	129.8	167.6	493.9	589.4	616.6	650.8	679.6	688.6	694.1
72.5°	55.9	70.3	122.6	151.5	420.1	506.6	531.8	551.6	576.9	585.9	585.9
75°	50.5	63.1	115.3	135.2	344.3	414.6	436.3	456.1	475.9	479.6	474.1
77.5°	45.0	55.9	99.2	113.6	268.6	328.1	346.1	356.9	373.1	376.8	378.6
80°	37.8	48.7	77.5	88.3	194.7	241.6	254.2	263.2	277.6	277.6	281.3
82.5°	28.8	37.8	55.9	63.1	131.6	165.8	176.7	182.1	191.1	191.1	191.1
85°	18.0	23.5	36.0	41.5	79.3	101.0	108.2	110.0	117.2	119.0	119.0
87.5°	9.0	12.6	23.5	25.2	41.5	52.3	52.3	55.9	55.9	54.1	52.3
90°	5.6	10.2	14.7	15.9	25.0	37.1	43.1	38.3	28.7	21.6	21.6
92.5°	22.7	61.3	99.9	109.5	154.0	213.2	242.9	212.9	152.8	107.8	103.5
95°	54.5	125.1	195.8	213.4	379.0	599.6	710.0	633.6	480.7	366.0	353.0
97.5°	94.2	156.5	218.9	234.4	510.4	878.4	1062.5	1014.2	917.6	845.1	820.3
100°	124.9	181.4	237.9	252.0	558.2	966.6	1170.8	1174.3	1181.4	1186.7	1157.2
102.5°	151.0	203.8	256.4	269.6	580.3	994.4	1201.4	1263.0	1386.1	1478.4	1453.2
105°	195.2	239.9	284.5	295.7	596.5	997.6	1198.1	1336.1	1612.0	1818.9	1805.4
107.5°	240.6	282.3	323.9	334.3	599.5	953.1	1130.0	1322.4	1707.3	1996.0	1999.3
110°	271.3	308.8	346.5	355.8	595.0	913.8	1073.2	1288.3	1718.7	2041.4	2055.5

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	301.4	337.2	373.0	382.0	595.2	879.4	1021.5	1241.7	1682.2	2012.5	2034.1
115°	346.8	379.8	412.8	421.1	600.6	840.0	959.7	1171.8	1596.1	1914.3	1944.4
117.5°	391.6	421.6	451.6	459.1	611.7	815.3	917.1	1108.6	1491.4	1778.6	1812.0
120°	417.7	446.0	474.2	481.3	620.9	807.0	900.1	1075.0	1424.9	1687.3	1719.7
122.5°	443.3	471.7	500.3	507.4	633.9	802.7	887.1	1044.6	1359.6	1595.9	1627.9
125°	482.4	508.4	534.4	540.9	651.6	799.1	872.9	1006.7	1274.3	1475.1	1504.5
127.5°	514.2	540.4	566.7	573.3	669.1	797.0	861.0	975.9	1205.6	1378.0	1402.8
130°	531.2	559.5	587.7	594.8	682.0	798.3	856.4	958.7	1163.2	1316.7	1339.6
132.5°	548.8	577.1	605.3	612.4	692.4	799.1	852.4	944.0	1127.1	1264.5	1285.0
135°	574.9	600.6	626.4	632.8	703.8	798.3	845.6	922.3	1075.6	1190.7	1208.5
137.5°	601.5	627.0	652.6	658.9	720.8	803.3	844.5	909.4	1039.0	1136.2	1150.7
140°	623.7	647.2	670.7	676.5	731.2	804.0	840.5	896.5	1008.5	1092.5	1106.0
142.5°	640.7	662.5	684.1	689.6	739.9	806.9	840.5	889.7	988.0	1061.8	1073.5
145°	666.9	685.8	704.7	709.4	751.3	807.0	834.9	875.1	955.6	1015.9	1024.7
147.5°	693.0	711.3	729.7	734.3	767.8	812.5	834.9	866.5	929.8	977.3	984.6
150°	710.0	726.6	743.3	747.4	776.6	815.4	834.9	861.6	915.0	955.1	961.0
152.5°	727.6	740.3	752.8	756.0	782.3	817.3	834.9	857.7	903.4	937.6	942.0
155°	753.7	763.0	772.3	774.6	794.7	821.5	834.9	853.1	889.4	916.6	919.6
157.5°	773.0	782.1	791.1	793.4	807.2	825.7	834.9	849.0	877.3	898.4	900.5
160°	786.0	793.1	800.2	801.9	812.9	827.6	834.9	847.0	871.2	889.4	890.5
162.5°	799.1	804.4	809.7	811.0	818.9	829.6	834.9	845.1	865.5	880.8	881.9
165°	813.3	818.0	822.9	824.0	827.7	832.5	834.9	842.1	856.8	867.8	869.0
167.5°	826.3	828.6	830.9	831.4	834.4	838.5	840.5	845.3	854.9	862.1	862.6
170°	834.9	837.1	839.4	840.0	840.1	840.4	840.5	845.3	854.9	862.1	862.1
172.5°	839.4	839.9	840.4	840.5	840.5	840.5	840.5	844.3	851.9	857.5	857.1
175°	845.6	845.6	845.6	845.6	843.9	841.6	840.5	842.9	847.7	851.3	851.3
177.5°	845.6	845.6	845.6	845.6	844.3	842.6	841.7	843.6	847.3	850.1	849.6
180°	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6	845.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	560.6	560.6
2.5°	598.5	594.9
5°	769.7	773.4
7.5°	1036.5	1034.8
10°	1289.0	1305.1
12.5°	1472.8	1476.4
15°	1584.6	1591.8
17.5°	1627.9	1629.6
20°	1629.6	1626.1
22.5°	1609.8	1606.2
25°	1586.4	1584.6
27.5°	1564.8	1566.6
30°	1555.8	1561.1
32.5°	1555.8	1564.8
35°	1559.4	1568.4
37.5°	1557.6	1568.4
40°	1550.3	1562.9
42.5°	1530.5	1539.6
45°	1499.9	1510.6
47.5°	1460.2	1467.4
50°	1409.8	1416.9
52.5°	1346.6	1348.4
55°	1270.9	1278.1
57.5°	1189.8	1191.6
60°	1099.7	1105.0
62.5°	1004.1	1004.1
65°	903.2	906.7
67.5°	798.6	807.6
70°	692.2	694.1
72.5°	587.7	587.7
75°	479.6	481.3
77.5°	376.8	376.8
80°	279.4	281.3
82.5°	192.9	196.5
85°	120.8	120.8
87.5°	55.9	50.5
90°	21.6	21.6
92.5°	86.3	69.2
95°	301.1	249.1
97.5°	721.4	622.6
100°	1039.4	921.6
102.5°	1352.3	1251.4
105°	1751.1	1696.9
107.5°	2012.5	2025.6
110°	2112.1	2168.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2120.9	2207.7
115°	2064.7	2185.0
117.5°	1945.4	2078.9
120°	1849.4	1979.0
122.5°	1755.8	1883.7
125°	1622.2	1740.0
127.5°	1502.3	1601.6
130°	1431.5	1523.3
132.5°	1367.3	1449.5
135°	1279.3	1350.2
137.5°	1208.7	1266.8
140°	1160.3	1214.5
142.5°	1120.2	1166.9
145°	1060.1	1095.4
147.5°	1013.9	1043.2
150°	984.8	1008.5
152.5°	959.9	977.9
155°	931.4	943.2
157.5°	908.8	917.1
160°	895.4	900.1
162.5°	886.4	891.0
165°	873.8	878.5
167.5°	864.6	866.6
170°	862.1	862.1
172.5°	855.3	853.6
175°	851.3	851.3
177.5°	847.6	845.6
180°	845.6	845.6

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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	4.77	5.61	5.77	6.63	7.98	17.93	18.78	18.93	19.79	21.14
	3H	5.47	6.23	6.48	7.25	8.62	19.76	20.52	20.77	21.55	22.92
	4H	5.77	6.49	6.79	7.51	8.89	20.41	21.12	21.43	22.15	23.53
	6H	6.02	6.68	7.05	7.71	9.10	20.83	21.49	21.86	22.52	23.91
	8H	6.09	6.72	7.12	7.77	9.15	20.95	21.58	21.99	22.63	24.01
	12H	6.10	6.70	7.15	7.75	9.16	21.01	21.62	22.06	22.66	24.07
4H	2H	11.97	12.69	13.00	13.72	15.09	18.20	18.92	19.23	19.95	21.33
	3H	13.54	14.14	14.57	15.19	16.59	20.24	20.85	21.28	21.90	23.29
	4H	13.63	14.18	14.68	15.23	16.64	21.01	21.56	22.05	22.60	24.02
	6H	13.64	14.12	14.70	15.19	16.59	21.54	22.02	22.59	23.09	24.49
	8H	13.62	14.06	14.67	15.13	16.55	21.70	22.14	22.75	23.21	24.63
	12H	13.57	13.98	14.65	15.05	16.48	21.79	22.19	22.86	23.27	24.70
8H	4H	15.07	15.52	16.13	16.58	18.00	21.07	21.51	22.12	22.57	24.00
	6H	15.31	15.68	16.39	16.79	18.21	21.69	22.06	22.77	23.16	24.58
	8H	15.33	15.66	16.42	16.74	18.18	21.91	22.23	22.99	23.32	24.76
	12H	15.30	15.58	16.39	16.67	18.15	22.05	22.33	23.14	23.42	24.90
12H	4H	15.21	15.62	16.29	16.69	18.12	21.02	21.42	22.09	22.50	23.93
	6H	15.57	15.90	16.66	16.98	18.42	21.67	22.00	22.76	23.08	24.52
	8H	15.64	15.92	16.73	17.01	18.49	21.90	22.18	22.99	23.27	24.75