

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: P936843

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936843
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

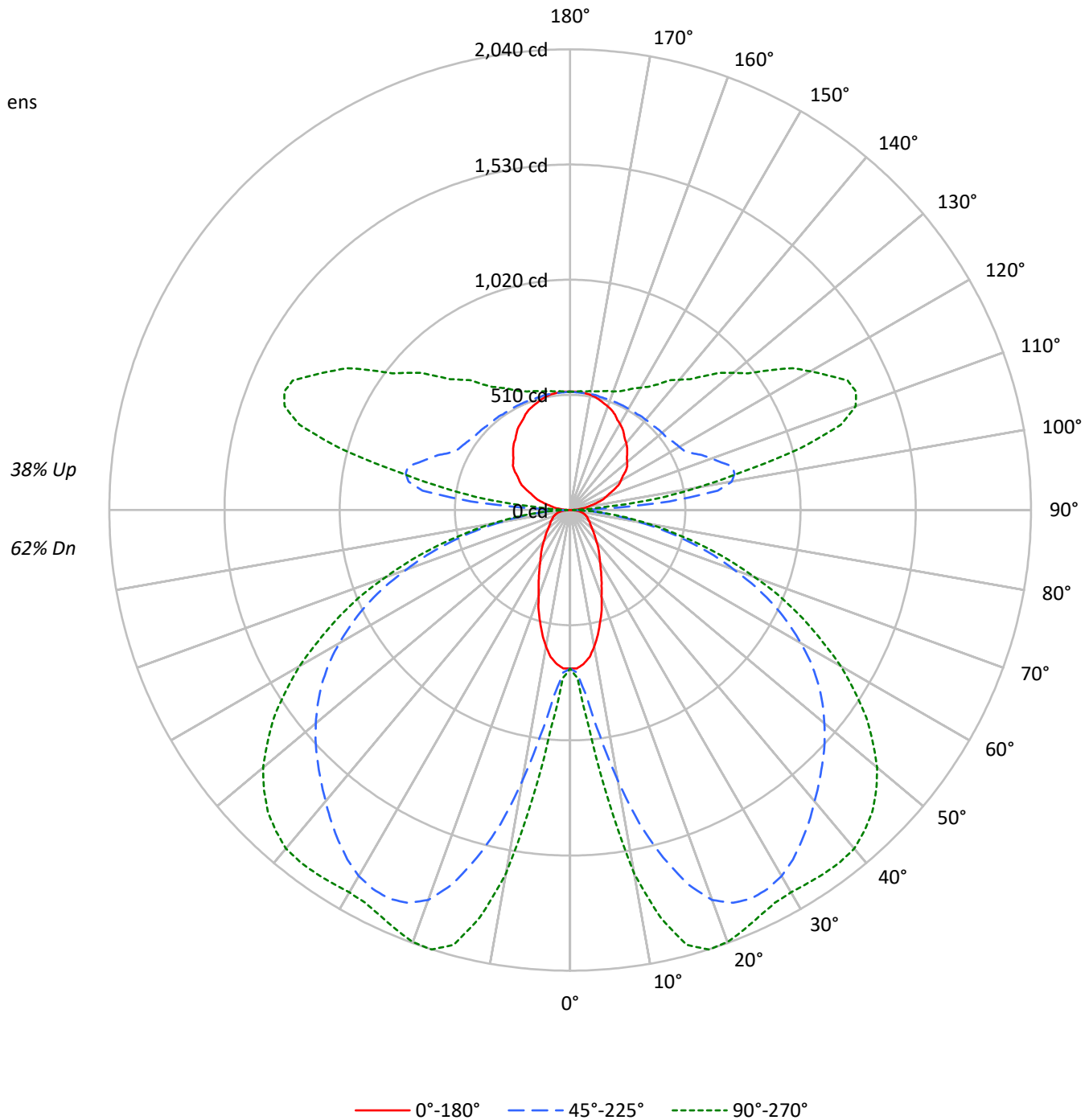
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8833.4 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 90.4
Input Voltage (V): NR
Input Current (A_{in}): 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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3257	3257	3257
5°	3182	3764	4378
10°	2886	5487	7258
15°	2453	7169	8764
20°	1997	8307	8932
25°	1666	8694	8750
30°	1405	8748	8734
35°	1242	8603	8959
40°	1082	8414	9193
45°	980	8276	9229
50°	899	8152	9076
55°	861	7969	8674
60°	881	7620	8039
65°	917	7087	7166
70°	977	6181	6053
75°	1082	5039	4724
80°	1183	3494	3184
85°	1048	1855	1630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.0
10°-20°	402.4	4.6
20°-30°	703.9	8.0
30°-40°	906.2	10.3
40°-50°	1012.2	11.5
50°-60°	969.4	11.0
60°-70°	768.3	8.7
70°-80°	451.8	5.1
80°-90°	127.5	1.4
90°-100°	255.7	2.9
100°-110°	672.3	7.6
110°-120°	697.1	7.9
120°-130°	559.2	6.3
130°-140°	438.7	5.0
140°-150°	336.8	3.8
150°-160°	242.5	2.7
160°-170°	148.4	1.7
170°-180°	50.1	0.6
0°-30°	1197.2	13.6
0°-40°	2103.4	23.8
0°-60°	4085.0	46.2
0°-90°	5432.6	61.5
90°-120°	1625.1	18.4
90°-150°	2959.8	33.5
90°-180°	3401.0	38.5
0°-180°	8833.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	684	734	826	934	968	63
15°	512	946	1594	1932	1993	143
25°	327	1072	1898	1982	1984	151
35°	221	1025	1788	1889	1964	138
45°	151	817	1580	1810	1892	117
55°	108	519	1341	1557	1600	99
65°	86	275	995	1120	1135	85
75°	63	169	546	600	603	66
85°	22	52	136	149	151	24
90°	4	10	27	13	13	4
95°	34	132	440	227	155	38
105°	121	184	743	1128	1053	128
115°	215	261	595	1188	1356	212
125°	299	336	542	915	1080	266
135°	357	393	525	739	838	276
145°	414	440	518	630	680	259
155°	468	481	518	569	585	215
165°	504	511	518	538	545	142
175°	525	525	521	528	528	50
180°	525	525	525	525	525	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
2.5°	702.0	702.0	706.5	708.8	713.3	715.5	720.0	724.6	738.1	740.4	744.9
5°	683.9	693.0	722.3	733.6	765.2	808.1	826.1	855.5	916.4	934.5	945.8
7.5°	656.8	677.2	749.4	767.4	846.4	959.3	1006.7	1069.9	1167.0	1214.4	1252.7
10°	613.9	656.8	785.5	828.4	957.1	1128.6	1216.6	1304.7	1451.3	1516.8	1541.6
12.5°	566.5	636.5	823.9	882.6	1067.7	1318.2	1424.3	1521.4	1688.4	1776.4	1789.9
15°	512.4	607.2	860.0	945.8	1185.0	1476.2	1593.5	1713.2	1868.9	1932.1	1947.9
17.5°	465.0	584.7	893.8	984.1	1275.3	1618.4	1738.1	1837.3	1963.7	2006.6	2018.0
20°	406.3	548.5	916.4	1033.8	1370.1	1722.3	1837.3	1914.1	1999.9	2026.9	2031.5
22.5°	363.4	510.1	930.0	1051.9	1433.3	1785.5	1882.5	1943.4	2002.2	2011.1	2013.4
25°	327.3	467.2	927.7	1072.2	1487.5	1823.8	1898.3	1943.4	1977.3	1981.8	1981.8
27.5°	293.4	419.8	918.7	1076.7	1528.1	1832.9	1891.6	1923.2	1939.0	1947.9	1947.9
30°	264.1	374.7	896.1	1067.7	1546.1	1823.8	1871.2	1887.0	1902.8	1916.3	1923.2
32.5°	241.5	331.8	862.2	1049.6	1548.4	1801.3	1835.1	1844.1	1866.7	1898.3	1909.6
35°	221.2	289.0	823.9	1024.8	1534.9	1765.1	1787.7	1796.7	1841.8	1889.2	1905.0
37.5°	200.9	257.3	774.2	981.9	1514.5	1722.3	1738.1	1753.9	1823.8	1880.2	1898.3
40°	180.6	230.3	715.5	934.5	1482.9	1670.3	1683.8	1708.7	1801.3	1866.7	1884.7
42.5°	164.8	207.6	652.3	884.8	1442.4	1611.7	1632.0	1668.0	1774.1	1844.1	1864.5
45°	151.3	185.1	584.7	817.1	1390.4	1550.7	1580.1	1629.7	1742.5	1810.2	1828.3
47.5°	137.7	169.3	514.6	747.1	1334.0	1489.8	1528.1	1584.6	1699.6	1765.1	1780.9
50°	126.4	153.5	444.7	672.6	1273.1	1424.3	1469.4	1528.1	1645.5	1706.5	1726.7
52.5°	117.4	139.9	379.2	598.1	1203.0	1356.5	1408.5	1469.4	1580.1	1638.7	1652.2
55°	108.3	128.6	322.8	519.1	1130.9	1284.4	1340.7	1399.5	1507.8	1557.4	1566.5
57.5°	103.9	119.7	275.4	444.7	1054.1	1203.0	1266.2	1320.5	1422.0	1460.4	1469.4
60°	97.0	112.8	239.2	381.5	970.6	1126.3	1180.5	1234.6	1320.5	1352.1	1358.8
62.5°	90.3	108.3	212.2	320.6	884.8	1036.1	1090.2	1139.9	1212.1	1234.6	1243.7
65°	85.8	103.9	191.8	275.4	796.8	941.2	995.4	1038.3	1097.0	1119.6	1124.1
67.5°	81.2	99.3	176.0	237.0	708.8	846.4	887.1	927.7	972.9	995.4	997.7
70°	74.5	94.8	162.5	209.9	618.5	738.1	772.0	814.8	851.0	862.2	869.0
72.5°	70.0	88.1	153.5	189.6	525.9	634.3	665.9	690.7	722.3	733.6	733.6
75°	63.2	79.0	144.4	169.3	431.2	519.1	546.2	571.1	595.9	600.5	593.6
77.5°	56.5	70.0	124.1	142.2	336.4	410.8	433.4	446.9	467.2	471.7	474.0
80°	47.4	61.0	97.0	110.6	243.8	302.4	318.2	329.5	347.6	347.6	352.2
82.5°	36.1	47.4	70.0	79.0	164.8	207.6	221.2	228.0	239.2	239.2	239.2
85°	22.5	29.4	45.2	51.9	99.3	126.4	135.5	137.7	146.7	149.0	149.0
87.5°	11.3	15.8	29.4	31.6	51.9	65.4	65.4	70.0	70.0	67.7	65.4
90°	3.5	6.3	9.1	9.8	15.5	23.0	26.7	23.7	17.9	13.4	13.4
92.5°	14.1	38.0	62.0	68.0	95.6	132.3	150.7	132.0	94.8	66.9	64.2
95°	33.8	77.6	121.5	132.4	235.1	372.0	440.5	393.1	298.3	227.1	219.1
97.5°	58.4	97.0	135.7	145.4	316.6	544.9	659.1	629.2	569.2	524.3	508.9
100°	77.5	112.5	147.5	156.3	346.3	599.7	726.4	728.6	732.9	736.2	717.9
102.5°	93.7	126.4	159.0	167.2	359.9	616.9	745.4	783.6	859.9	917.2	901.5
105°	121.1	148.8	176.5	183.5	370.1	618.9	743.3	828.8	1000.1	1128.5	1120.0
107.5°	149.3	175.1	200.9	207.4	371.9	591.3	701.0	820.4	1059.2	1238.3	1240.4
110°	168.3	191.6	215.0	220.8	369.2	566.9	665.8	799.3	1066.2	1266.4	1275.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	187.0	209.2	231.4	236.9	369.2	545.6	633.8	770.3	1043.6	1248.5	1262.0
115°	215.2	235.7	256.2	261.3	372.7	521.2	595.4	727.0	990.2	1187.6	1206.2
117.5°	242.9	261.5	280.2	284.9	379.6	505.8	568.9	687.7	925.3	1103.4	1124.1
120°	259.1	276.7	294.2	298.6	385.2	500.7	558.4	666.9	883.9	1046.7	1066.8
122.5°	274.9	292.6	310.3	314.7	393.2	498.0	550.3	648.0	843.5	990.1	1009.9
125°	299.3	315.3	331.5	335.5	404.2	495.7	541.5	624.5	790.6	915.1	933.4
127.5°	319.0	335.2	351.5	355.6	415.1	494.5	534.1	605.4	748.0	854.9	870.3
130°	329.5	347.0	364.6	369.0	423.0	495.2	531.3	594.7	721.7	816.8	831.1
132.5°	340.5	358.0	375.6	379.9	429.5	495.7	528.9	585.7	699.3	784.4	797.2
135°	356.7	372.7	388.5	392.6	436.5	495.2	524.6	572.2	667.3	738.6	749.7
137.5°	373.3	389.1	404.9	408.8	447.1	498.3	523.9	564.2	644.6	704.9	713.9
140°	386.9	401.5	416.0	419.7	453.6	498.8	521.4	556.2	625.6	677.8	686.1
142.5°	397.5	410.9	424.4	427.7	459.0	500.6	521.4	551.9	613.0	658.8	666.0
145°	413.7	425.4	437.2	440.1	466.1	500.7	517.9	542.9	592.9	630.3	635.7
147.5°	429.9	441.3	452.8	455.6	476.3	504.1	517.9	537.6	576.8	606.3	610.8
150°	440.5	450.8	461.1	463.7	481.8	505.9	517.9	534.5	567.7	592.6	596.3
152.5°	451.4	459.3	467.0	469.0	485.3	507.1	517.9	532.1	560.4	581.7	584.5
155°	467.5	473.4	479.2	480.6	493.1	509.7	517.9	529.2	551.7	568.6	570.5
157.5°	479.5	485.1	490.8	492.2	500.8	512.2	517.9	526.7	544.2	557.3	558.6
160°	487.6	492.1	496.4	497.5	504.4	513.4	517.9	525.5	540.4	551.7	552.4
162.5°	495.7	499.1	502.3	503.2	508.1	514.7	517.9	524.3	537.0	546.5	547.2
165°	504.5	507.5	510.4	511.2	513.4	516.4	517.9	522.5	531.5	538.4	539.1
167.5°	512.6	514.0	515.5	515.8	517.7	520.2	521.4	524.4	530.4	534.9	535.2
170°	517.9	519.3	520.8	521.1	521.2	521.4	521.4	524.4	530.4	534.9	534.9
172.5°	520.8	521.1	521.4	521.4	521.4	521.4	521.4	523.8	528.5	532.0	531.8
175°	524.6	524.6	524.6	524.6	523.6	522.1	521.4	522.9	525.9	528.1	528.1
177.5°	524.6	524.6	524.6	524.6	523.8	522.6	522.1	523.3	525.6	527.4	527.1
180°	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6	524.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	702.0	702.0
2.5°	749.4	744.9
5°	963.8	968.3
7.5°	1297.8	1295.6
10°	1613.9	1634.2
12.5°	1844.1	1848.7
15°	1984.1	1993.1
17.5°	2038.2	2040.5
20°	2040.5	2036.0
22.5°	2015.7	2011.1
25°	1986.4	1984.1
27.5°	1959.2	1961.5
30°	1947.9	1954.8
32.5°	1947.9	1959.2
35°	1952.5	1963.7
37.5°	1950.2	1963.7
40°	1941.2	1957.0
42.5°	1916.3	1927.6
45°	1878.0	1891.6
47.5°	1828.3	1837.3
50°	1765.1	1774.1
52.5°	1686.1	1688.4
55°	1591.3	1600.4
57.5°	1489.8	1492.0
60°	1376.9	1383.7
62.5°	1257.3	1257.3
65°	1130.9	1135.4
67.5°	999.9	1011.2
70°	866.8	869.0
72.5°	735.8	735.8
75°	600.5	602.7
77.5°	471.7	471.7
80°	349.9	352.2
82.5°	241.5	246.1
85°	151.3	151.3
87.5°	70.0	63.2
90°	13.4	13.4
92.5°	53.6	43.0
95°	186.8	154.6
97.5°	447.6	386.2
100°	644.9	571.8
102.5°	838.9	776.3
105°	1086.4	1052.7
107.5°	1248.5	1256.6
110°	1310.2	1345.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1315.8	1369.6
115°	1280.9	1355.5
117.5°	1207.0	1289.7
120°	1147.3	1227.7
122.5°	1089.3	1168.6
125°	1006.4	1079.5
127.5°	931.9	993.6
130°	888.0	945.0
132.5°	848.2	899.2
135°	793.7	837.6
137.5°	749.9	785.9
140°	719.8	753.4
142.5°	694.9	723.9
145°	657.7	679.5
147.5°	629.0	647.2
150°	611.0	625.6
152.5°	595.6	606.7
155°	577.8	585.2
157.5°	563.8	568.9
160°	555.4	558.4
162.5°	550.0	552.8
165°	542.0	545.0
167.5°	536.4	537.7
170°	534.9	534.9
172.5°	530.7	529.6
175°	528.1	528.1
177.5°	525.9	524.6
180°	524.6	524.6



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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	6.09	7.12	6.93	7.99	9.08	19.27	20.29	20.11	21.17	22.26
	3H	6.81	7.73	7.66	8.61	9.73	21.12	22.04	21.98	22.93	24.05
	4H	7.11	7.99	7.99	8.88	10.01	21.77	22.65	22.65	23.54	24.67
	6H	7.37	8.18	8.26	9.08	10.22	22.21	23.02	23.10	23.91	25.06
	8H	7.45	8.22	8.34	9.13	10.27	22.34	23.11	23.23	24.02	25.16
	12H	7.47	8.20	8.37	9.11	10.28	22.41	23.15	23.31	24.05	25.22
4H	2H	13.33	14.20	14.20	15.09	16.22	19.56	20.44	20.44	21.33	22.45
	3H	14.91	15.64	15.80	16.56	17.71	21.62	22.36	22.51	23.28	24.42
	4H	15.01	15.68	15.91	16.60	17.77	22.40	23.07	23.30	23.98	25.15
	6H	15.03	15.61	15.95	16.55	17.72	22.95	23.53	23.86	24.47	25.64
	8H	15.01	15.55	15.93	16.49	17.68	23.11	23.66	24.03	24.59	25.78
	12H	14.98	15.47	15.92	16.42	17.61	23.22	23.71	24.15	24.66	25.85
8H	4H	16.47	17.01	17.39	17.95	19.13	22.47	23.02	23.39	23.95	25.14
	6H	16.72	17.17	17.66	18.14	19.33	23.11	23.56	24.05	24.54	25.72
	8H	16.74	17.14	17.69	18.10	19.31	23.33	23.73	24.29	24.70	25.90
	12H	16.72	17.07	17.67	18.03	19.28	23.48	23.84	24.44	24.80	26.05
12H	4H	16.62	17.11	17.56	18.06	19.26	22.43	22.92	23.37	23.88	25.07
	6H	16.98	17.38	17.93	18.35	19.55	23.10	23.50	24.05	24.46	25.66
	8H	17.06	17.41	18.02	18.37	19.62	23.33	23.69	24.29	24.64	25.90