

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: P936846

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936846
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-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

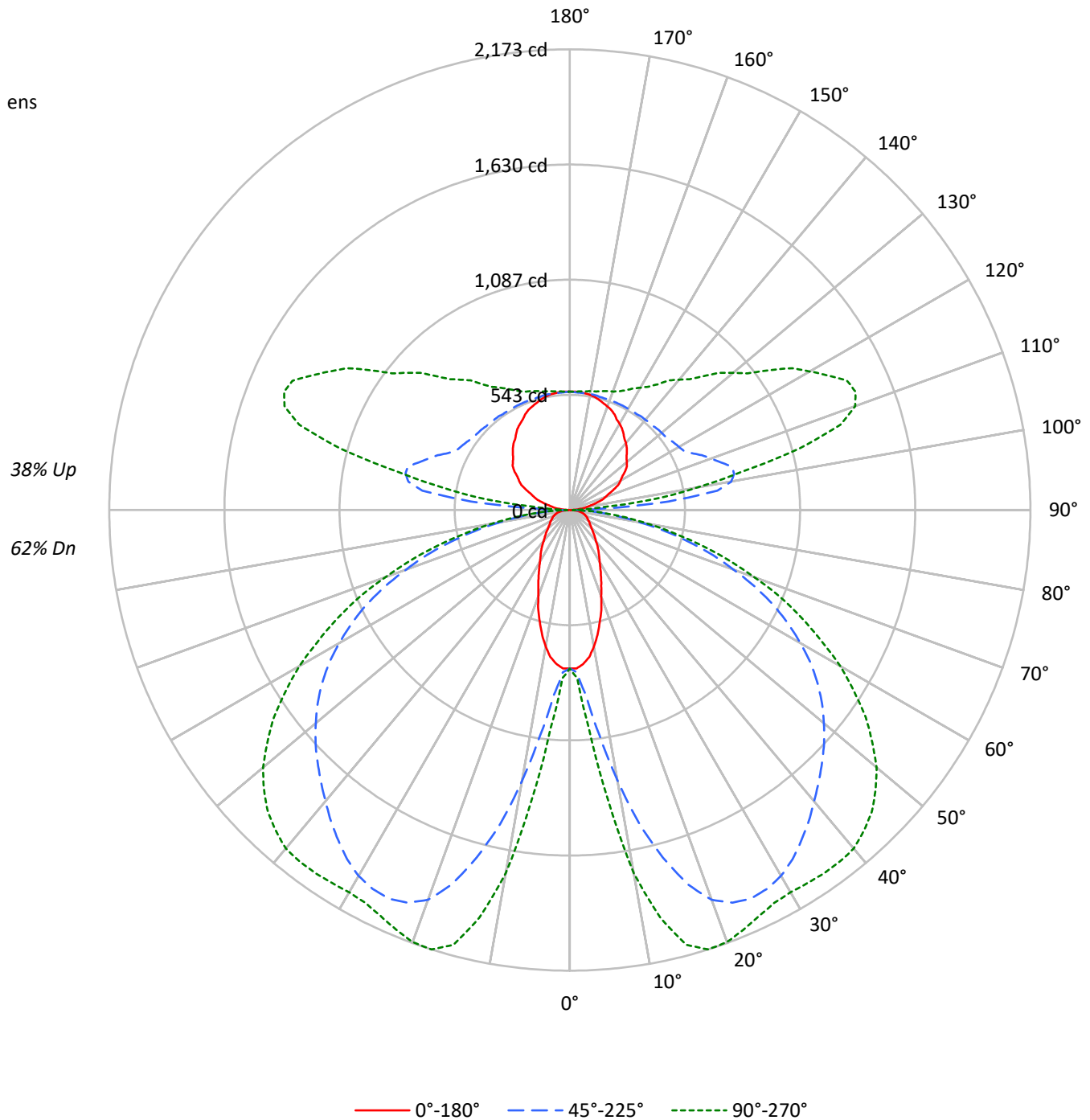
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9407.5 lumens
Efficiency: N/A
Efficacy: 104.1 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 (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: P936846
CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-4000K

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°	3469	3469	3469
5°	3388	4009	4662
10°	3073	5844	7729
15°	2612	7635	9333
20°	2127	8847	9512
25°	1774	9259	9319
30°	1496	9317	9301
35°	1323	9163	9541
40°	1153	8961	9790
45°	1044	8814	9829
50°	957	8681	9666
55°	916	8487	9238
60°	938	8115	8561
65°	976	7548	7632
70°	1040	6582	6447
75°	1153	5367	5031
80°	1260	3722	3390
85°	1118	1976	1736

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9829 cd/sqm



TEST NUMBER: P936846

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	1.0
10°-20°	428.6	4.6
20°-30°	749.7	8.0
30°-40°	965.1	10.3
40°-50°	1078.0	11.5
50°-60°	1032.4	11.0
60°-70°	818.2	8.7
70°-80°	481.1	5.1
80°-90°	135.8	1.4
90°-100°	272.3	2.9
100°-110°	716.0	7.6
110°-120°	742.4	7.9
120°-130°	595.5	6.3
130°-140°	467.3	5.0
140°-150°	358.6	3.8
150°-160°	258.3	2.7
160°-170°	158.0	1.7
170°-180°	53.4	0.6
0°-30°	1275.0	13.6
0°-40°	2240.1	23.8
0°-60°	4350.5	46.2
0°-90°	5785.6	61.5
90°-120°	1730.7	18.4
90°-150°	3152.2	33.5
90°-180°	3622.0	38.5
0°-180°	9407.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	748	748	748	748	748	
5°	728	781	880	995	1031	67
15°	546	1007	1697	2058	2123	152
25°	349	1142	2022	2111	2113	161
35°	236	1091	1904	2012	2091	147
45°	161	870	1683	1928	2014	125
55°	115	553	1428	1659	1704	105
65°	91	293	1060	1192	1209	90
75°	67	180	582	640	642	70
85°	24	55	144	159	161	25
90°	4	10	28	14	14	5
95°	36	141	469	242	165	40
105°	129	195	792	1202	1121	137
115°	229	278	634	1265	1444	226
125°	319	357	577	975	1150	283
135°	380	418	559	787	892	294
145°	441	469	552	671	724	276
155°	498	512	552	606	623	229
165°	537	544	552	573	580	152
175°	559	559	555	562	562	53
180°	559	559	559	559	559	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6	747.6
2.5°	747.6	747.6	752.5	754.8	759.6	762.0	766.8	771.6	786.1	788.5	793.3
5°	728.3	738.0	769.3	781.3	814.9	860.6	879.8	911.1	975.9	995.2	1007.2
7.5°	699.5	721.2	798.1	817.3	901.5	1021.6	1072.1	1139.4	1242.8	1293.3	1334.2
10°	653.8	699.5	836.6	882.3	1019.2	1201.9	1295.7	1389.5	1545.7	1615.4	1641.8
12.5°	603.4	677.9	877.4	939.9	1137.0	1403.8	1516.8	1620.2	1798.1	1891.9	1906.2
15°	545.7	646.7	915.9	1007.2	1262.0	1572.1	1697.1	1824.5	1990.4	2057.7	2074.5
17.5°	495.2	622.6	951.9	1048.1	1358.2	1723.6	1851.0	1956.7	2091.3	2137.0	2149.1
20°	432.7	584.2	975.9	1100.9	1459.1	1834.2	1956.7	2038.5	2129.8	2158.7	2163.5
22.5°	387.1	543.2	990.4	1120.2	1526.5	1901.5	2004.8	2069.7	2132.3	2141.8	2144.3
25°	348.6	497.6	988.0	1141.9	1584.1	1942.3	2021.7	2069.7	2105.8	2110.6	2110.6
27.5°	312.5	447.1	978.4	1146.7	1627.4	1952.0	2014.5	2048.1	2065.0	2074.5	2074.5
30°	281.3	399.1	954.3	1137.0	1646.6	1942.3	1992.8	2009.7	2026.5	2040.9	2048.1
32.5°	257.2	353.4	918.3	1117.8	1649.1	1918.3	1954.4	1964.0	1988.0	2021.7	2033.7
35°	235.6	307.7	877.4	1091.4	1634.6	1879.9	1903.9	1913.5	1961.5	2012.0	2028.9
37.5°	213.9	274.1	824.5	1045.7	1613.0	1834.2	1851.0	1867.8	1942.3	2002.4	2021.7
40°	192.3	245.2	762.0	995.2	1579.3	1778.9	1793.3	1819.7	1918.3	1988.0	2007.2
42.5°	175.5	221.1	694.7	942.3	1536.1	1716.4	1738.0	1776.4	1889.4	1964.0	1985.6
45°	161.1	197.1	622.6	870.2	1480.8	1651.4	1682.7	1735.6	1855.8	1927.9	1947.2
47.5°	146.6	180.3	548.1	795.7	1420.7	1586.6	1627.4	1687.6	1810.1	1879.9	1896.7
50°	134.6	163.5	473.6	716.3	1355.8	1516.8	1564.9	1627.4	1752.4	1817.4	1838.9
52.5°	125.0	149.0	403.9	637.0	1281.2	1444.7	1500.0	1564.9	1682.7	1745.2	1759.6
55°	115.3	137.0	343.8	552.9	1204.4	1367.8	1427.9	1490.4	1605.8	1658.6	1668.3
57.5°	110.6	127.4	293.3	473.6	1122.6	1281.2	1348.5	1406.3	1514.5	1555.3	1564.9
60°	103.3	120.2	254.8	406.2	1033.7	1199.5	1257.2	1314.9	1406.3	1440.0	1447.1
62.5°	96.1	115.3	226.0	341.4	942.3	1103.4	1161.1	1214.0	1290.9	1314.9	1324.5
65°	91.3	110.6	204.3	293.3	848.6	1002.4	1060.1	1105.8	1168.2	1192.4	1197.2
67.5°	86.5	105.8	187.5	252.4	754.8	901.5	944.7	988.0	1036.1	1060.1	1062.5
70°	79.3	101.0	173.1	223.6	658.7	786.1	822.1	867.8	906.3	918.3	925.5
72.5°	74.5	93.8	163.5	201.9	560.1	675.5	709.2	735.6	769.3	781.3	781.3
75°	67.3	84.1	153.8	180.3	459.2	552.9	581.7	608.2	634.7	639.5	632.2
77.5°	60.1	74.5	132.2	151.5	358.2	437.5	461.5	475.9	497.6	502.4	504.8
80°	50.5	64.9	103.3	117.8	259.6	322.1	338.9	350.9	370.2	370.2	375.0
82.5°	38.5	50.5	74.5	84.1	175.5	221.1	235.6	242.8	254.8	254.8	254.8
85°	24.0	31.3	48.1	55.3	105.8	134.6	144.3	146.6	156.3	158.6	158.6
87.5°	12.0	16.8	31.3	33.7	55.3	69.7	69.7	74.5	74.5	72.1	69.7
90°	3.7	6.7	9.7	10.5	16.5	24.5	28.5	25.3	19.0	14.3	14.3
92.5°	15.0	40.5	66.0	72.4	101.8	140.9	160.5	140.6	101.0	71.2	68.4
95°	36.0	82.7	129.4	141.0	250.3	396.1	469.1	418.6	317.6	241.9	233.3
97.5°	62.2	103.3	144.5	154.8	337.2	580.3	702.0	670.0	606.2	558.3	542.0
100°	82.5	119.8	157.1	166.5	368.9	638.7	773.6	775.9	780.6	784.0	764.5
102.5°	99.8	134.6	169.4	178.1	383.3	657.0	793.8	834.5	915.8	976.8	960.1
105°	129.0	158.5	188.0	195.4	394.1	659.1	791.6	882.7	1065.1	1201.8	1192.8
107.5°	159.0	186.5	213.9	220.9	396.1	629.7	746.5	873.7	1128.0	1318.8	1321.0
110°	179.2	204.0	229.0	235.1	393.1	603.7	709.1	851.2	1135.5	1348.7	1358.1



TEST NUMBER: P936846

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	199.1	222.8	246.4	252.3	393.2	581.1	675.0	820.4	1111.4	1329.6	1344.0
115°	229.1	251.0	272.8	278.3	396.9	555.1	634.1	774.3	1054.5	1264.8	1284.6
117.5°	258.7	278.5	298.4	303.4	404.2	538.7	605.9	732.4	985.4	1175.2	1197.2
120°	276.0	294.6	313.4	318.0	410.2	533.2	594.7	710.2	941.4	1114.8	1136.1
122.5°	292.8	311.6	330.5	335.2	418.8	530.3	586.1	690.1	898.4	1054.5	1075.6
125°	318.7	335.8	353.0	357.3	430.4	528.0	576.7	665.1	842.0	974.6	994.1
127.5°	339.7	357.0	374.3	378.7	442.1	526.6	568.8	644.8	796.6	910.5	926.8
130°	350.9	369.6	388.3	393.0	450.5	527.4	565.8	633.4	768.6	869.9	885.1
132.5°	362.6	381.2	400.0	404.6	457.5	528.0	563.2	623.7	744.7	835.4	849.0
135°	379.9	396.9	413.8	418.1	464.9	527.4	558.7	609.4	710.7	786.7	798.4
137.5°	397.5	414.3	431.2	435.4	476.2	530.7	558.0	600.8	686.5	750.7	760.3
140°	412.1	427.6	443.1	447.0	483.1	531.2	555.3	592.4	666.3	721.8	730.7
142.5°	423.3	437.6	452.0	455.5	488.8	533.1	555.3	587.8	652.8	701.6	709.3
145°	440.6	453.1	465.6	468.7	496.4	533.2	551.6	578.2	631.4	671.2	677.0
147.5°	457.8	470.0	482.2	485.2	507.3	536.9	551.6	572.5	614.3	645.7	650.5
150°	469.1	480.1	491.1	493.8	513.1	538.8	551.6	569.3	604.6	631.1	635.0
152.5°	480.7	489.1	497.4	499.5	516.9	540.1	551.6	566.7	596.8	619.5	622.5
155°	497.9	504.1	510.3	511.9	525.1	542.8	551.6	563.6	587.5	605.5	607.5
157.5°	510.7	516.7	522.7	524.2	533.3	545.5	551.6	560.9	579.5	593.5	594.9
160°	519.3	524.0	528.7	529.9	537.1	546.8	551.6	559.6	575.5	587.5	588.4
162.5°	528.0	531.5	535.0	535.9	541.1	548.1	551.6	558.3	571.9	582.0	582.7
165°	537.3	540.5	543.6	544.4	546.8	550.0	551.6	556.4	566.1	573.3	574.2
167.5°	546.0	547.4	549.0	549.3	551.3	554.0	555.3	558.5	564.9	569.6	570.0
170°	551.6	553.1	554.6	555.0	555.1	555.2	555.3	558.5	564.9	569.6	569.6
172.5°	554.6	555.0	555.2	555.3	555.3	555.3	555.3	557.9	562.9	566.6	566.3
175°	558.7	558.7	558.7	558.7	557.6	556.1	555.3	556.9	560.1	562.4	562.4
177.5°	558.7	558.7	558.7	558.7	557.8	556.6	556.1	557.3	559.8	561.7	561.3
180°	558.7	558.7	558.7	558.7	558.7	558.7	558.7	558.7	558.7	558.7	558.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	747.6	747.6
2.5°	798.1	793.3
5°	1026.4	1031.3
7.5°	1382.2	1379.8
10°	1718.8	1740.4
12.5°	1964.0	1968.8
15°	2113.0	2122.6
17.5°	2170.7	2173.1
20°	2173.1	2168.3
22.5°	2146.7	2141.8
25°	2115.5	2113.0
27.5°	2086.5	2089.0
30°	2074.5	2081.8
32.5°	2074.5	2086.5
35°	2079.3	2091.3
37.5°	2077.0	2091.3
40°	2067.3	2084.2
42.5°	2040.9	2052.9
45°	2000.0	2014.5
47.5°	1947.2	1956.7
50°	1879.9	1889.4
52.5°	1795.7	1798.1
55°	1694.7	1704.4
57.5°	1586.6	1589.0
60°	1466.3	1473.6
62.5°	1339.0	1339.0
65°	1204.4	1209.2
67.5°	1064.9	1076.9
70°	923.1	925.5
72.5°	783.7	783.7
75°	639.5	641.8
77.5°	502.4	502.4
80°	372.6	375.0
82.5°	257.2	262.1
85°	161.1	161.1
87.5°	74.5	67.3
90°	14.3	14.3
92.5°	57.0	45.8
95°	198.9	164.6
97.5°	476.6	411.3
100°	686.8	608.9
102.5°	893.4	826.8
105°	1157.0	1121.1
107.5°	1329.6	1338.3
110°	1395.4	1432.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1401.3	1458.6
115°	1364.1	1443.6
117.5°	1285.4	1373.6
120°	1221.8	1307.5
122.5°	1160.1	1244.6
125°	1071.8	1149.7
127.5°	992.5	1058.2
130°	945.7	1006.4
132.5°	903.4	957.7
135°	845.2	892.1
137.5°	798.7	837.0
140°	766.6	802.4
142.5°	740.1	770.9
145°	700.4	723.7
147.5°	669.9	689.2
150°	650.7	666.3
152.5°	634.3	646.1
155°	615.4	623.2
157.5°	600.5	605.9
160°	591.5	594.7
162.5°	585.7	588.7
165°	577.3	580.4
167.5°	571.3	572.6
170°	569.6	569.6
172.5°	565.2	564.0
175°	562.4	562.4
177.5°	560.1	558.7
180°	558.7	558.7



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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	6.31	7.34	7.15	8.21	9.30	19.49	20.51	20.33	21.39	22.48
	3H	7.03	7.95	7.88	8.83	9.95	21.34	22.26	22.20	23.14	24.26
	4H	7.33	8.21	8.21	9.10	10.22	21.99	22.87	22.86	23.75	24.88
	6H	7.59	8.40	8.48	9.29	10.44	22.43	23.24	23.32	24.13	25.28
	8H	7.67	8.44	8.56	9.35	10.49	22.56	23.33	23.45	24.24	25.38
	12H	7.69	8.42	8.59	9.33	10.50	22.63	23.37	23.53	24.27	25.44
4H	2H	13.54	14.42	14.42	15.31	16.44	19.78	20.66	20.66	21.54	22.67
	3H	15.13	15.86	16.02	16.78	17.93	21.84	22.58	22.73	23.49	24.64
	4H	15.23	15.90	16.13	16.81	17.98	22.62	23.29	23.52	24.20	25.37
	6H	15.25	15.83	16.16	16.77	17.94	23.17	23.75	24.08	24.69	25.86
	8H	15.23	15.77	16.15	16.71	17.89	23.33	23.88	24.25	24.81	26.00
	12H	15.20	15.69	16.13	16.64	17.83	23.43	23.92	24.37	24.88	26.07
8H	4H	16.69	17.23	17.61	18.16	19.35	22.69	23.23	23.61	24.17	25.35
	6H	16.94	17.39	17.88	18.36	19.55	23.33	23.78	24.27	24.75	25.94
	8H	16.96	17.36	17.91	18.32	19.53	23.55	23.95	24.51	24.92	26.12
	12H	16.94	17.29	17.89	18.25	19.50	23.70	24.06	24.66	25.01	26.27
12H	4H	16.84	17.33	17.78	18.28	19.47	22.65	23.14	23.59	24.09	25.29
	6H	17.20	17.60	18.15	18.56	19.77	23.31	23.71	24.27	24.68	25.88
	8H	17.28	17.63	18.24	18.59	19.84	23.55	23.90	24.51	24.86	26.11