

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: P936987

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-6-2700K

Issue Date: 12/17/2024

**Test Information**

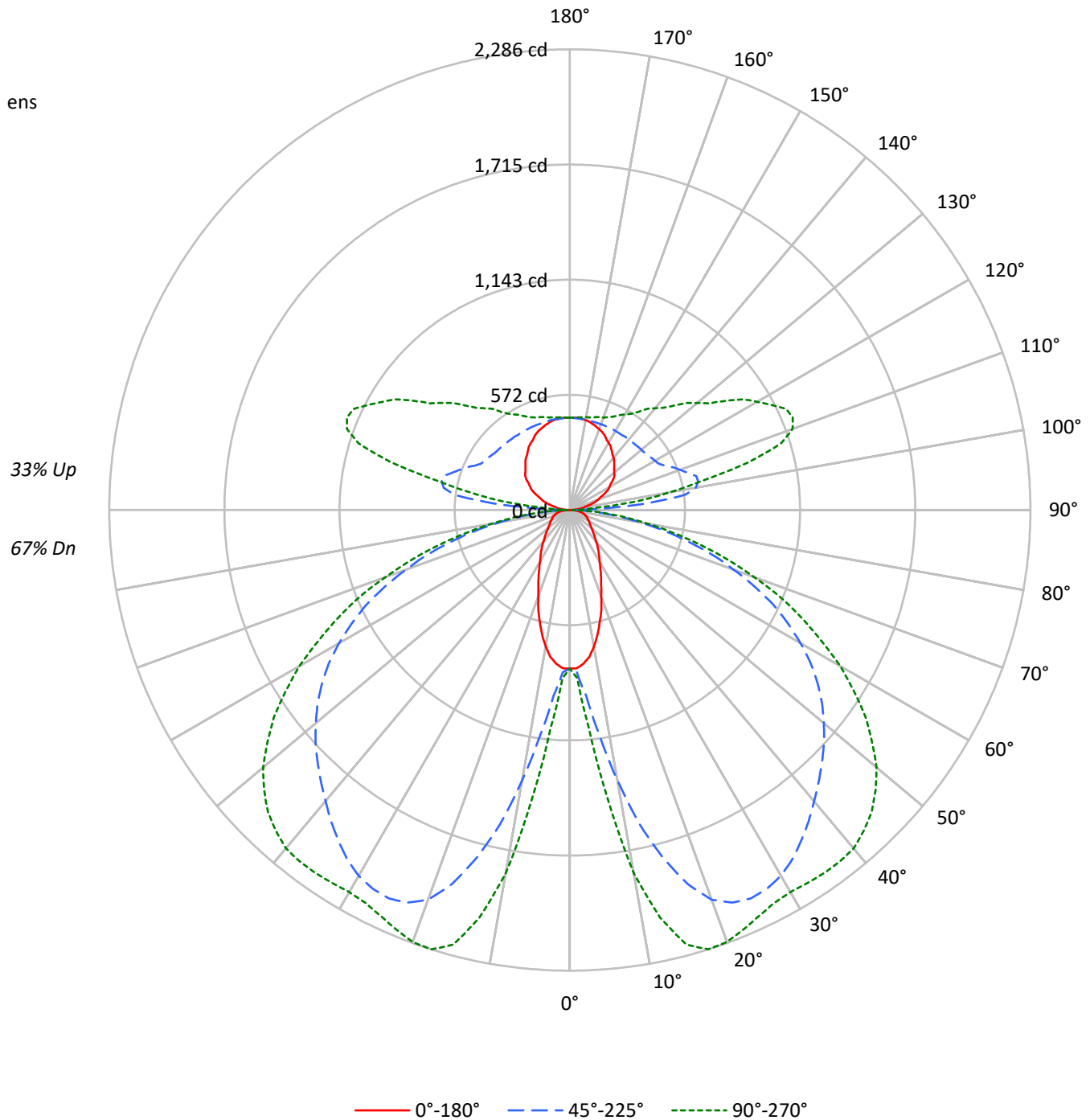
Test Method: LM-79-2019  
Report Number: P936987  
REPORT IS A COMBINATION OF REPORTS P933480 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-6-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9058.6 lumens  
Efficiency: N/A  
Efficacy: 107.8 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: Semi-Direct  
  
Input Watts (W): 84  
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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CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-6-2700K

### 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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4864	4864	4864
5°	4750	5620	6538
10°	4307	8191	10839
15°	3659	10698	13088
20°	2978	12394	13338
25°	2483	12968	13067
30°	2093	13046	13043
35°	1850	12826	13380
40°	1611	12541	13728
45°	1458	12330	13782
50°	1335	12141	13554
55°	1278	11866	12953
60°	1307	11339	12005
65°	1358	10541	10701
70°	1444	9186	9041
75°	1593	7484	7055
80°	1728	5184	4754
85°	1508	2746	2433

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13782 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.7	1.1
10°-20°	450.8	5.0
20°-30°	788.5	8.7
30°-40°	1015.0	11.2
40°-50°	1133.7	12.5
50°-60°	1085.8	12.0
60°-70°	860.5	9.5
70°-80°	506.0	5.6
80°-90°	142.3	1.6
90°-100°	223.7	2.5
100°-110°	588.0	6.5
110°-120°	609.7	6.7
120°-130°	489.0	5.4
130°-140°	383.7	4.2
140°-150°	294.5	3.3
150°-160°	212.1	2.3
160°-170°	129.8	1.4
170°-180°	43.8	0.5
0°-30°	1340.9	14.8
0°-40°	2355.9	26.0
0°-60°	4575.5	50.5
0°-90°	6084.3	67.2
90°-120°	1421.3	15.7
90°-150°	2588.6	28.6
90°-180°	2974.0	32.8
0°-180°	9058.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	766	822	925	1047	1085	71
15°	574	1059	1785	2164	2232	160
25°	367	1201	2126	2220	2222	169
35°	248	1148	2002	2116	2200	155
45°	169	915	1770	2028	2119	131
55°	121	582	1502	1744	1792	111
65°	96	308	1115	1254	1272	95
75°	71	190	612	672	675	74
85°	25	58	152	167	169	27
90°	3	9	23	12	12	4
95°	30	116	385	199	135	33
105°	106	160	650	987	921	112
115°	188	228	521	1039	1186	186
125°	262	293	474	800	944	232
135°	312	343	459	646	733	241
145°	362	385	453	551	594	227
155°	409	420	453	497	512	188
165°	441	447	453	471	477	125
175°	459	459	456	462	462	44
180°	459	459	459	459	459	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2
2.5°	786.2	786.2	791.3	793.8	798.9	801.5	806.5	811.5	826.7	829.3	834.3
5°	766.0	776.2	809.1	821.7	857.1	905.1	925.3	958.2	1026.5	1046.7	1059.3
7.5°	735.7	758.5	839.3	859.5	948.1	1074.5	1127.6	1198.4	1307.1	1360.1	1403.2
10°	687.6	735.7	879.8	927.9	1072.0	1264.1	1362.7	1461.3	1625.7	1699.0	1726.8
12.5°	634.6	712.9	922.8	988.5	1195.8	1476.5	1595.3	1704.0	1891.1	1989.7	2004.8
15°	573.9	680.1	963.2	1059.3	1327.3	1653.5	1784.9	1918.9	2093.4	2164.1	2181.8
17.5°	520.8	654.8	1001.2	1102.3	1428.5	1812.7	1946.7	2057.9	2199.6	2247.6	2260.2
20°	455.1	614.3	1026.5	1157.9	1534.6	1929.1	2057.9	2143.9	2240.0	2270.3	2275.4
22.5°	407.1	571.4	1041.6	1178.2	1605.5	1999.8	2108.5	2176.8	2242.5	2252.7	2255.1
25°	366.6	523.3	1039.1	1200.9	1666.1	2042.8	2126.3	2176.8	2214.7	2219.8	2219.8
27.5°	328.7	470.2	1029.0	1206.0	1711.6	2052.9	2118.6	2154.0	2171.7	2181.8	2181.8
30°	295.8	419.7	1003.7	1195.8	1731.8	2042.8	2095.9	2113.6	2131.2	2146.5	2154.0
32.5°	270.5	371.6	965.7	1175.6	1734.3	2017.5	2055.4	2065.5	2090.8	2126.3	2138.8
35°	247.8	323.6	922.8	1147.8	1719.2	1977.1	2002.4	2012.4	2063.0	2116.1	2133.8
37.5°	225.0	288.2	867.2	1099.8	1696.4	1929.1	1946.7	1964.4	2042.8	2105.9	2126.3
40°	202.3	257.9	801.5	1046.7	1661.0	1870.9	1886.0	1913.8	2017.5	2090.8	2111.0
42.5°	184.6	232.6	730.7	991.0	1615.5	1805.2	1827.9	1868.3	1987.1	2065.5	2088.3
45°	169.4	207.3	654.8	915.2	1557.3	1736.8	1769.7	1825.4	1951.8	2027.7	2047.9
47.5°	154.2	189.6	576.4	836.8	1494.2	1668.6	1711.6	1774.8	1903.8	1977.1	1994.8
50°	141.5	171.9	498.1	753.4	1425.9	1595.3	1645.9	1711.6	1843.1	1911.3	1934.0
52.5°	131.5	156.8	424.7	670.0	1347.5	1519.4	1577.6	1645.9	1769.7	1835.4	1850.7
55°	121.3	144.1	361.5	581.5	1266.6	1438.5	1501.8	1567.5	1688.8	1744.5	1754.6
57.5°	116.3	134.0	308.5	498.1	1180.7	1347.5	1418.3	1479.0	1592.8	1635.7	1645.9
60°	108.7	126.4	268.0	427.3	1087.1	1261.5	1322.3	1382.9	1479.0	1514.4	1522.0
62.5°	101.1	121.3	237.6	359.0	991.0	1160.4	1221.1	1276.8	1357.6	1382.9	1393.0
65°	96.1	116.3	214.9	308.5	892.4	1054.3	1114.9	1162.9	1228.7	1254.0	1259.0
67.5°	91.0	111.3	197.2	265.4	793.8	948.1	993.6	1039.1	1089.6	1114.9	1117.5
70°	83.5	106.2	182.1	235.2	692.7	826.7	864.6	912.6	953.2	965.7	973.4
72.5°	78.4	98.6	171.9	212.3	589.0	710.4	745.8	773.6	809.1	821.7	821.7
75°	70.8	88.4	161.8	189.6	482.9	581.5	611.8	639.6	667.4	672.5	664.9
77.5°	63.2	78.4	139.0	159.3	376.7	460.2	485.5	500.6	523.3	528.4	531.0
80°	53.1	68.2	108.7	123.9	273.0	338.7	356.5	369.1	389.3	389.3	394.4
82.5°	40.4	53.1	78.4	88.4	184.6	232.6	247.8	255.4	268.0	268.0	268.0
85°	25.3	32.9	50.6	58.2	111.3	141.5	151.7	154.2	164.3	166.8	166.8
87.5°	12.6	17.7	32.9	35.4	58.2	73.3	73.3	78.4	78.4	75.9	73.3
90°	3.1	5.6	8.1	8.7	13.5	20.1	23.4	20.8	15.5	11.7	11.7
92.5°	12.4	33.3	54.2	59.5	83.6	115.7	131.8	115.4	82.9	58.5	56.2
95°	29.6	67.8	106.2	115.7	205.6	325.4	385.3	343.8	260.9	198.6	191.5
97.5°	51.1	85.0	118.7	127.2	277.0	476.7	576.5	550.3	497.8	458.5	445.0
100°	67.7	98.4	129.1	136.8	302.9	524.5	635.2	637.1	641.0	643.9	628.0
102.5°	81.9	110.6	139.1	146.3	314.8	539.5	651.9	685.2	752.1	802.2	788.5
105°	106.0	130.2	154.4	160.5	323.6	541.2	650.0	724.9	874.6	986.9	979.6
107.5°	130.6	153.2	175.7	181.4	325.3	517.1	613.0	717.4	926.3	1083.0	1084.7
110°	147.2	167.5	187.9	193.0	322.8	495.8	582.3	699.0	932.6	1107.7	1115.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	163.5	183.0	202.4	207.3	322.9	477.2	554.3	673.8	912.7	1091.9	1103.7
115°	188.1	206.1	224.0	228.5	325.9	455.8	520.7	635.8	866.0	1038.6	1055.0
117.5°	212.4	228.8	245.0	249.1	332.0	442.4	497.6	601.5	809.2	965.0	983.2
120°	226.6	241.9	257.3	261.2	336.8	437.8	488.3	583.3	773.1	915.4	933.1
122.5°	240.5	256.0	271.4	275.3	343.9	435.5	481.3	566.7	737.7	865.9	883.3
125°	261.7	275.8	289.9	293.4	353.5	433.6	473.6	546.2	691.4	800.3	816.2
127.5°	279.0	293.2	307.5	311.1	363.0	432.5	467.1	529.5	654.1	747.6	761.0
130°	288.2	303.6	318.9	322.7	370.0	433.1	464.6	520.1	631.2	714.4	726.9
132.5°	297.8	313.1	328.5	332.3	375.7	433.6	462.5	512.2	611.5	686.0	697.2
135°	311.9	325.9	339.8	343.3	381.9	433.2	458.9	500.5	583.7	646.0	655.7
137.5°	326.4	340.2	354.0	357.5	391.0	435.8	458.2	493.3	563.6	616.4	624.3
140°	338.4	351.2	363.8	367.0	396.7	436.2	456.1	486.4	547.2	592.7	600.1
142.5°	347.6	359.4	371.1	374.1	401.4	437.8	456.1	482.8	536.0	576.1	582.5
145°	361.8	372.1	382.4	385.0	407.7	437.8	453.0	474.8	518.4	551.2	556.0
147.5°	376.0	386.0	396.0	398.5	416.6	440.8	453.0	470.1	504.5	530.3	534.3
150°	385.3	394.3	403.3	405.6	421.4	442.4	453.0	467.5	496.5	518.2	521.4
152.5°	394.7	401.6	408.5	410.2	424.4	443.4	453.0	465.3	490.1	508.7	511.0
155°	409.0	414.0	419.0	420.3	431.2	445.7	453.0	462.8	482.6	497.3	498.9
157.5°	419.4	424.3	429.3	430.5	437.9	448.0	453.0	460.6	476.0	487.4	488.5
160°	426.5	430.3	434.1	435.1	441.0	449.0	453.0	459.6	472.7	482.6	483.2
162.5°	433.6	436.4	439.3	440.0	444.3	450.1	453.0	458.6	469.6	477.9	478.5
165°	441.2	443.8	446.4	447.1	449.1	451.7	453.0	457.0	464.8	470.8	471.5
167.5°	448.3	449.5	450.8	451.1	452.8	455.0	456.1	458.7	463.8	467.7	468.0
170°	453.0	454.2	455.5	455.8	455.9	456.0	456.1	458.7	463.8	467.7	467.7
172.5°	455.5	455.8	456.0	456.1	456.1	456.1	456.1	458.1	462.1	465.2	465.0
175°	458.9	458.9	458.9	458.9	458.0	456.7	456.1	457.4	460.0	461.8	461.8
177.5°	458.9	458.9	458.9	458.9	458.2	457.2	456.7	457.7	459.8	461.2	460.9
180°	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9	458.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	786.2	786.2
2.5°	839.3	834.3
5°	1079.6	1084.6
7.5°	1453.8	1451.2
10°	1807.6	1830.4
12.5°	2065.5	2070.6
15°	2222.3	2232.4
17.5°	2282.9	2285.5
20°	2285.5	2280.4
22.5°	2257.6	2252.7
25°	2224.8	2222.3
27.5°	2194.5	2197.0
30°	2181.8	2189.4
32.5°	2181.8	2194.5
35°	2186.9	2199.6
37.5°	2184.3	2199.6
40°	2174.3	2191.9
42.5°	2146.5	2159.1
45°	2103.5	2118.6
47.5°	2047.9	2057.9
50°	1977.1	1987.1
52.5°	1888.5	1891.1
55°	1782.3	1792.5
57.5°	1668.6	1671.1
60°	1542.2	1549.8
62.5°	1408.2	1408.2
65°	1266.6	1271.7
67.5°	1120.0	1132.7
70°	970.8	973.4
72.5°	824.2	824.2
75°	672.5	675.0
77.5°	528.4	528.4
80°	391.8	394.4
82.5°	270.5	275.6
85°	169.4	169.4
87.5°	78.4	70.8
90°	11.7	11.7
92.5°	46.8	37.5
95°	163.3	135.2
97.5°	391.4	337.8
100°	564.0	500.1
102.5°	733.8	679.0
105°	950.2	920.7
107.5°	1091.8	1099.0
110°	1145.9	1176.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1150.8	1197.8
115°	1120.2	1185.5
117.5°	1055.6	1128.0
120°	1003.4	1073.8
122.5°	952.7	1022.0
125°	880.2	944.1
127.5°	815.0	869.0
130°	776.7	826.5
132.5°	741.8	786.4
135°	694.1	732.6
137.5°	655.9	687.3
140°	629.5	659.0
142.5°	607.8	633.1
145°	575.2	594.3
147.5°	550.1	565.9
150°	534.4	547.2
152.5°	520.8	530.6
155°	505.4	511.7
157.5°	493.1	497.6
160°	485.7	488.3
162.5°	481.0	483.5
165°	474.1	476.7
167.5°	469.1	470.2
170°	467.7	467.7
172.5°	464.0	463.1
175°	461.8	461.8
177.5°	460.0	458.9
180°	458.9	458.9



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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	7.93	9.02	8.71	9.84	10.84	21.09	22.19	21.87	23.00	24.00
	3H	8.65	9.64	9.45	10.46	11.49	22.94	23.93	23.74	24.75	25.78
	4H	8.96	9.89	9.77	10.72	11.76	23.59	24.53	24.41	25.36	26.40
	6H	9.22	10.08	10.05	10.92	11.98	24.03	24.90	24.86	25.74	26.79
	8H	9.29	10.12	10.13	10.98	12.03	24.16	24.98	24.99	25.84	26.89
	12H	9.32	10.11	10.16	10.96	12.04	24.23	25.02	25.07	25.87	26.95
4H	2H	15.16	16.09	15.98	16.93	17.96	21.39	22.33	22.21	23.16	24.20
	3H	16.75	17.53	17.58	18.40	19.45	23.45	24.24	24.29	25.10	26.16
	4H	16.85	17.57	17.70	18.43	19.51	24.23	24.94	25.07	25.81	26.89
	6H	16.88	17.50	17.74	18.39	19.47	24.78	25.40	25.64	26.29	27.37
	8H	16.86	17.44	17.73	18.33	19.43	24.94	25.52	25.81	26.41	27.51
	12H	16.83	17.35	17.72	18.26	19.36	25.04	25.57	25.93	26.47	27.58
8H	4H	18.32	18.90	19.18	19.78	20.88	24.31	24.89	25.17	25.77	26.87
	6H	18.57	19.05	19.46	19.98	21.07	24.94	25.43	25.84	26.35	27.45
	8H	18.59	19.02	19.49	19.94	21.05	25.16	25.59	26.07	26.51	27.63
	12H	18.57	18.95	19.48	19.86	21.03	25.32	25.70	26.23	26.61	27.77
12H	4H	18.47	18.99	19.36	19.90	21.00	24.27	24.80	25.16	25.70	26.81
	6H	18.83	19.26	19.73	20.18	21.29	24.93	25.36	25.83	26.28	27.39
	8H	18.91	19.29	19.82	20.20	21.37	25.17	25.55	26.08	26.46	27.63