

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: P936894

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936894
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-B2750-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

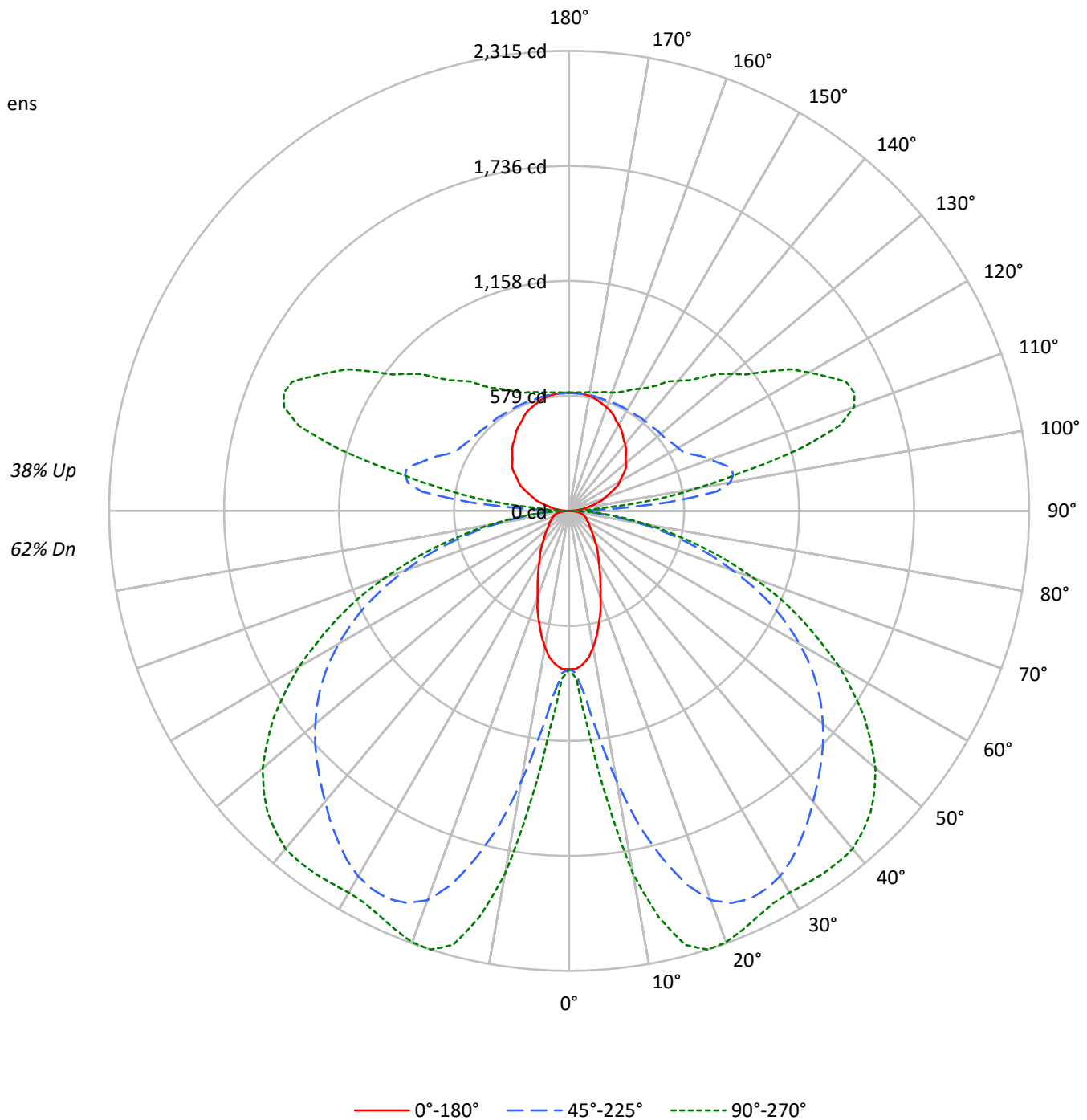
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10021.4 lumens
Efficiency: N/A
Efficacy: 110.9 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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CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-3500K

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°	3695	3695	3695
5°	3610	4270	4967
10°	3274	6225	8234
15°	2783	8133	9943
20°	2266	9425	10133
25°	1890	9863	9927
30°	1594	9925	9908
35°	1409	9760	10164
40°	1228	9546	10429
45°	1112	9390	10470
50°	1020	9248	10296
55°	977	9041	9840
60°	1000	8645	9120
65°	1040	8041	8129
70°	1108	7012	6868
75°	1228	5717	5359
80°	1342	3964	3611
85°	1192	2104	1849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10470 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.0	1.0
10°-20°	456.6	4.6
20°-30°	798.6	8.0
30°-40°	1028.1	10.3
40°-50°	1148.3	11.5
50°-60°	1099.8	11.0
60°-70°	871.6	8.7
70°-80°	512.5	5.1
80°-90°	144.7	1.4
90°-100°	290.1	2.9
100°-110°	762.7	7.6
110°-120°	790.9	7.9
120°-130°	634.4	6.3
130°-140°	497.8	5.0
140°-150°	382.1	3.8
150°-160°	275.1	2.7
160°-170°	168.3	1.7
170°-180°	56.9	0.6
0°-30°	1358.2	13.6
0°-40°	2386.3	23.8
0°-60°	4634.4	46.2
0°-90°	6163.2	61.5
90°-120°	1843.7	18.4
90°-150°	3357.9	33.5
90°-180°	3858.0	38.5
0°-180°	10021.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	776	832	937	1060	1099	72
15°	581	1073	1808	2192	2261	162
25°	371	1216	2154	2248	2251	171
35°	251	1163	2028	2143	2228	157
45°	172	927	1793	2054	2146	133
55°	123	589	1521	1767	1816	112
65°	97	312	1129	1270	1288	96
75°	72	192	620	681	684	75
85°	26	59	154	169	172	27
90°	4	11	30	15	15	5
95°	38	150	500	258	175	43
105°	137	208	843	1280	1194	146
115°	244	296	676	1347	1538	241
125°	340	381	614	1038	1225	301
135°	405	445	595	838	950	313
145°	469	499	588	715	771	294
155°	530	545	588	645	664	244
165°	572	580	588	611	618	162
175°	595	595	592	599	599	56
180°	595	595	595	595	595	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4	796.4
2.5°	796.4	796.4	801.6	804.1	809.2	811.7	816.9	822.0	837.4	839.9	845.1
5°	775.9	786.1	819.5	832.3	868.1	916.8	937.2	970.6	1039.6	1060.2	1073.0
7.5°	745.2	768.2	850.2	870.6	960.3	1088.3	1142.1	1213.8	1323.9	1377.7	1421.2
10°	696.5	745.2	891.2	939.8	1085.8	1280.3	1380.2	1480.1	1646.5	1720.8	1748.9
12.5°	642.7	722.1	934.7	1001.3	1211.2	1495.5	1615.8	1726.0	1915.4	2015.3	2030.6
15°	581.3	688.9	975.7	1073.0	1344.4	1674.7	1807.9	1943.6	2120.3	2192.0	2209.9
17.5°	527.5	663.3	1014.1	1116.5	1446.8	1836.1	1971.8	2084.4	2227.8	2276.5	2289.4
20°	461.0	622.3	1039.6	1172.8	1554.4	1953.9	2084.4	2171.5	2268.8	2299.5	2304.7
22.5°	412.3	578.7	1055.0	1193.3	1626.1	2025.6	2135.7	2204.8	2271.4	2281.6	2284.2
25°	371.3	530.0	1052.4	1216.4	1687.5	2069.1	2153.6	2204.8	2243.2	2248.4	2248.4
27.5°	332.9	476.3	1042.3	1221.5	1733.6	2079.4	2145.9	2181.8	2199.7	2209.9	2209.9
30°	299.6	425.1	1016.6	1211.2	1754.1	2069.1	2122.9	2140.8	2158.7	2174.0	2181.8
32.5°	274.0	376.5	978.2	1190.7	1756.7	2043.5	2081.9	2092.2	2117.7	2153.6	2166.4
35°	251.0	327.8	934.7	1162.6	1741.3	2002.5	2028.1	2038.4	2089.6	2143.3	2161.3
37.5°	227.9	292.0	878.3	1114.0	1718.2	1953.9	1971.8	1989.7	2069.1	2133.1	2153.6
40°	204.8	261.2	811.7	1060.2	1682.4	1895.0	1910.3	1938.5	2043.5	2117.7	2138.2
42.5°	186.9	235.6	740.0	1003.8	1636.4	1828.4	1851.5	1892.4	2012.7	2092.2	2115.2
45°	171.6	210.0	663.3	926.9	1577.4	1759.2	1792.6	1848.9	1976.9	2053.7	2074.2
47.5°	156.2	192.1	583.8	847.6	1513.4	1690.1	1733.6	1797.7	1928.2	2002.5	2020.5
50°	143.4	174.1	504.5	763.1	1444.3	1615.8	1667.1	1733.6	1866.8	1936.0	1958.9
52.5°	133.1	158.7	430.2	678.6	1364.8	1539.0	1597.9	1667.1	1792.6	1859.1	1874.4
55°	122.9	145.9	366.2	589.0	1283.0	1457.1	1521.0	1587.7	1710.6	1766.9	1777.1
57.5°	117.8	135.8	312.4	504.5	1195.8	1364.8	1436.5	1498.1	1613.3	1656.8	1667.1
60°	110.1	128.0	271.4	432.8	1101.2	1277.8	1339.3	1400.7	1498.1	1533.9	1541.6
62.5°	102.4	122.9	240.7	363.7	1003.8	1175.4	1236.8	1293.2	1375.1	1400.7	1411.0
65°	97.3	117.8	217.6	312.4	904.0	1067.8	1129.3	1177.9	1244.5	1270.2	1275.3
67.5°	92.2	112.7	199.7	268.9	804.1	960.3	1006.4	1052.4	1103.7	1129.3	1131.9
70°	84.5	107.6	184.4	238.2	701.7	837.4	875.8	924.4	965.4	978.2	985.9
72.5°	79.4	99.9	174.1	215.1	596.6	719.6	755.4	783.6	819.5	832.3	832.3
75°	71.7	89.6	163.9	192.1	489.2	589.0	619.7	647.9	676.1	681.2	673.5
77.5°	64.1	79.4	140.8	161.3	381.6	466.1	491.7	507.0	530.0	535.2	537.8
80°	53.8	69.2	110.1	125.5	276.6	343.1	361.0	373.8	394.4	394.4	399.5
82.5°	41.0	53.8	79.4	89.6	186.9	235.6	251.0	258.6	271.4	271.4	271.4
85°	25.6	33.3	51.3	58.9	112.7	143.4	153.7	156.2	166.5	169.0	169.0
87.5°	12.8	17.9	33.3	35.9	58.9	74.2	74.2	79.4	79.4	76.8	74.2
90°	4.0	7.2	10.4	11.1	17.5	26.1	30.3	26.9	20.3	15.2	15.2
92.5°	16.0	43.1	70.3	77.1	108.4	150.1	170.9	149.8	107.6	75.9	72.9
95°	38.4	88.1	137.8	150.2	266.7	422.0	499.7	445.9	338.4	257.7	248.5
97.5°	66.3	110.1	154.0	164.9	359.2	618.2	747.8	713.8	645.7	594.8	577.3
100°	87.9	127.6	167.3	177.3	392.9	680.3	824.0	826.6	831.5	835.2	814.4
102.5°	106.3	143.4	180.4	189.7	408.3	699.9	845.6	889.0	975.6	1040.5	1022.8
105°	137.4	168.8	200.3	208.1	419.9	702.1	843.2	940.3	1134.6	1280.2	1270.6
107.5°	169.4	198.6	227.9	235.3	421.9	670.8	795.3	930.7	1201.7	1404.9	1407.2
110°	190.9	217.3	243.9	250.5	418.8	643.1	755.3	906.8	1209.6	1436.7	1446.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	212.1	237.3	262.5	268.8	418.9	619.0	719.0	873.9	1183.9	1416.4	1431.7
115°	244.1	267.3	290.6	296.4	422.8	591.3	675.5	824.8	1123.4	1347.3	1368.4
117.5°	275.6	296.7	317.8	323.2	430.6	573.8	645.5	780.2	1049.7	1251.9	1275.3
120°	294.0	313.9	333.8	338.8	437.0	568.0	633.5	756.6	1002.8	1187.5	1210.3
122.5°	311.9	332.0	352.0	357.1	446.1	564.9	624.3	735.2	957.0	1123.3	1145.7
125°	339.5	357.8	376.1	380.6	458.5	562.4	614.3	708.5	896.9	1038.2	1058.9
127.5°	361.9	380.3	398.7	403.4	470.9	561.0	605.9	686.8	848.6	969.9	987.3
130°	373.8	393.7	413.7	418.6	479.9	561.8	602.7	674.7	818.7	926.7	942.8
132.5°	386.2	406.1	426.1	431.0	487.3	562.4	600.0	664.4	793.3	889.9	904.4
135°	404.7	422.8	440.8	445.4	495.3	561.8	595.2	649.1	757.1	838.0	850.5
137.5°	423.5	441.4	459.3	463.8	507.3	565.3	594.4	640.0	731.3	799.7	809.9
140°	439.0	455.5	472.0	476.2	514.6	565.9	591.6	631.0	709.8	768.9	778.4
142.5°	451.0	466.2	481.5	485.3	520.7	567.9	591.6	626.2	695.5	747.4	755.6
145°	469.4	482.7	496.0	499.3	528.8	568.0	587.6	615.9	672.6	715.0	721.2
147.5°	487.7	500.7	513.7	516.9	540.4	571.9	587.6	609.9	654.4	687.8	692.9
150°	499.7	511.4	523.2	526.1	546.6	573.9	587.6	606.4	644.1	672.3	676.5
152.5°	512.1	521.0	529.8	532.1	550.6	575.3	587.6	603.7	635.8	659.9	663.1
155°	530.4	537.0	543.6	545.3	559.4	578.2	587.6	600.4	625.9	645.1	647.2
157.5°	544.0	550.4	556.8	558.4	568.1	581.1	587.6	597.5	617.3	632.3	633.7
160°	553.2	558.2	563.2	564.4	572.2	582.5	587.6	596.1	613.1	625.9	626.7
162.5°	562.4	566.2	569.9	570.8	576.5	583.9	587.6	594.8	609.2	620.0	620.7
165°	572.4	575.8	579.1	579.9	582.5	585.9	587.6	592.7	603.0	610.8	611.6
167.5°	581.6	583.1	584.8	585.2	587.3	590.1	591.6	595.0	601.7	606.8	607.2
170°	587.6	589.2	590.8	591.2	591.3	591.5	591.6	595.0	601.7	606.8	606.8
172.5°	590.8	591.2	591.5	591.6	591.6	591.6	591.6	594.3	599.6	603.6	603.3
175°	595.2	595.2	595.2	595.2	594.0	592.3	591.6	593.2	596.6	599.1	599.1
177.5°	595.2	595.2	595.2	595.2	594.2	592.9	592.3	593.7	596.3	598.4	598.0
180°	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	796.4	796.4
2.5°	850.2	845.1
5°	1093.4	1098.6
7.5°	1472.4	1469.9
10°	1830.9	1854.0
12.5°	2092.2	2097.3
15°	2250.9	2261.2
17.5°	2312.3	2314.9
20°	2314.9	2309.8
22.5°	2286.7	2281.6
25°	2253.5	2250.9
27.5°	2222.7	2225.3
30°	2209.9	2217.7
32.5°	2209.9	2222.7
35°	2215.0	2227.8
37.5°	2212.5	2227.8
40°	2202.2	2220.2
42.5°	2174.0	2186.8
45°	2130.5	2145.9
47.5°	2074.2	2084.4
50°	2002.5	2012.7
52.5°	1912.9	1915.4
55°	1805.3	1815.6
57.5°	1690.1	1692.6
60°	1562.0	1569.8
62.5°	1426.4	1426.4
65°	1283.0	1288.1
67.5°	1134.4	1147.2
70°	983.3	985.9
72.5°	834.8	834.8
75°	681.2	683.7
77.5°	535.2	535.2
80°	396.9	399.5
82.5°	274.0	279.2
85°	171.6	171.6
87.5°	79.4	71.7
90°	15.2	15.2
92.5°	60.8	48.7
95°	211.9	175.4
97.5°	507.8	438.2
100°	731.6	648.6
102.5°	951.8	880.7
105°	1232.5	1194.3
107.5°	1416.4	1425.6
110°	1486.4	1526.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1492.7	1553.8
115°	1453.1	1537.8
117.5°	1369.3	1463.2
120°	1301.6	1392.8
122.5°	1235.8	1325.8
125°	1141.8	1224.7
127.5°	1057.3	1127.2
130°	1007.5	1072.1
132.5°	962.3	1020.2
135°	900.4	950.3
137.5°	850.8	891.6
140°	816.6	854.8
142.5°	788.4	821.2
145°	746.1	770.9
147.5°	713.6	734.2
150°	693.1	709.8
152.5°	675.7	688.3
155°	655.5	663.9
157.5°	639.6	645.5
160°	630.1	633.5
162.5°	623.9	627.1
165°	614.9	618.3
167.5°	608.5	610.0
170°	606.8	606.8
172.5°	602.0	600.8
175°	599.1	599.1
177.5°	596.6	595.2
180°	595.2	595.2



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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	6.53	7.55	7.37	8.43	9.52	19.71	20.73	20.55	21.61	22.70
	3H	7.25	8.17	8.10	9.05	10.17	21.56	22.48	22.41	23.36	24.48
	4H	7.55	8.43	8.42	9.31	10.44	22.21	23.09	23.08	23.97	25.10
	6H	7.81	8.62	8.70	9.51	10.66	22.65	23.46	23.54	24.35	25.50
	8H	7.89	8.66	8.78	9.57	10.71	22.78	23.55	23.67	24.46	25.60
	12H	7.91	8.64	8.81	9.55	10.72	22.85	23.59	23.75	24.49	25.66
4H	2H	13.76	14.64	14.64	15.53	16.66	20.00	20.88	20.88	21.76	22.89
	3H	15.35	16.08	16.24	17.00	18.14	22.06	22.80	22.95	23.71	24.86
	4H	15.45	16.12	16.35	17.03	18.20	22.84	23.51	23.74	24.42	25.59
	6H	15.47	16.05	16.38	16.99	18.16	23.39	23.97	24.30	24.91	26.08
	8H	15.45	15.99	16.37	16.93	18.11	23.55	24.09	24.47	25.03	26.22
	12H	15.42	15.91	16.35	16.86	18.05	23.65	24.14	24.59	25.10	26.29
8H	4H	16.91	17.45	17.83	18.38	19.57	22.91	23.45	23.83	24.39	25.57
	6H	17.16	17.61	18.10	18.58	19.77	23.55	24.00	24.49	24.97	26.16
	8H	17.18	17.58	18.13	18.54	19.75	23.77	24.17	24.72	25.13	26.34
	12H	17.15	17.51	18.11	18.47	19.72	23.92	24.28	24.88	25.23	26.49
12H	4H	17.06	17.55	18.00	18.50	19.69	22.87	23.36	23.81	24.31	25.51
	6H	17.42	17.82	18.37	18.78	19.99	23.53	23.93	24.49	24.90	26.10
	8H	17.50	17.85	18.46	18.81	20.06	23.77	24.12	24.73	25.08	26.33