

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: P936893

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936893
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-W2A-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

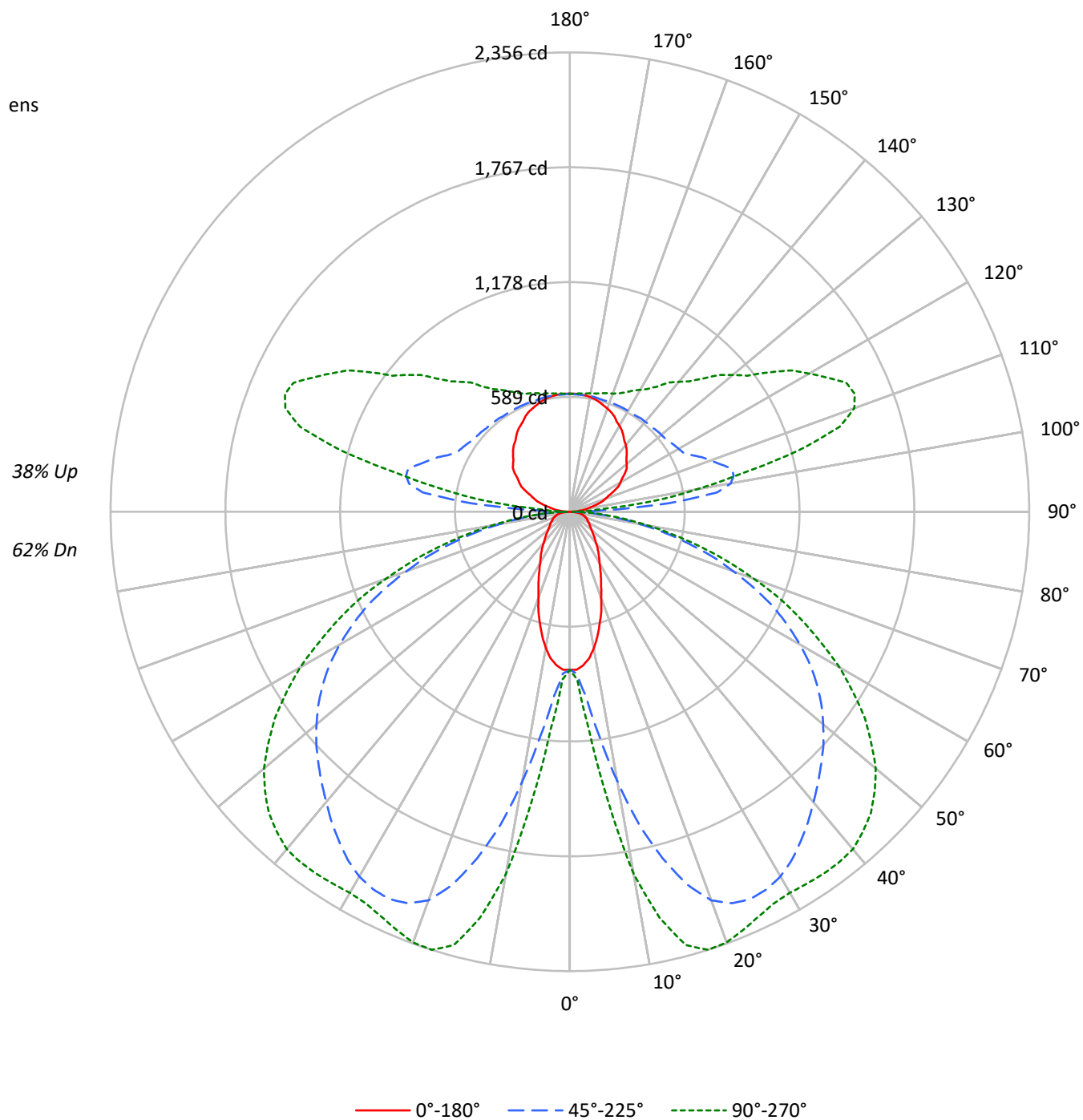
Lumens per Lamp: N/A
Luminaire Lumens: 10197.2 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

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

TEST NUMBER: P936893

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-8-3000K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3760	3760	3760
5°	3673	4346	5054
10°	3331	6335	8378
15°	2832	8276	10117
20°	2305	9590	10310
25°	1923	10036	10101
30°	1622	10099	10082
35°	1434	9932	10342
40°	1249	9713	10612
45°	1131	9554	10654
50°	1038	9410	10477
55°	993	9200	10013
60°	1017	8796	9279
65°	1058	8182	8272
70°	1128	7135	6988
75°	1250	5817	5453
80°	1365	4035	3675
85°	1211	2141	1881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10654 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	1.0
10°-20°	464.6	4.6
20°-30°	812.6	8.0
30°-40°	1046.1	10.3
40°-50°	1168.4	11.5
50°-60°	1119.1	11.0
60°-70°	886.9	8.7
70°-80°	521.5	5.1
80°-90°	147.2	1.4
90°-100°	295.2	2.9
100°-110°	776.1	7.6
110°-120°	804.7	7.9
120°-130°	645.5	6.3
130°-140°	506.5	5.0
140°-150°	388.8	3.8
150°-160°	280.0	2.7
160°-170°	171.3	1.7
170°-180°	57.9	0.6
0°-30°	1382.0	13.6
0°-40°	2428.1	23.8
0°-60°	4715.7	46.2
0°-90°	6271.3	61.5
90°-120°	1876.0	18.4
90°-150°	3416.8	33.5
90°-180°	3926.0	38.5
0°-180°	10197.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	790	847	954	1079	1118	73
15°	592	1092	1840	2230	2301	165
25°	378	1238	2191	2288	2290	174
35°	255	1183	2064	2181	2267	159
45°	175	943	1824	2090	2184	135
55°	125	599	1548	1798	1848	114
65°	99	318	1149	1292	1311	98
75°	73	195	630	693	696	76
85°	26	60	156	172	175	28
90°	4	11	31	16	16	5
95°	39	153	508	262	178	43
105°	140	212	858	1303	1215	148
115°	248	302	687	1371	1565	245
125°	346	387	625	1056	1246	307
135°	412	453	606	853	967	319
145°	478	508	598	728	784	299
155°	540	555	598	656	676	248
165°	582	590	598	622	629	164
175°	606	606	602	610	610	57
180°	606	606	606	606	606	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4
2.5°	810.4	810.4	815.6	818.2	823.4	826.0	831.2	836.4	852.1	854.7	859.9
5°	789.5	799.9	833.9	846.9	883.4	932.9	953.7	987.6	1057.9	1078.8	1091.8
7.5°	758.2	781.7	865.1	885.9	977.1	1107.4	1162.1	1235.1	1347.2	1401.9	1446.2
10°	708.7	758.2	906.8	956.3	1104.8	1302.8	1404.5	1506.1	1675.4	1751.0	1779.6
12.5°	654.0	734.8	951.1	1018.8	1232.5	1521.7	1644.2	1756.3	1949.0	2050.7	2066.3
15°	591.5	700.9	992.8	1091.8	1368.0	1704.1	1839.6	1977.7	2157.5	2230.4	2248.7
17.5°	536.8	674.9	1031.8	1136.1	1472.2	1868.3	2006.4	2121.0	2266.9	2316.4	2329.5
20°	469.0	633.2	1057.9	1193.4	1581.6	1988.2	2121.0	2209.6	2308.6	2339.9	2345.1
22.5°	419.5	588.8	1073.6	1214.3	1654.6	2061.1	2173.1	2243.4	2311.3	2321.6	2324.3
25°	377.8	539.3	1070.9	1237.7	1717.1	2105.4	2191.4	2243.4	2282.6	2287.8	2287.8
27.5°	338.7	484.6	1060.5	1243.0	1764.1	2115.9	2183.6	2220.1	2238.3	2248.7	2248.7
30°	304.9	432.6	1034.4	1232.5	1784.9	2105.4	2160.1	2178.4	2196.6	2212.2	2220.1
32.5°	278.8	383.1	995.4	1211.6	1787.5	2079.4	2118.4	2128.9	2154.9	2191.4	2204.4
35°	255.4	333.6	951.1	1183.0	1771.8	2037.7	2063.7	2074.1	2126.2	2180.9	2199.2
37.5°	231.9	297.1	893.7	1133.5	1748.4	1988.2	2006.4	2024.7	2105.4	2170.5	2191.4
40°	208.4	265.8	826.0	1078.8	1711.9	1928.2	1943.8	1972.5	2079.4	2154.9	2175.7
42.5°	190.2	239.7	753.0	1021.4	1665.1	1860.5	1884.0	1925.6	2048.0	2128.9	2152.3
45°	174.6	213.7	674.9	943.2	1605.1	1790.1	1824.0	1881.3	2011.5	2089.7	2110.6
47.5°	158.9	195.4	594.1	862.5	1539.9	1719.8	1764.1	1829.2	1962.0	2037.7	2055.9
50°	145.9	177.2	513.3	776.5	1469.6	1644.2	1696.3	1764.1	1899.5	1969.9	1993.3
52.5°	135.5	161.5	437.8	690.5	1388.8	1566.0	1625.9	1696.3	1824.0	1891.7	1907.3
55°	125.0	148.5	372.6	599.3	1305.5	1482.6	1547.7	1615.6	1740.6	1797.9	1808.3
57.5°	119.9	138.1	317.9	513.3	1216.8	1388.8	1461.7	1524.4	1641.6	1685.9	1696.3
60°	112.0	130.3	276.2	440.3	1120.5	1300.2	1362.8	1425.3	1524.4	1560.8	1568.6
62.5°	104.2	125.0	244.9	370.0	1021.4	1196.0	1258.5	1315.9	1399.2	1425.3	1435.7
65°	99.0	119.9	221.5	317.9	919.8	1086.6	1149.1	1198.6	1266.3	1292.4	1297.7
67.5°	93.8	114.7	203.2	273.6	818.2	977.1	1024.1	1070.9	1123.1	1149.1	1151.7
70°	86.0	109.4	187.6	242.4	714.0	852.1	891.1	940.6	982.4	995.4	1003.2
72.5°	80.8	101.7	177.2	218.9	607.1	732.2	768.7	797.4	833.9	846.9	846.9
75°	73.0	91.2	166.7	195.4	497.7	599.3	630.5	659.2	687.9	693.2	685.3
77.5°	65.2	80.8	143.3	164.2	388.3	474.3	500.3	515.9	539.3	544.6	547.2
80°	54.7	70.4	112.0	127.7	281.4	349.1	367.4	380.4	401.3	401.3	406.5
82.5°	41.7	54.7	80.8	91.2	190.2	239.7	255.4	263.2	276.2	276.2	276.2
85°	26.0	33.9	52.2	59.9	114.7	145.9	156.4	158.9	169.4	172.0	172.0
87.5°	13.0	18.2	33.9	36.5	59.9	75.5	75.5	80.8	80.8	78.2	75.5
90°	4.0	7.3	10.6	11.3	17.8	26.5	30.9	27.4	20.6	15.5	15.5
92.5°	16.3	43.9	71.6	78.5	110.3	152.7	173.9	152.4	109.4	77.2	74.1
95°	39.0	89.6	140.2	152.8	271.3	429.4	508.5	453.8	344.3	262.2	252.9
97.5°	67.4	112.0	156.7	167.8	365.5	629.1	760.9	726.3	657.1	605.2	587.5
100°	89.4	129.9	170.3	180.4	399.8	692.3	838.5	841.1	846.1	849.8	828.7
102.5°	108.2	145.9	183.6	193.1	415.5	712.2	860.5	904.6	992.7	1058.8	1040.7
105°	139.8	171.8	203.8	211.8	427.2	714.5	858.0	956.8	1154.5	1302.7	1292.9
107.5°	172.4	202.1	231.9	239.4	429.3	682.6	809.2	947.1	1222.7	1429.5	1431.9
110°	194.2	221.2	248.2	254.9	426.1	654.4	768.6	922.7	1230.8	1461.9	1472.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	215.8	241.5	267.1	273.5	426.2	629.9	731.6	889.3	1204.7	1441.2	1456.8
115°	248.4	272.0	295.7	301.6	430.2	601.7	687.3	839.3	1143.1	1370.9	1392.4
117.5°	280.4	301.9	323.4	328.8	438.2	583.9	656.8	793.9	1068.1	1273.8	1297.7
120°	299.2	319.4	339.7	344.7	444.7	578.0	644.6	769.9	1020.4	1208.3	1231.5
122.5°	317.4	337.8	358.2	363.3	454.0	574.8	635.3	748.1	973.8	1143.0	1165.8
125°	345.5	364.0	382.7	387.3	466.6	572.3	625.1	721.0	912.6	1056.4	1077.5
127.5°	368.3	387.0	405.7	410.5	479.2	570.8	616.5	698.9	863.4	986.9	1004.6
130°	380.4	400.6	420.9	426.0	488.4	571.7	613.3	686.6	833.1	942.9	959.4
132.5°	393.0	413.2	433.5	438.6	495.9	572.3	610.5	676.1	807.2	905.5	920.2
135°	411.8	430.2	448.5	453.2	503.9	571.7	605.6	660.5	770.4	852.7	865.4
137.5°	430.9	449.1	467.4	471.9	516.2	575.2	604.8	651.3	744.1	813.7	824.1
140°	446.7	463.5	480.3	484.5	523.7	575.8	602.0	642.1	722.2	782.4	792.1
142.5°	458.9	474.4	489.9	493.8	529.9	577.9	602.0	637.2	707.7	760.5	768.9
145°	477.6	491.1	504.7	508.1	538.1	578.0	597.9	626.7	684.4	727.6	733.9
147.5°	496.3	509.5	522.7	525.9	549.9	581.9	597.9	620.6	665.8	699.9	705.1
150°	508.5	520.4	532.3	535.3	556.2	584.0	597.9	617.0	655.4	684.1	688.3
152.5°	521.1	530.2	539.1	541.4	560.2	585.4	597.9	614.3	646.9	671.5	674.7
155°	539.7	546.4	553.1	554.8	569.2	588.3	597.9	610.9	636.9	656.4	658.5
157.5°	553.5	560.0	566.6	568.2	578.1	591.3	597.9	608.0	628.2	643.4	644.8
160°	562.9	568.0	573.1	574.3	582.2	592.7	597.9	606.6	623.8	636.9	637.7
162.5°	572.3	576.1	579.9	580.9	586.6	594.2	597.9	605.2	619.9	630.8	631.6
165°	582.4	585.9	589.2	590.1	592.7	596.1	597.9	603.1	613.6	621.5	622.4
167.5°	591.8	593.4	595.1	595.4	597.6	600.5	602.0	605.4	612.3	617.4	617.8
170°	597.9	599.5	601.2	601.6	601.7	601.9	602.0	605.4	612.3	617.4	617.4
172.5°	601.2	601.6	601.9	602.0	602.0	602.0	602.0	604.7	610.1	614.2	613.9
175°	605.6	605.6	605.6	605.6	604.4	602.7	602.0	603.6	607.1	609.6	609.6
177.5°	605.6	605.6	605.6	605.6	604.6	603.3	602.7	604.1	606.8	608.9	608.5
180°	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	810.4	810.4
2.5°	865.1	859.9
5°	1112.6	1117.8
7.5°	1498.2	1495.7
10°	1863.0	1886.5
12.5°	2128.9	2134.1
15°	2290.4	2300.8
17.5°	2352.9	2355.6
20°	2355.6	2350.3
22.5°	2326.9	2321.6
25°	2293.0	2290.4
27.5°	2261.7	2264.3
30°	2248.7	2256.6
32.5°	2248.7	2261.7
35°	2253.9	2266.9
37.5°	2251.3	2266.9
40°	2240.9	2259.1
42.5°	2212.2	2225.2
45°	2167.9	2183.6
47.5°	2110.6	2121.0
50°	2037.7	2048.0
52.5°	1946.5	1949.0
55°	1837.0	1847.5
57.5°	1719.8	1722.3
60°	1589.4	1597.3
62.5°	1451.4	1451.4
65°	1305.5	1310.7
67.5°	1154.3	1167.3
70°	1000.6	1003.2
72.5°	849.4	849.4
75°	693.2	695.7
77.5°	544.6	544.6
80°	403.9	406.5
82.5°	278.8	284.1
85°	174.6	174.6
87.5°	80.8	73.0
90°	15.5	15.5
92.5°	61.8	49.6
95°	215.6	178.5
97.5°	516.7	445.9
100°	744.4	660.0
102.5°	968.4	896.2
105°	1254.1	1215.2
107.5°	1441.2	1450.6
110°	1512.5	1553.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1518.9	1581.1
115°	1478.6	1564.8
117.5°	1393.3	1488.9
120°	1324.4	1417.3
122.5°	1257.4	1349.0
125°	1161.8	1246.2
127.5°	1075.8	1147.0
130°	1025.1	1090.9
132.5°	979.2	1038.1
135°	916.2	967.0
137.5°	865.7	907.2
140°	830.9	869.8
142.5°	802.2	835.6
145°	759.2	784.5
147.5°	726.1	747.1
150°	705.3	722.2
152.5°	687.5	700.4
155°	667.0	675.5
157.5°	650.9	656.8
160°	641.2	644.6
162.5°	634.9	638.1
165°	625.7	629.2
167.5°	619.2	620.7
170°	617.4	617.4
172.5°	612.6	611.3
175°	609.6	609.6
177.5°	607.1	605.6
180°	605.6	605.6

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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	6.59	7.62	7.43	8.49	9.58	19.77	20.79	20.61	21.67	22.76
	3H	7.31	8.23	8.16	9.11	10.23	21.62	22.54	22.48	23.42	24.54
	4H	7.61	8.49	8.49	9.38	10.50	22.27	23.15	23.14	24.03	25.16
	6H	7.87	8.68	8.76	9.57	10.72	22.71	23.52	23.60	24.41	25.56
	8H	7.95	8.72	8.84	9.63	10.77	22.84	23.61	23.73	24.52	25.66
	12H	7.97	8.70	8.87	9.61	10.78	22.91	23.65	23.81	24.55	25.72
4H	2H	13.82	14.70	14.70	15.59	16.72	20.06	20.94	20.94	21.82	22.95
	3H	15.41	16.14	16.30	17.06	18.21	22.12	22.86	23.01	23.77	24.92
	4H	15.51	16.18	16.41	17.09	18.26	22.90	23.57	23.80	24.48	25.65
	6H	15.53	16.11	16.44	17.05	18.22	23.45	24.03	24.36	24.97	26.14
	8H	15.51	16.05	16.43	16.99	18.17	23.61	24.16	24.53	25.09	26.28
	12H	15.48	15.97	16.41	16.92	18.11	23.71	24.20	24.65	25.16	26.35
8H	4H	16.97	17.51	17.89	18.44	19.63	22.97	23.51	23.89	24.45	25.63
	6H	17.22	17.67	18.16	18.64	19.83	23.61	24.06	24.55	25.03	26.22
	8H	17.24	17.64	18.19	18.60	19.81	23.83	24.23	24.79	25.20	26.40
	12H	17.22	17.57	18.17	18.53	19.78	23.98	24.34	24.94	25.29	26.55
12H	4H	17.12	17.61	18.06	18.56	19.75	22.93	23.42	23.87	24.37	25.57
	6H	17.48	17.88	18.43	18.84	20.05	23.59	23.99	24.55	24.96	26.16
	8H	17.56	17.91	18.52	18.87	20.12	23.83	24.18	24.79	25.14	26.39