

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: P936678

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936678
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

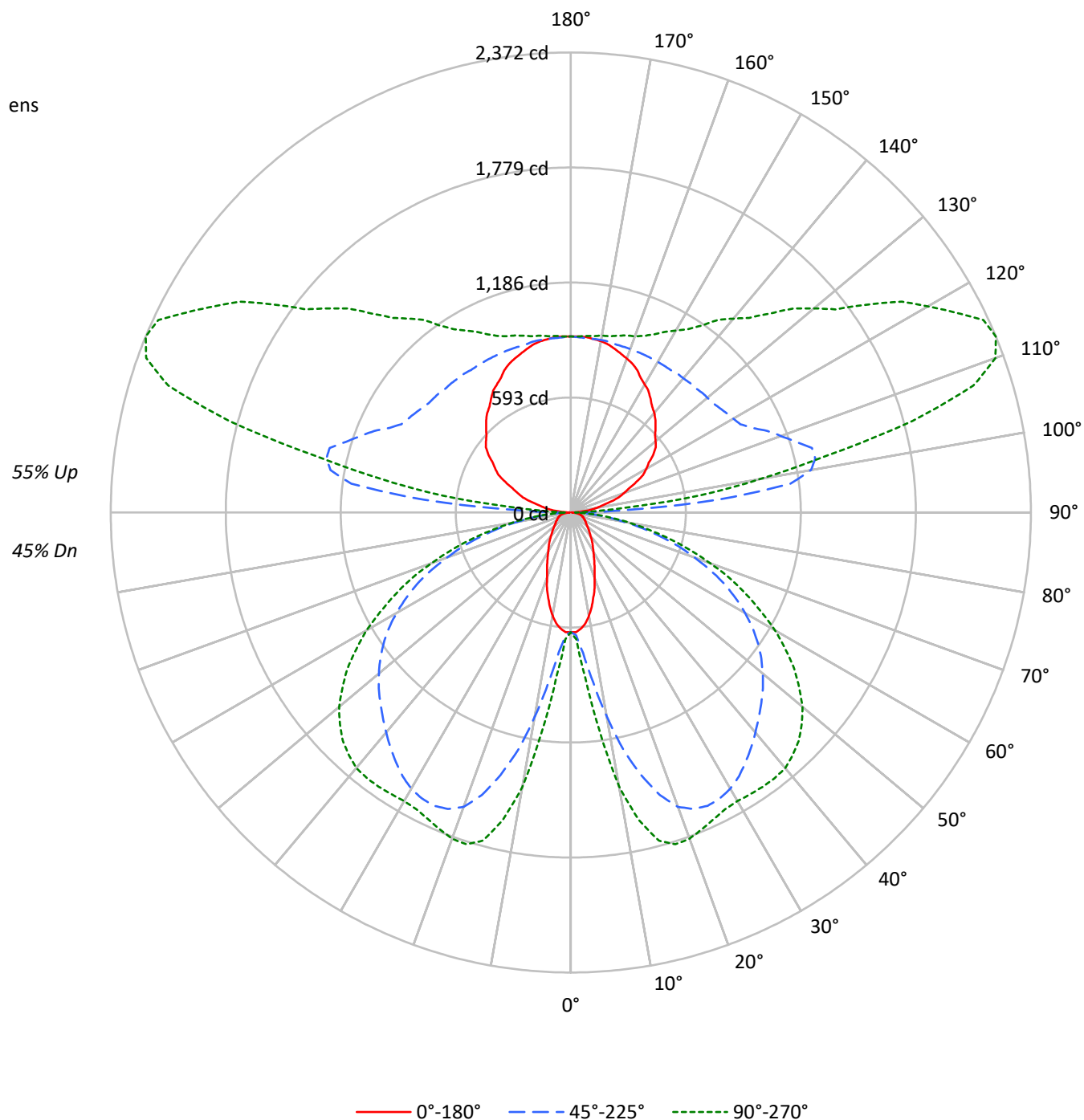
Lumens per Lamp: N/A
Luminaire Lumens: 10665.6 lumens
Efficiency: N/A
Efficacy: 125.2 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 85.2
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-050D-B2750-1D-UNV-W2A-W-12-3000K

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	106	106	106	106	97	97	97	97		80	80	80		65	65	65		51	51	51
1	96	92	88	84	88	84	81	77		70	67	65		57	55	53		45	43	42
2	87	79	73	68	79	73	67	63		60	56	53		49	46	44		39	37	35
3	79	69	62	56	72	64	57	52		53	48	44		43	39	36		34	31	29
4	72	61	53	47	66	56	49	43		47	41	37		38	34	31		30	27	25
5	66	54	46	39	60	50	42	37		41	36	31		34	29	26		26	23	21
6	60	48	40	34	55	44	37	31		37	31	27		30	26	22		24	21	18
7	56	43	35	29	51	40	32	27		33	28	23		27	23	20		21	18	16
8	51	39	31	26	47	36	29	24		30	25	21		25	20	17		20	16	14
9	48	35	28	23	44	33	26	21		27	22	18		23	18	15		18	15	12
10	45	32	25	20	41	30	23	19		25	20	16		21	17	14		17	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1908	1908	1908
5°	1865	2206	2565
10°	1692	3217	4253
15°	1439	4204	5135
20°	1172	4873	5234
25°	978	5100	5127
30°	825	5134	5118
35°	730	5050	5250
40°	636	4941	5387
45°	577	4861	5408
50°	529	4790	5318
55°	507	4685	5082
60°	520	4481	4710
65°	542	4171	4199
70°	579	3640	3547
75°	643	2970	2768
80°	709	2062	1865
85°	642	1096	954

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5408 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	0.7
10°-20°	353.7	3.3
20°-30°	618.7	5.8
30°-40°	796.5	7.5
40°-50°	889.7	8.3
50°-60°	852.1	8.0
60°-70°	675.3	6.3
70°-80°	397.1	3.7
80°-90°	113.8	1.1
90°-100°	442.8	4.2
100°-110°	1164.2	10.9
110°-120°	1207.1	11.3
120°-130°	968.3	9.1
130°-140°	759.7	7.1
140°-150°	583.1	5.5
150°-160°	420.0	3.9
160°-170°	256.9	2.4
170°-180°	86.8	0.8
0°-30°	1052.3	9.9
0°-40°	1848.8	17.3
0°-60°	3590.5	33.7
0°-90°	4776.7	44.8
90°-120°	2814.0	26.4
90°-150°	5125.1	48.1
90°-180°	5889.0	55.2
0°-180°	10665.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	617	617	617	617	617	
5°	601	645	726	821	851	55
15°	450	831	1401	1698	1752	125
25°	288	942	1668	1742	1744	133
35°	194	901	1571	1661	1726	121
45°	133	718	1389	1591	1663	103
55°	95	456	1178	1369	1407	87
65°	75	242	875	984	998	75
75°	56	149	480	528	530	58
85°	20	46	119	131	133	21
90°	6	17	46	23	23	6
95°	59	229	763	393	268	65
105°	210	318	1287	1954	1823	222
115°	372	452	1031	2056	2347	368
125°	518	581	938	1584	1869	460
135°	618	680	908	1279	1450	478
145°	716	762	897	1091	1177	449
155°	810	832	897	985	1013	372
165°	874	885	897	932	944	247
175°	908	908	903	914	914	86
180°	908	908	908	908	908	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
2.5°	617.0	617.0	621.0	623.0	626.9	628.9	632.9	636.9	648.8	650.8	654.7
5°	601.2	609.1	634.9	644.7	672.6	710.2	726.1	751.9	805.5	821.3	831.3
7.5°	577.3	595.1	658.6	674.5	744.0	843.2	884.8	940.4	1025.7	1067.3	1101.1
10°	539.6	577.3	690.4	728.2	841.2	992.0	1069.3	1146.7	1275.7	1333.3	1355.1
12.5°	497.9	559.5	724.1	775.7	938.4	1158.6	1251.9	1337.2	1484.0	1561.4	1573.3
15°	450.4	533.7	755.9	831.3	1041.6	1297.5	1400.7	1505.8	1642.8	1698.3	1712.2
17.5°	408.7	513.8	785.6	865.0	1121.0	1422.5	1527.6	1615.0	1726.1	1763.8	1773.7
20°	357.1	482.2	805.5	908.7	1204.3	1513.8	1615.0	1682.4	1757.8	1781.6	1785.5
22.5°	319.5	448.3	817.4	924.6	1259.8	1569.3	1654.6	1708.2	1759.8	1767.7	1769.7
25°	287.7	410.7	815.4	942.4	1307.4	1603.0	1668.5	1708.2	1737.9	1742.0	1742.0
27.5°	257.9	369.1	807.4	946.4	1343.1	1611.0	1662.6	1690.3	1704.2	1712.2	1712.2
30°	232.1	329.3	787.6	938.4	1359.0	1603.0	1644.7	1658.6	1672.5	1684.4	1690.3
32.5°	212.3	291.7	757.8	922.5	1361.0	1583.2	1613.0	1620.9	1640.7	1668.5	1678.5
35°	194.4	254.0	724.1	900.7	1349.1	1551.5	1571.3	1579.3	1618.9	1660.6	1674.4
37.5°	176.6	226.2	680.5	863.0	1331.2	1513.8	1527.6	1541.5	1603.0	1652.6	1668.5
40°	158.7	202.3	628.9	821.3	1303.5	1468.2	1480.1	1501.9	1583.2	1640.7	1656.6
42.5°	144.8	182.5	573.4	777.8	1267.8	1416.6	1434.4	1466.2	1559.4	1620.9	1638.7
45°	132.9	162.7	513.8	718.2	1222.1	1362.9	1388.8	1432.5	1531.7	1591.1	1607.0
47.5°	121.0	148.8	452.4	656.7	1172.6	1309.4	1343.1	1392.7	1493.9	1551.5	1565.4
50°	111.1	134.9	390.9	591.2	1118.9	1251.9	1291.6	1343.1	1446.4	1499.9	1517.7
52.5°	103.1	123.1	333.3	525.7	1057.5	1192.4	1238.0	1291.6	1388.8	1440.3	1452.3
55°	95.2	113.1	283.7	456.3	994.0	1128.9	1178.5	1230.0	1325.3	1369.0	1376.9
57.5°	91.3	105.1	242.1	390.9	926.5	1057.5	1113.0	1160.6	1249.9	1283.7	1291.6
60°	85.3	99.2	210.3	335.3	853.1	990.0	1037.7	1085.2	1160.6	1188.4	1194.3
62.5°	79.4	95.2	186.5	281.7	777.8	910.7	958.3	1001.9	1065.4	1085.2	1093.2
65°	75.4	91.3	168.6	242.1	700.4	827.4	875.0	912.6	964.2	984.0	988.0
67.5°	71.4	87.3	154.7	208.3	623.0	744.0	779.7	815.4	855.1	875.0	876.9
70°	65.5	83.3	142.9	184.5	543.6	648.8	678.6	716.2	748.0	757.8	763.9
72.5°	61.5	77.4	134.9	166.6	462.2	557.5	585.3	607.1	634.9	644.7	644.7
75°	55.5	69.4	127.0	148.8	378.9	456.3	480.1	502.0	523.8	527.7	521.8
77.5°	49.6	61.5	109.2	125.0	295.6	361.1	380.9	392.8	410.7	414.6	416.6
80°	41.7	53.5	85.3	97.2	214.3	265.8	279.7	289.7	305.6	305.6	309.5
82.5°	31.7	41.7	61.5	69.4	144.8	182.5	194.4	200.4	210.3	210.3	210.3
85°	19.8	25.8	39.6	45.7	87.3	111.1	119.0	121.0	129.0	130.9	130.9
87.5°	10.0	13.9	25.8	27.8	45.7	57.6	57.6	61.5	61.5	59.6	57.6
90°	6.1	10.9	15.9	17.1	26.8	39.8	46.3	41.2	30.9	23.2	23.2
92.5°	24.4	65.8	107.3	117.6	165.4	229.0	260.9	228.7	164.2	115.9	111.2
95°	58.6	134.4	210.3	229.2	407.0	644.2	762.7	680.5	516.4	393.2	379.2
97.5°	101.2	168.1	235.1	251.8	548.3	943.6	1141.3	1089.4	985.6	907.8	881.3
100°	134.1	194.8	255.5	270.7	599.7	1038.4	1257.7	1261.5	1269.1	1274.8	1243.1
102.5°	162.2	218.8	275.4	289.6	623.3	1068.2	1290.7	1356.7	1489.0	1588.2	1561.0
105°	209.7	257.6	305.6	317.6	640.7	1071.6	1287.0	1435.2	1731.6	1954.0	1939.4
107.5°	258.5	303.2	348.0	359.1	644.1	1024.0	1213.9	1420.6	1834.2	2144.3	2147.8
110°	291.5	331.8	372.2	382.3	639.1	981.7	1152.9	1384.0	1846.3	2193.0	2208.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	323.7	362.2	400.6	410.3	639.3	944.7	1097.4	1334.0	1807.0	2161.9	2185.2
115°	372.5	408.0	443.5	452.4	645.2	902.4	1031.0	1258.8	1714.6	2056.4	2088.7
117.5°	420.6	452.9	485.1	493.2	657.2	875.9	985.2	1190.9	1602.2	1910.7	1946.5
120°	448.7	479.1	509.4	517.0	666.9	867.0	967.0	1154.9	1530.7	1812.6	1847.4
122.5°	476.1	506.8	537.4	545.1	681.0	862.3	952.9	1122.1	1460.6	1714.4	1748.7
125°	518.2	546.1	574.0	581.0	700.0	858.4	937.7	1081.4	1368.9	1584.5	1616.2
127.5°	552.4	580.6	608.8	615.8	718.8	856.1	924.9	1048.3	1295.1	1480.3	1507.0
130°	570.7	601.1	631.3	638.9	732.6	857.5	920.0	1029.9	1249.7	1414.4	1439.1
132.5°	589.5	619.9	650.3	657.9	743.8	858.4	915.7	1014.1	1210.8	1358.3	1380.4
135°	617.6	645.2	672.8	679.7	756.0	857.6	908.4	990.8	1155.6	1279.1	1298.2
137.5°	646.2	673.6	701.0	707.8	774.3	862.9	907.2	976.8	1116.2	1220.6	1236.1
140°	670.0	695.2	720.4	726.7	785.4	863.7	902.9	963.0	1083.4	1173.6	1188.2
142.5°	688.3	711.6	735.0	740.8	794.8	866.9	902.9	955.7	1061.4	1140.7	1153.2
145°	716.3	736.6	757.0	762.1	807.0	866.9	896.9	940.1	1026.5	1091.3	1100.8
147.5°	744.4	764.2	784.0	788.9	824.9	872.9	896.9	930.9	998.9	1049.9	1057.8
150°	762.7	780.5	798.5	802.9	834.3	876.0	896.9	925.6	982.9	1026.0	1032.4
152.5°	781.6	795.1	808.7	812.1	840.4	878.0	896.9	921.4	970.4	1007.2	1012.0
155°	809.6	819.7	829.7	832.2	853.8	882.5	896.9	916.4	955.3	984.6	987.8
157.5°	830.4	840.2	849.8	852.3	867.2	887.0	896.9	912.0	942.3	965.1	967.4
160°	844.4	852.0	859.6	861.5	873.3	889.0	896.9	909.9	935.8	955.3	956.6
162.5°	858.4	864.1	869.8	871.2	879.8	891.1	896.9	907.8	929.7	946.2	947.3
165°	873.7	878.8	883.9	885.2	889.1	894.3	896.9	904.8	920.4	932.2	933.4
167.5°	887.7	890.1	892.5	893.1	896.4	900.7	902.9	908.0	918.4	926.1	926.6
170°	896.9	899.2	901.7	902.3	902.5	902.8	902.9	908.0	918.4	926.1	926.1
172.5°	901.7	902.2	902.8	902.9	902.9	902.9	902.9	906.9	915.1	921.2	920.7
175°	908.4	908.4	908.4	908.4	906.5	904.1	902.9	905.4	910.7	914.5	914.5
177.5°	908.4	908.4	908.4	908.4	907.0	905.1	904.2	906.2	910.3	913.3	912.7
180°	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	617.0	617.0
2.5°	658.6	654.7
5°	847.2	851.1
7.5°	1140.8	1138.8
10°	1418.6	1436.4
12.5°	1620.9	1624.8
15°	1743.9	1751.8
17.5°	1791.6	1793.5
20°	1793.5	1789.6
22.5°	1771.6	1767.7
25°	1745.9	1743.9
27.5°	1722.0	1724.1
30°	1712.2	1718.1
32.5°	1712.2	1722.0
35°	1716.1	1726.1
37.5°	1714.2	1726.1
40°	1706.2	1720.1
42.5°	1684.4	1694.3
45°	1650.7	1662.6
47.5°	1607.0	1615.0
50°	1551.5	1559.4
52.5°	1482.1	1484.0
55°	1398.7	1406.6
57.5°	1309.4	1311.4
60°	1210.2	1216.1
62.5°	1105.1	1105.1
65°	994.0	997.9
67.5°	878.9	888.8
70°	761.9	763.9
72.5°	646.8	646.8
75°	527.7	529.7
77.5°	414.6	414.6
80°	307.5	309.5
82.5°	212.3	216.2
85°	132.9	132.9
87.5°	61.5	55.5
90°	23.2	23.2
92.5°	92.8	74.3
95°	323.4	267.6
97.5°	775.0	668.8
100°	1116.6	990.1
102.5°	1452.7	1344.3
105°	1881.2	1822.9
107.5°	2161.8	2175.9
110°	2268.8	2329.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2278.4	2371.6
115°	2218.0	2347.3
117.5°	2089.8	2233.2
120°	1986.7	2125.9
122.5°	1886.1	2023.5
125°	1742.7	1869.3
127.5°	1613.7	1720.5
130°	1537.8	1636.4
132.5°	1468.7	1557.1
135°	1374.3	1450.4
137.5°	1298.5	1360.8
140°	1246.4	1304.7
142.5°	1203.4	1253.5
145°	1138.7	1176.7
147.5°	1089.1	1120.6
150°	1057.9	1083.4
152.5°	1031.3	1050.5
155°	1000.6	1013.3
157.5°	976.2	985.2
160°	961.8	967.0
162.5°	952.3	957.2
165°	938.7	943.8
167.5°	928.8	931.0
170°	926.1	926.1
172.5°	918.9	917.0
175°	914.5	914.5
177.5°	910.6	908.4
180°	908.4	908.4

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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	2.76	3.61	3.75	4.62	5.96	15.95	16.80	16.95	17.81	19.15
	3H	3.47	4.23	4.47	5.25	6.61	17.80	18.56	18.80	19.58	20.94
	4H	3.76	4.49	4.78	5.51	6.88	18.44	19.17	19.46	20.19	21.56
	6H	4.01	4.68	5.04	5.71	7.09	18.88	19.55	19.91	20.57	21.95
	8H	4.08	4.72	5.11	5.76	7.14	19.00	19.64	20.03	20.68	22.06
	12H	4.10	4.70	5.13	5.74	7.14	19.07	19.68	20.11	20.71	22.12
4H	2H	9.98	10.71	11.01	11.73	13.10	16.22	16.95	17.25	17.97	19.34
	3H	11.55	12.15	12.58	13.20	14.59	18.27	18.88	19.31	19.93	21.31
	4H	11.64	12.20	12.68	13.24	14.64	19.04	19.60	20.08	20.64	22.05
	6H	11.65	12.13	12.70	13.20	14.60	19.59	20.07	20.64	21.13	22.53
	8H	11.63	12.08	12.68	13.13	14.55	19.75	20.20	20.80	21.26	22.67
	12H	11.58	11.99	12.65	13.06	14.48	19.85	20.25	20.92	21.32	22.75
8H	4H	13.09	13.54	14.14	14.59	16.01	19.10	19.55	20.15	20.61	22.03
	6H	13.33	13.70	14.41	14.80	16.21	19.74	20.11	20.81	21.21	22.62
	8H	13.35	13.67	14.43	14.76	16.19	19.96	20.28	21.04	21.37	22.80
	12H	13.32	13.60	14.40	14.68	16.16	20.11	20.39	21.19	21.47	22.94
12H	4H	13.23	13.64	14.30	14.71	16.13	19.06	19.46	20.12	20.53	21.95
	6H	13.59	13.92	14.67	15.00	16.43	19.72	20.05	20.80	21.13	22.56
	8H	13.66	13.95	14.75	15.03	16.50	19.95	20.24	21.04	21.32	22.79