

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: P936628

Luminaire Tested: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

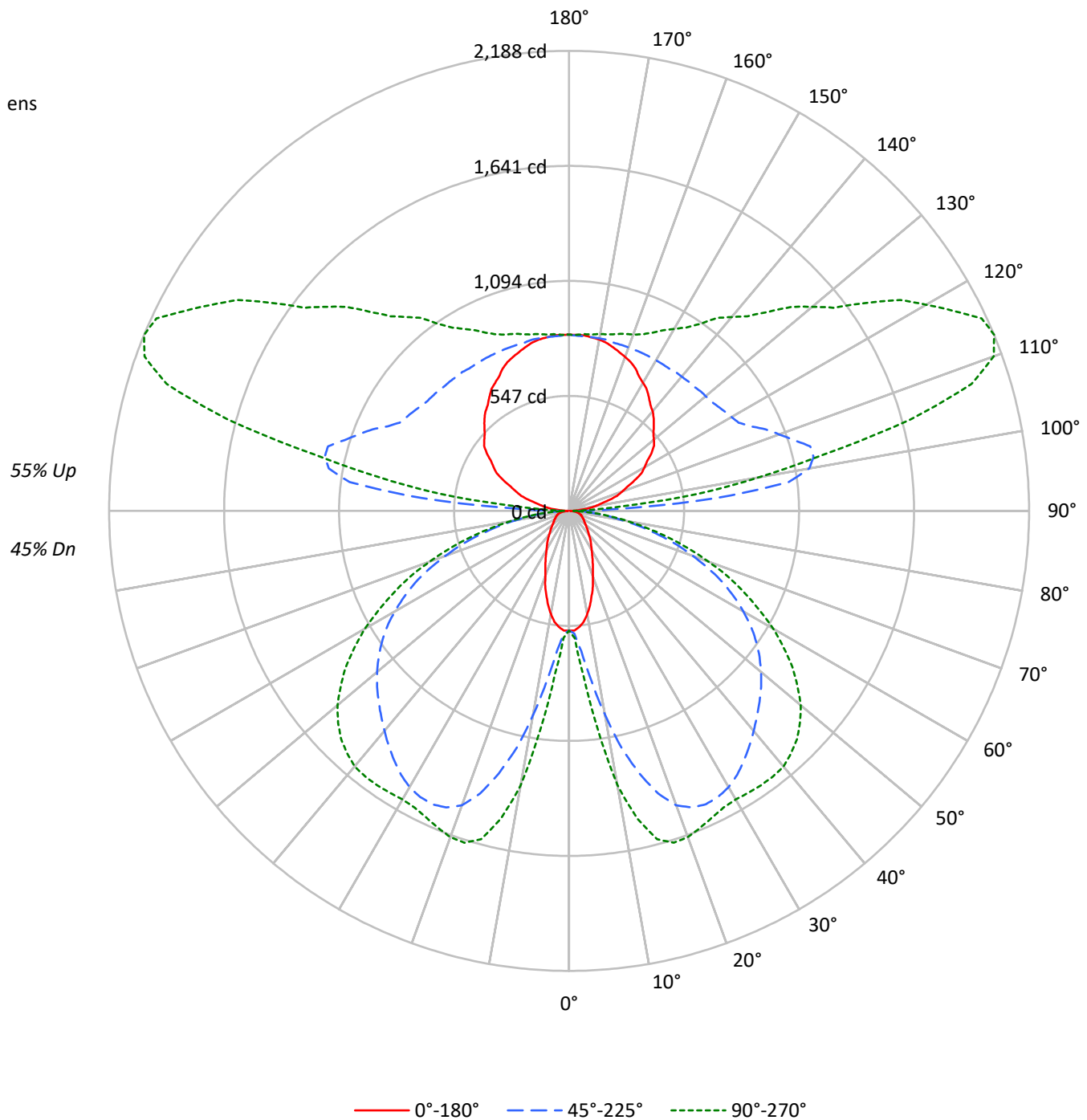
Test Method: LM-79-2019  
Report Number: P936628  
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9839.5 lumens  
Efficiency: N/A  
Efficacy: 115.5 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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### 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	1761	1761	1761
5°	1721	2035	2367
10°	1561	2968	3924
15°	1328	3878	4738
20°	1081	4496	4828
25°	902	4705	4730
30°	761	4737	4721
35°	673	4659	4843
40°	587	4558	4970
45°	532	4484	4989
50°	488	4418	4906
55°	468	4322	4689
60°	480	4134	4345
65°	500	3847	3873
70°	534	3358	3273
75°	593	2740	2554
80°	655	1903	1721
85°	593	1011	881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4989 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.6	0.7
10°-20°	326.3	3.3
20°-30°	570.8	5.8
30°-40°	734.8	7.5
40°-50°	820.8	8.3
50°-60°	786.1	8.0
60°-70°	623.0	6.3
70°-80°	366.3	3.7
80°-90°	105.0	1.1
90°-100°	408.5	4.2
100°-110°	1074.0	10.9
110°-120°	1113.6	11.3
120°-130°	893.3	9.1
130°-140°	700.9	7.1
140°-150°	538.0	5.5
150°-160°	387.4	3.9
160°-170°	237.0	2.4
170°-180°	80.1	0.8
0°-30°	970.8	9.9
0°-40°	1705.6	17.3
0°-60°	3312.5	33.7
0°-90°	4406.7	44.8
90°-120°	2596.1	26.4
90°-150°	4728.2	48.1
90°-180°	5433.0	55.2
0°-180°	9839.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	555	595	670	758	785	51
15°	416	767	1292	1567	1616	116
25°	265	869	1539	1607	1609	122
35°	179	831	1450	1532	1592	112
45°	123	663	1281	1468	1534	95
55°	88	421	1087	1263	1298	80
65°	70	223	807	908	921	69
75°	51	137	443	487	489	54
85°	18	42	110	121	123	19
90°	6	16	43	21	21	6
95°	54	212	704	363	247	60
105°	194	293	1187	1803	1682	205
115°	344	417	951	1897	2166	339
125°	478	536	865	1462	1724	424
135°	570	627	838	1180	1338	441
145°	661	703	827	1007	1086	414
155°	747	768	827	908	935	343
165°	806	817	827	860	871	227
175°	838	838	833	844	844	80
180°	838	838	838	838	838	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3
2.5°	569.3	569.3	572.9	574.7	578.3	580.2	583.9	587.5	598.5	600.4	604.0
5°	554.6	561.9	585.7	594.8	620.5	655.2	669.9	693.7	743.1	757.7	766.9
7.5°	532.6	549.1	607.6	622.3	686.4	777.9	816.3	867.6	946.3	984.7	1015.8
10°	497.8	532.6	636.9	671.8	776.0	915.2	986.5	1057.9	1176.9	1230.0	1250.1
12.5°	459.4	516.1	668.0	715.6	865.7	1068.9	1155.0	1233.6	1369.1	1440.5	1451.4
15°	415.5	492.4	697.3	766.9	960.9	1197.0	1292.2	1389.2	1515.5	1566.8	1579.6
17.5°	377.0	474.0	724.8	798.0	1034.2	1312.3	1409.3	1489.9	1592.4	1627.2	1636.3
20°	329.5	444.8	743.1	838.3	1111.0	1396.6	1489.9	1552.1	1621.7	1643.6	1647.3
22.5°	294.7	413.6	754.1	853.0	1162.2	1447.8	1526.5	1575.9	1623.5	1630.8	1632.6
25°	265.4	378.9	752.3	869.4	1206.2	1478.9	1539.3	1575.9	1603.3	1607.1	1607.1
27.5°	238.0	340.5	744.9	873.1	1239.1	1486.3	1533.8	1559.4	1572.2	1579.6	1579.6
30°	214.1	303.8	726.6	865.7	1253.8	1478.9	1517.4	1530.2	1542.9	1553.9	1559.4
32.5°	195.8	269.1	699.1	851.1	1255.6	1460.6	1488.1	1495.4	1513.6	1539.3	1548.5
35°	179.4	234.3	668.0	831.0	1244.7	1431.3	1449.6	1457.0	1493.5	1532.0	1544.7
37.5°	162.9	208.7	627.8	796.2	1228.1	1396.6	1409.3	1422.1	1478.9	1524.6	1539.3
40°	146.5	186.7	580.2	757.7	1202.5	1354.4	1365.5	1385.6	1460.6	1513.6	1528.3
42.5°	133.6	168.4	529.0	717.5	1169.6	1306.9	1323.3	1352.6	1438.6	1495.4	1511.8
45°	122.6	150.1	474.0	662.6	1127.5	1257.4	1281.2	1321.5	1413.0	1467.9	1482.5
47.5°	111.6	137.3	417.3	605.8	1081.7	1208.0	1239.1	1284.9	1378.2	1431.3	1444.1
50°	102.5	124.4	360.6	545.4	1032.3	1155.0	1191.5	1239.1	1334.3	1383.7	1400.2
52.5°	95.1	113.5	307.5	485.0	975.6	1100.0	1142.1	1191.5	1281.2	1328.8	1339.8
55°	87.9	104.3	261.7	421.0	917.0	1041.4	1087.2	1134.8	1222.6	1262.9	1270.2
57.5°	84.2	97.0	223.3	360.6	854.8	975.6	1026.8	1070.7	1153.1	1184.3	1191.5
60°	78.7	91.5	194.0	309.4	787.0	913.4	957.3	1001.1	1070.7	1096.4	1101.8
62.5°	73.2	87.9	172.0	259.9	717.5	840.1	884.1	924.3	982.9	1001.1	1008.5
65°	69.6	84.2	155.5	223.3	646.1	763.3	807.2	842.0	889.5	907.8	911.5
67.5°	65.9	80.5	142.7	192.2	574.7	686.4	719.3	752.3	788.8	807.2	809.0
70°	60.4	76.9	131.8	170.2	501.5	598.5	626.0	660.8	690.1	699.1	704.7
72.5°	56.8	71.4	124.4	153.7	426.4	514.3	540.0	560.1	585.7	594.8	594.8
75°	51.2	64.0	117.2	137.3	349.6	421.0	442.9	463.1	483.2	486.8	481.4
77.5°	45.8	56.8	100.7	115.3	272.7	333.1	351.4	362.4	378.9	382.5	384.3
80°	38.5	49.4	78.7	89.7	197.7	245.2	258.1	267.3	281.9	281.9	285.5
82.5°	29.3	38.5	56.8	64.0	133.6	168.4	179.4	184.8	194.0	194.0	194.0
85°	18.3	23.8	36.6	42.1	80.5	102.5	109.8	111.6	119.0	120.8	120.8
87.5°	9.2	12.8	23.8	25.7	42.1	53.1	53.1	56.8	56.8	54.9	53.1
90°	5.6	10.1	14.6	15.7	24.7	36.7	42.8	38.0	28.5	21.4	21.4
92.5°	22.5	60.7	99.0	108.5	152.5	211.3	240.7	210.9	151.5	106.9	102.6
95°	54.0	124.0	194.0	211.5	375.5	594.3	703.6	627.8	476.4	362.8	349.8
97.5°	93.3	155.1	216.9	232.3	505.8	870.5	1052.9	1005.1	909.3	837.5	813.0
100°	123.7	179.7	235.7	249.7	553.2	957.9	1160.3	1163.8	1170.8	1176.1	1146.9
102.5°	149.6	201.8	254.1	267.2	575.0	985.5	1190.7	1251.7	1373.6	1465.2	1440.1
105°	193.5	237.7	281.9	293.0	591.1	988.6	1187.3	1324.1	1597.5	1802.6	1789.2
107.5°	238.5	279.7	321.0	331.3	594.2	944.7	1119.9	1310.6	1692.1	1978.2	1981.5
110°	268.9	306.1	343.4	352.7	589.6	905.6	1063.6	1276.9	1703.3	2023.1	2037.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	298.6	334.1	369.6	378.5	589.8	871.5	1012.4	1230.6	1667.1	1994.5	2015.9
115°	343.7	376.4	409.2	417.3	595.3	832.5	951.1	1161.3	1581.8	1897.1	1927.0
117.5°	388.1	417.8	447.5	455.0	606.3	808.0	908.9	1098.7	1478.1	1762.7	1795.7
120°	414.0	442.0	469.9	476.9	615.3	799.8	892.1	1065.5	1412.1	1672.2	1704.3
122.5°	439.3	467.6	495.8	502.8	628.3	795.5	879.1	1035.2	1347.4	1581.6	1613.2
125°	478.1	503.8	529.6	536.0	645.8	791.9	865.1	997.7	1262.8	1461.8	1491.0
127.5°	509.6	535.6	561.6	568.1	663.1	789.8	853.2	967.1	1194.8	1365.6	1390.3
130°	526.5	554.5	582.4	589.4	675.9	791.1	848.8	950.1	1152.9	1304.9	1327.6
132.5°	543.9	571.9	599.9	606.9	686.2	791.9	844.8	935.6	1117.0	1253.1	1273.5
135°	569.8	595.3	620.7	627.1	697.4	791.2	838.0	914.1	1066.1	1180.1	1197.6
137.5°	596.2	621.5	646.8	653.0	714.3	796.1	837.0	901.2	1029.7	1126.0	1140.4
140°	618.1	641.4	664.6	670.4	724.6	796.8	833.0	888.4	999.5	1082.7	1096.2
142.5°	635.0	656.5	678.0	683.4	733.3	799.8	833.0	881.7	979.2	1052.4	1063.9
145°	660.9	679.6	698.3	703.1	744.5	799.8	827.4	867.2	947.0	1006.8	1015.5
147.5°	686.8	705.0	723.3	727.8	761.0	805.3	827.4	858.8	921.6	968.6	975.9
150°	703.6	720.1	736.6	740.7	769.6	808.1	827.4	853.9	906.8	946.6	952.5
152.5°	721.1	733.5	746.1	749.2	775.3	810.0	827.4	850.1	895.3	929.2	933.7
155°	746.9	756.2	765.5	767.7	787.7	814.1	827.4	845.4	881.3	908.4	911.3
157.5°	766.1	775.1	784.0	786.3	800.0	818.3	827.4	841.4	869.3	890.4	892.4
160°	779.0	786.0	793.0	794.7	805.7	820.1	827.4	839.4	863.3	881.3	882.5
162.5°	791.9	797.2	802.5	803.8	811.7	822.1	827.4	837.5	857.7	872.9	874.0
165°	806.0	810.8	815.5	816.7	820.2	825.0	827.4	834.7	849.1	860.0	861.2
167.5°	818.9	821.1	823.4	823.9	827.0	831.0	833.0	837.7	847.2	854.3	854.9
170°	827.4	829.6	831.9	832.4	832.6	832.9	833.0	837.7	847.2	854.3	854.3
172.5°	831.9	832.3	832.9	833.0	833.0	833.0	833.0	836.7	844.2	849.9	849.4
175°	838.0	838.0	838.0	838.0	836.3	834.0	833.0	835.3	840.1	843.7	843.7
177.5°	838.0	838.0	838.0	838.0	836.8	835.0	834.1	836.0	839.8	842.6	842.1
180°	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	569.3	569.3
2.5°	607.6	604.0
5°	781.6	785.2
7.5°	1052.5	1050.6
10°	1308.7	1325.2
12.5°	1495.4	1499.0
15°	1608.9	1616.2
17.5°	1652.8	1654.6
20°	1654.6	1651.0
22.5°	1634.4	1630.8
25°	1610.7	1608.9
27.5°	1588.7	1590.6
30°	1579.6	1585.0
32.5°	1579.6	1588.7
35°	1583.2	1592.4
37.5°	1581.4	1592.4
40°	1574.0	1586.9
42.5°	1553.9	1563.1
45°	1522.8	1533.8
47.5°	1482.5	1489.9
50°	1431.3	1438.6
52.5°	1367.3	1369.1
55°	1290.4	1297.7
57.5°	1208.0	1209.8
60°	1116.5	1121.9
62.5°	1019.5	1019.5
65°	917.0	920.6
67.5°	810.9	819.9
70°	702.9	704.7
72.5°	596.7	596.7
75°	486.8	488.7
77.5°	382.5	382.5
80°	283.7	285.5
82.5°	195.8	199.5
85°	122.6	122.6
87.5°	56.8	51.2
90°	21.4	21.4
92.5°	85.6	68.6
95°	298.4	246.9
97.5°	715.0	617.0
100°	1030.2	913.5
102.5°	1340.2	1240.2
105°	1735.5	1681.7
107.5°	1994.4	2007.4
110°	2093.1	2149.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2102.0	2187.9
115°	2046.2	2165.5
117.5°	1928.0	2060.2
120°	1832.8	1961.3
122.5°	1740.0	1866.8
125°	1607.7	1724.5
127.5°	1488.7	1587.2
130°	1418.7	1509.6
132.5°	1355.0	1436.5
135°	1267.9	1338.1
137.5°	1197.9	1255.4
140°	1149.9	1203.6
142.5°	1110.2	1156.4
145°	1050.5	1085.6
147.5°	1004.8	1033.8
150°	975.9	999.5
152.5°	951.4	969.1
155°	923.1	934.8
157.5°	900.6	908.9
160°	887.4	892.1
162.5°	878.5	883.1
165°	866.0	870.7
167.5°	856.9	858.9
170°	854.3	854.3
172.5°	847.7	846.0
175°	843.7	843.7
177.5°	840.0	838.0
180°	838.0	838.0



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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	2.48	3.33	3.47	4.34	5.68	15.67	16.52	16.66	17.53	18.87
	3H	3.18	3.95	4.19	4.97	6.33	17.52	18.28	18.52	19.30	20.66
	4H	3.48	4.21	4.50	5.23	6.60	18.16	18.89	19.18	19.91	21.28
	6H	3.73	4.40	4.76	5.43	6.81	18.60	19.27	19.63	20.29	21.67
	8H	3.80	4.44	4.83	5.48	6.86	18.72	19.36	19.75	20.40	21.78
	12H	3.82	4.42	4.85	5.46	6.86	18.79	19.40	19.83	20.43	21.84
4H	2H	9.70	10.43	10.73	11.45	12.82	15.94	16.67	16.97	17.69	19.06
	3H	11.27	11.87	12.30	12.92	14.31	17.99	18.60	19.03	19.65	21.03
	4H	11.36	11.92	12.40	12.96	14.36	18.76	19.32	19.80	20.36	21.77
	6H	11.37	11.85	12.42	12.92	14.32	19.31	19.79	20.36	20.85	22.25
	8H	11.35	11.80	12.40	12.85	14.27	19.47	19.92	20.52	20.98	22.39
	12H	11.30	11.71	12.37	12.78	14.20	19.57	19.97	20.64	21.04	22.47
8H	4H	12.81	13.26	13.86	14.31	15.73	18.82	19.27	19.87	20.33	21.74
	6H	13.05	13.42	14.13	14.52	15.93	19.46	19.83	20.53	20.93	22.34
	8H	13.07	13.39	14.15	14.48	15.91	19.68	20.00	20.76	21.09	22.52
	12H	13.04	13.32	14.12	14.40	15.88	19.83	20.11	20.91	21.19	22.66
12H	4H	12.95	13.36	14.02	14.43	15.85	18.77	19.18	19.84	20.25	21.67
	6H	13.31	13.64	14.39	14.72	16.15	19.44	19.77	20.52	20.85	22.28
	8H	13.38	13.67	14.47	14.75	16.22	19.67	19.96	20.76	21.04	22.51