

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: P938483

Luminaire Tested: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938483  
REPORT IS A COMBINATION OF REPORTS P933631 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-4-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

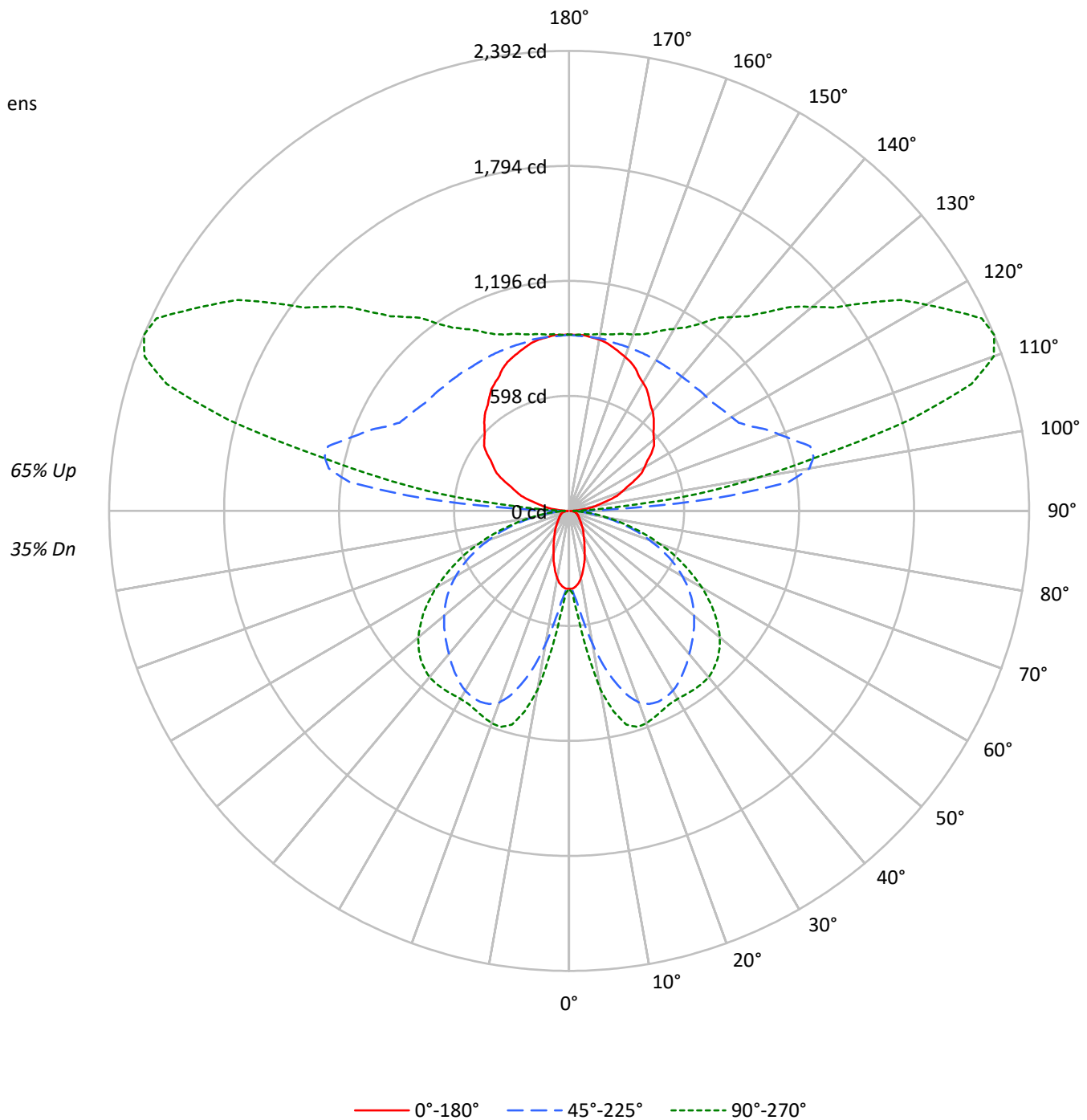
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9078.1 lumens  
Efficiency: N/A  
Efficacy: 125.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 72.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7

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

	0°	45°	90°
0°	3759	3759	3759
5°	3669	4342	5054
10°	3325	6325	8378
15°	2822	8258	10117
20°	2295	9562	10310
25°	1912	9998	10101
30°	1610	10055	10082
35°	1422	9879	10343
40°	1236	9654	10612
45°	1118	9487	10654
50°	1023	9335	10478
55°	976	9116	10013
60°	996	8704	9280
65°	1032	8082	8271
70°	1092	7035	6988
75°	1197	5721	5454
80°	1278	3953	3674
85°	1076	2087	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°	52.4	0.6
10°-20°	232.3	2.6
20°-30°	406.3	4.5
30°-40°	523.0	5.8
40°-50°	584.2	6.4
50°-60°	559.6	6.2
60°-70°	443.5	4.9
70°-80°	260.8	2.9
80°-90°	75.9	0.8
90°-100°	446.7	4.9
100°-110°	1174.3	12.9
110°-120°	1217.6	13.4
120°-130°	976.7	10.8
130°-140°	766.3	8.4
140°-150°	588.2	6.5
150°-160°	423.6	4.7
160°-170°	259.2	2.9
170°-180°	87.6	1.0
0°-30°	691.0	7.6
0°-40°	1214.1	13.4
0°-60°	2357.8	26.0
0°-90°	3138.0	34.6
90°-120°	2838.6	31.3
90°-150°	5169.8	56.9
90°-180°	5940.0	65.4
0°-180°	9078.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	405	405	405	405	405	
5°	395	423	477	539	559	36
15°	296	546	920	1115	1150	82
25°	189	619	1096	1144	1145	87
35°	128	592	1032	1090	1134	80
45°	87	472	912	1045	1092	68
55°	62	300	774	899	924	57
65°	50	159	574	646	655	49
75°	36	98	315	347	348	38
85°	13	30	78	86	87	14
90°	6	17	47	23	23	6
95°	59	231	769	397	270	66
105°	212	320	1298	1971	1839	224
115°	376	456	1040	2074	2368	371
125°	523	586	946	1598	1886	464
135°	623	686	916	1290	1463	482
145°	723	769	905	1101	1187	453
155°	817	840	905	993	1022	375
165°	881	893	905	940	952	249
175°	916	916	911	922	922	87
180°	916	916	916	916	916	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1
2.5°	405.1	405.1	407.8	409.1	411.7	413.0	415.6	418.2	426.1	427.3	429.9
5°	394.8	400.0	416.9	423.4	441.6	466.4	476.8	493.8	529.0	539.3	545.8
7.5°	379.1	390.9	432.6	443.0	488.6	553.7	581.0	617.5	673.5	700.9	723.0
10°	354.4	379.1	453.4	478.1	552.4	651.5	702.2	753.0	837.7	875.5	889.9
12.5°	327.1	367.4	475.5	509.4	616.2	760.9	822.1	878.1	974.6	1025.3	1033.1
15°	295.7	350.4	496.4	545.8	684.0	852.1	919.8	988.9	1078.8	1115.3	1124.3
17.5°	268.4	337.4	515.9	568.0	736.1	934.1	1003.2	1060.5	1133.5	1158.3	1164.8
20°	234.5	316.6	529.0	596.7	790.9	994.1	1060.5	1104.8	1154.3	1170.0	1172.6
22.5°	209.7	294.4	536.8	607.1	827.3	1030.6	1086.6	1121.8	1155.6	1160.8	1162.1
25°	188.9	269.7	535.5	618.8	858.6	1052.7	1095.6	1121.8	1141.3	1143.9	1143.9
27.5°	169.4	242.4	530.3	621.5	882.0	1057.9	1091.8	1110.0	1119.1	1124.3	1124.3
30°	152.4	216.2	517.3	616.2	892.4	1052.7	1080.1	1089.1	1098.3	1106.1	1110.0
32.5°	139.4	191.5	497.7	605.8	893.7	1039.6	1059.2	1064.4	1077.4	1095.6	1102.2
35°	127.7	166.7	475.5	591.5	885.9	1018.8	1031.8	1037.1	1063.1	1090.5	1099.6
37.5°	116.0	148.5	446.9	566.8	874.2	994.1	1003.2	1012.3	1052.7	1085.3	1095.6
40°	104.2	132.9	413.0	539.3	855.9	964.1	971.9	986.3	1039.6	1077.4	1087.9
42.5°	95.1	119.9	376.6	510.7	832.5	930.2	941.9	962.8	1024.1	1064.4	1076.1
45°	87.3	106.8	337.4	471.6	802.5	895.1	912.0	940.6	1005.8	1044.9	1055.3
47.5°	79.5	97.7	297.1	431.3	770.0	859.9	882.0	914.6	981.1	1018.8	1027.9
50°	73.0	88.6	256.7	388.3	734.8	822.1	848.2	882.0	949.8	984.9	996.6
52.5°	67.7	80.8	218.9	345.3	694.4	783.0	813.0	848.2	912.0	945.9	953.7
55°	62.5	74.2	186.4	299.6	652.7	741.3	773.9	807.7	870.3	898.9	904.2
57.5°	59.9	69.0	158.9	256.7	608.5	694.4	730.9	762.2	820.7	842.9	848.2
60°	56.0	65.2	138.1	220.2	560.2	650.1	681.4	712.7	762.2	780.4	784.3
62.5°	52.2	62.5	122.5	185.0	510.7	598.0	629.3	658.0	699.7	712.7	717.9
65°	49.5	59.9	110.7	158.9	459.9	543.3	574.5	599.3	633.2	646.2	648.8
67.5°	46.9	57.3	101.7	136.8	409.1	488.6	512.0	535.5	561.5	574.5	575.8
70°	43.0	54.7	93.8	121.2	356.9	426.1	445.6	470.3	491.1	497.7	501.6
72.5°	40.4	50.8	88.6	109.4	303.6	366.1	384.3	398.6	416.9	423.4	423.4
75°	36.5	45.6	83.4	97.7	248.9	299.6	315.3	329.6	343.9	346.6	342.6
77.5°	32.5	40.4	71.7	82.0	194.1	237.1	250.1	257.9	269.7	272.3	273.6
80°	27.3	35.2	56.0	63.8	140.7	174.6	183.7	190.2	200.7	200.7	203.2
82.5°	20.8	27.3	40.4	45.6	95.1	119.9	127.7	131.6	138.1	138.1	138.1
85°	13.0	17.0	26.0	30.0	57.3	73.0	78.2	79.5	84.7	86.0	86.0
87.5°	6.5	9.1	17.0	18.2	30.0	37.8	37.8	40.4	40.4	39.0	37.8
90°	6.1	11.0	16.0	17.3	27.1	40.2	46.7	41.5	31.2	23.4	23.4
92.5°	24.6	66.4	108.3	118.7	166.8	231.0	263.2	230.6	165.6	116.8	112.2
95°	59.1	135.6	212.1	231.2	410.6	649.8	769.4	686.6	520.9	396.7	382.6
97.5°	102.1	169.6	237.1	254.0	553.0	951.9	1151.3	1098.9	994.2	915.7	888.9
100°	135.3	196.5	257.7	273.0	604.9	1047.4	1268.7	1272.5	1280.2	1285.9	1254.0
102.5°	163.6	220.8	277.9	292.2	628.8	1077.5	1301.9	1368.6	1502.0	1602.1	1574.7
105°	211.6	260.0	308.3	320.4	646.3	1080.9	1298.2	1447.6	1746.7	1971.0	1956.3
107.5°	260.8	305.9	351.0	362.3	649.7	1032.8	1224.4	1433.0	1850.0	2162.9	2166.4
110°	293.9	334.6	375.5	385.6	644.7	990.1	1162.9	1396.1	1862.4	2212.1	2227.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	326.6	365.4	404.3	413.9	644.9	953.0	1107.0	1345.6	1822.8	2180.7	2204.2
115°	375.8	411.6	447.3	456.3	650.9	910.3	1039.9	1269.8	1729.5	2074.3	2107.0
117.5°	424.4	456.9	489.5	497.5	663.0	883.6	993.8	1201.2	1616.2	1927.3	1963.5
120°	452.6	483.2	513.8	521.5	672.7	874.5	975.4	1164.9	1544.0	1828.3	1863.4
122.5°	480.3	511.1	542.1	549.8	686.9	869.8	961.3	1131.9	1473.3	1729.3	1764.0
125°	522.8	550.9	579.1	586.1	706.0	865.9	945.9	1090.8	1380.8	1598.3	1630.3
127.5°	557.2	585.6	614.0	621.1	725.0	863.6	933.0	1057.5	1306.4	1493.2	1520.1
130°	575.6	606.2	636.8	644.4	739.0	865.0	928.0	1038.8	1260.5	1426.7	1451.6
132.5°	594.7	625.3	655.9	663.6	750.2	865.9	923.7	1022.9	1221.4	1370.1	1392.4
135°	623.0	650.9	678.7	685.7	762.6	865.0	916.3	999.4	1165.6	1290.2	1309.4
137.5°	651.8	679.5	707.1	714.0	781.0	870.4	915.1	985.3	1125.8	1231.2	1246.9
140°	675.9	701.3	726.8	733.1	792.3	871.3	910.8	971.4	1092.8	1183.8	1198.5
142.5°	694.3	717.8	741.3	747.2	801.7	874.4	910.8	964.1	1070.7	1150.7	1163.3
145°	722.6	743.1	763.6	768.7	814.0	874.5	904.7	948.2	1035.4	1100.8	1110.3
147.5°	750.8	770.9	790.8	795.8	832.1	880.5	904.7	939.0	1007.5	1059.0	1066.9
150°	769.4	787.4	805.4	809.9	841.5	883.6	904.7	933.6	991.5	1035.0	1041.4
152.5°	788.4	802.1	815.7	819.2	847.7	885.6	904.7	929.4	978.9	1016.0	1020.8
155°	816.7	826.9	836.9	839.5	861.2	890.2	904.7	924.4	963.7	993.2	996.5
157.5°	837.6	847.5	857.2	859.7	874.7	894.7	904.7	919.9	950.5	973.5	975.7
160°	851.7	859.4	867.1	869.0	880.9	896.8	904.7	917.8	944.0	963.6	964.9
162.5°	865.9	871.6	877.3	878.8	887.4	898.9	904.7	915.7	937.9	954.4	955.6
165°	881.3	886.4	891.6	892.9	896.9	902.1	904.7	912.5	928.4	940.2	941.5
167.5°	895.4	897.9	900.3	900.9	904.2	908.6	910.8	916.0	926.3	934.1	934.7
170°	904.7	907.1	909.6	910.2	910.4	910.7	910.8	916.0	926.3	934.1	934.1
172.5°	909.6	910.1	910.7	910.8	910.8	910.8	910.8	914.9	923.1	929.2	928.7
175°	916.3	916.3	916.3	916.3	914.4	912.0	910.8	913.3	918.6	922.5	922.5
177.5°	916.3	916.3	916.3	916.3	914.9	913.0	912.0	914.1	918.2	921.2	920.6
180°	916.3	916.3	916.3	916.3	916.3	916.3	916.3	916.3	916.3	916.3	916.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	405.1	405.1
2.5°	432.6	429.9
5°	556.3	559.0
7.5°	749.2	747.8
10°	931.6	943.2
12.5°	1064.4	1067.0
15°	1145.2	1150.4
17.5°	1176.5	1177.8
20°	1177.8	1175.1
22.5°	1163.5	1160.8
25°	1146.5	1145.2
27.5°	1130.8	1132.1
30°	1124.3	1128.3
32.5°	1124.3	1130.8
35°	1127.0	1133.5
37.5°	1125.6	1133.5
40°	1120.5	1129.6
42.5°	1106.1	1112.6
45°	1084.0	1091.8
47.5°	1055.3	1060.5
50°	1018.8	1024.1
52.5°	973.2	974.6
55°	918.5	923.7
57.5°	859.9	861.2
60°	794.7	798.7
62.5°	725.7	725.7
65°	652.7	655.3
67.5°	577.2	583.7
70°	500.3	501.6
72.5°	424.8	424.8
75°	346.6	347.9
77.5°	272.3	272.3
80°	201.9	203.2
82.5°	139.4	142.0
85°	87.3	87.3
87.5°	40.4	36.5
90°	23.4	23.4
92.5°	93.6	75.0
95°	326.3	270.0
97.5°	781.8	674.6
100°	1126.4	998.7
102.5°	1465.4	1356.0
105°	1897.6	1838.8
107.5°	2180.6	2194.8
110°	2288.6	2349.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2298.3	2392.2
115°	2237.3	2367.7
117.5°	2108.1	2252.6
120°	2003.9	2144.5
122.5°	1902.6	2041.1
125°	1757.8	1885.5
127.5°	1627.8	1735.5
130°	1551.1	1650.6
132.5°	1481.5	1570.6
135°	1386.2	1463.0
137.5°	1309.8	1372.6
140°	1257.2	1316.0
142.5°	1213.9	1264.3
145°	1148.7	1186.9
147.5°	1098.6	1130.4
150°	1067.1	1092.8
152.5°	1040.2	1059.6
155°	1009.3	1022.1
157.5°	984.7	993.8
160°	970.1	975.4
162.5°	960.6	965.5
165°	946.8	952.0
167.5°	936.9	939.1
170°	934.1	934.1
172.5°	926.8	925.0
175°	922.5	922.5
177.5°	918.5	916.3
180°	916.3	916.3



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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	3.98	4.74	5.06	5.82	7.30	17.12	17.89	18.20	18.96	20.44
	3H	4.68	5.36	5.76	6.45	7.94	18.94	19.62	20.02	20.71	22.20
	4H	4.98	5.62	6.07	6.71	8.21	19.57	20.22	20.66	21.31	22.80
	6H	5.22	5.82	6.32	6.91	8.42	19.98	20.58	21.09	21.67	23.18
	8H	5.29	5.86	6.39	6.96	8.47	20.09	20.66	21.20	21.77	23.27
	12H	5.30	5.84	6.41	6.94	8.47	20.15	20.69	21.26	21.79	23.32
4H	2H	11.16	11.81	12.26	12.90	14.40	17.39	18.04	18.49	19.12	20.62
	3H	12.72	13.27	13.83	14.38	15.89	19.41	19.95	20.52	21.07	22.58
	4H	12.81	13.31	13.93	14.42	15.95	20.16	20.66	21.27	21.76	23.29
	6H	12.82	13.25	13.94	14.38	15.90	20.68	21.11	21.80	22.24	23.76
	8H	12.79	13.19	13.91	14.31	15.85	20.83	21.23	21.95	22.35	23.89
	12H	12.74	13.11	13.88	14.24	15.78	20.91	21.28	22.05	22.41	23.95
8H	4H	14.24	14.64	15.36	15.76	17.30	20.21	20.61	21.33	21.73	23.27
	6H	14.48	14.81	15.62	15.97	17.51	20.82	21.16	21.97	22.32	23.85
	8H	14.49	14.78	15.64	15.93	17.48	21.04	21.33	22.18	22.47	24.02
	12H	14.46	14.71	15.61	15.85	17.44	21.17	21.42	22.32	22.56	24.15
12H	4H	14.37	14.74	15.51	15.87	17.41	20.16	20.52	21.30	21.66	23.20
	6H	14.73	15.02	15.88	16.16	17.72	20.81	21.10	21.95	22.24	23.80
	8H	14.80	15.05	15.95	16.19	17.78	21.02	21.28	22.18	22.42	24.01