

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: P937476

Luminaire Tested: SQ4-FB-100U-050D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

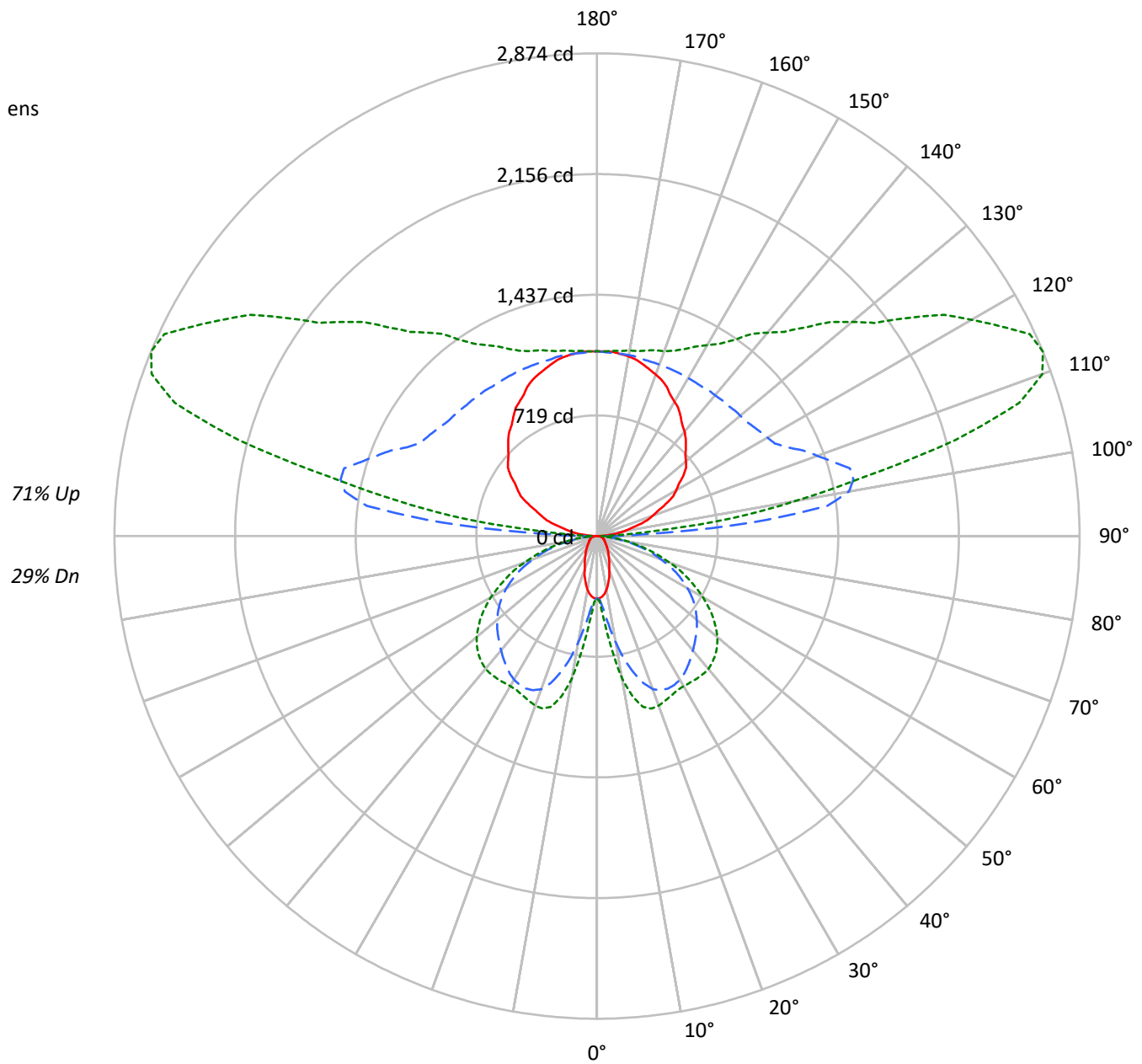
Test Method: LM-79-2019  
Report Number: P937476  
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10005.1 lumens  
Efficiency: N/A  
Efficacy: 121.4 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-Indirect  
  
Input Watts (W): 82.4  
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



— 0°-180°    - - 45°-225°    - - - 90°-270°



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	50	30	10	0	
RCR																						
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29				29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23				23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19				19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16				16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13				13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11				11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10				10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8				8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7				7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7				7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6				6

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

	0°	45°	90°
0°	1719	1719	1719
5°	1679	1986	2310
10°	1523	2896	3830
15°	1294	3783	4624
20°	1054	4384	4713
25°	879	4587	4617
30°	741	4616	4609
35°	655	4540	4728
40°	571	4440	4851
45°	517	4367	4870
50°	474	4302	4789
55°	455	4205	4577
60°	465	4021	4241
65°	484	3740	3781
70°	515	3261	3195
75°	572	2659	2493
80°	624	1844	1680
85°	554	979	860

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4870 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.9	0.5
10°-20°	212.4	2.1
20°-30°	371.5	3.7
30°-40°	478.2	4.8
40°-50°	534.1	5.3
50°-60°	511.5	5.1
60°-70°	405.4	4.1
70°-80°	238.4	2.4
80°-90°	70.4	0.7
90°-100°	536.6	5.4
100°-110°	1410.6	14.1
110°-120°	1462.6	14.6
120°-130°	1173.2	11.7
130°-140°	920.5	9.2
140°-150°	706.5	7.1
150°-160°	508.8	5.1
160°-170°	311.3	3.1
170°-180°	105.2	1.1
0°-30°	631.7	6.3
0°-40°	1109.9	11.1
0°-60°	2155.6	21.5
0°-90°	2869.8	28.7
90°-120°	3409.7	34.1
90°-150°	6210.0	62.1
90°-180°	7135.0	71.3
0°-180°	10005.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	370	370	370	370	370	
5°	361	387	436	493	511	33
15°	270	499	841	1020	1052	75
25°	173	566	1002	1046	1047	80
35°	117	541	943	997	1036	73
45°	80	431	834	955	998	62
55°	57	274	708	822	844	52
65°	45	145	525	591	599	45
75°	33	89	288	317	318	35
85°	12	27	72	79	80	13
90°	7	21	56	28	28	7
95°	71	278	924	476	324	79
105°	254	385	1559	2368	2209	269
115°	451	548	1249	2492	2844	446
125°	628	704	1136	1920	2265	557
135°	748	824	1101	1550	1757	579
145°	868	923	1087	1322	1426	544
155°	981	1008	1087	1193	1228	451
165°	1059	1073	1087	1130	1144	299
175°	1101	1101	1094	1108	1108	104
180°	1101	1101	1101	1101	1101	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4
2.5°	370.4	370.4	372.8	374.0	376.3	377.6	380.0	382.4	389.5	390.6	393.0
5°	360.9	365.7	381.1	387.1	403.8	426.4	435.9	451.4	483.6	493.1	499.1
7.5°	346.6	357.3	395.4	404.9	446.7	506.2	531.2	564.6	615.7	640.8	661.0
10°	323.9	346.6	414.5	437.2	505.0	595.5	642.0	688.5	765.8	800.4	813.5
12.5°	299.0	335.8	434.8	465.7	563.3	695.6	751.6	802.8	890.9	937.4	944.5
15°	270.4	320.4	453.8	499.1	625.3	779.0	840.9	904.0	986.2	1019.5	1027.9
17.5°	245.4	308.5	471.7	519.3	672.9	854.0	917.1	969.5	1036.2	1058.9	1064.8
20°	214.4	289.4	483.6	545.5	723.0	908.8	969.5	1010.0	1055.3	1069.6	1072.0
22.5°	191.7	269.2	490.7	555.0	756.3	942.2	993.3	1025.6	1056.5	1061.2	1062.4
25°	172.7	246.5	489.6	565.7	784.9	962.4	1001.7	1025.6	1043.4	1045.8	1045.8
27.5°	154.9	221.6	484.8	568.1	806.4	967.1	998.1	1014.8	1023.2	1027.9	1027.9
30°	139.3	197.8	472.9	563.3	815.9	962.4	987.4	995.7	1004.1	1011.3	1014.8
32.5°	127.4	175.1	455.0	553.8	817.0	950.4	968.4	973.1	985.0	1001.7	1007.6
35°	116.7	152.5	434.8	540.7	809.9	931.4	943.3	948.1	971.9	997.0	1005.2
37.5°	106.0	135.8	408.6	518.1	799.2	908.8	917.1	925.5	962.4	992.2	1001.7
40°	95.3	121.5	377.6	493.1	782.5	881.4	888.5	901.7	950.4	985.0	994.6
42.5°	86.9	109.6	344.2	466.9	761.1	850.4	861.2	880.2	936.2	973.1	983.8
45°	79.8	97.7	308.5	431.1	733.7	818.3	833.7	859.9	919.5	955.2	964.7
47.5°	72.6	89.3	271.6	394.3	703.9	786.1	806.4	836.1	896.9	931.4	939.8
50°	66.7	81.0	234.6	354.9	671.8	751.6	775.4	806.4	868.3	900.4	911.2
52.5°	61.9	73.9	200.1	315.6	634.8	715.8	743.3	775.4	833.7	864.7	871.8
55°	57.2	67.9	170.3	273.9	596.7	677.7	707.5	738.5	795.6	821.8	826.6
57.5°	54.8	63.1	145.3	234.6	556.2	634.8	668.2	696.8	750.4	770.6	775.4
60°	51.2	59.6	126.3	201.3	512.2	594.3	622.9	651.5	696.8	713.4	717.1
62.5°	47.7	57.2	112.0	169.2	466.9	546.7	575.2	601.5	639.6	651.5	656.3
65°	45.3	54.8	101.2	145.3	420.5	496.7	525.3	547.9	578.9	590.8	593.2
67.5°	42.9	52.4	92.9	125.0	374.0	446.7	468.1	489.6	513.4	525.3	526.4
70°	39.3	50.0	85.8	110.7	326.3	389.5	407.3	430.0	449.1	455.0	458.6
72.5°	36.9	46.4	81.0	100.1	277.5	334.7	351.4	364.4	381.1	387.1	387.1
75°	33.4	41.6	76.2	89.3	227.5	273.9	288.2	301.3	314.4	316.8	313.3
77.5°	29.7	36.9	65.5	75.0	177.5	216.8	228.7	235.9	246.5	248.9	250.1
80°	25.0	32.1	51.2	58.3	128.7	159.6	167.9	173.9	183.5	183.5	185.8
82.5°	19.1	25.0	36.9	41.6	86.9	109.6	116.7	120.3	126.3	126.3	126.3
85°	11.9	15.5	23.8	27.4	52.4	66.7	71.5	72.6	77.4	78.6	78.6
87.5°	5.9	8.3	15.5	16.7	27.4	34.5	34.5	36.9	36.9	35.7	34.5
90°	7.4	13.3	19.2	20.7	32.5	48.2	56.1	49.9	37.4	28.1	28.1
92.5°	29.6	79.8	130.1	142.6	200.4	277.6	316.1	277.1	199.0	140.4	134.8
95°	71.0	162.9	254.8	277.8	493.2	780.5	924.1	824.7	625.7	476.5	459.6
97.5°	122.6	203.7	284.9	305.1	664.4	1143.4	1382.9	1320.0	1194.3	1100.0	1067.8
100°	162.5	236.0	309.6	328.0	726.7	1258.2	1524.0	1528.6	1537.7	1544.7	1506.3
102.5°	196.5	265.1	333.7	350.8	755.2	1294.3	1563.9	1644.0	1804.2	1924.4	1891.5
105°	254.1	312.2	370.3	384.9	776.4	1298.4	1559.4	1739.0	2098.2	2367.6	2349.9
107.5°	313.2	367.4	421.5	435.1	780.4	1240.6	1470.8	1721.3	2222.3	2598.0	2602.3
110°	353.1	402.0	450.9	463.2	774.4	1189.4	1396.9	1677.0	2237.0	2657.2	2675.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	392.2	438.8	485.6	497.2	774.7	1144.7	1329.7	1616.3	2189.5	2619.5	2647.7
115°	451.4	494.3	537.4	548.2	781.8	1093.4	1249.1	1525.3	2077.6	2491.7	2530.9
117.5°	509.7	548.8	587.9	597.6	796.4	1061.2	1193.7	1442.9	1941.3	2315.1	2358.5
120°	543.7	580.5	617.2	626.4	808.2	1050.5	1171.6	1399.3	1854.7	2196.2	2238.4
122.5°	576.9	614.1	651.2	660.4	825.1	1044.7	1154.6	1359.6	1769.7	2077.3	2118.9
125°	627.9	661.7	695.6	704.0	848.0	1040.1	1136.1	1310.3	1658.7	1919.9	1958.3
127.5°	669.3	703.4	737.6	746.1	871.0	1037.5	1120.7	1270.2	1569.3	1793.6	1825.9
130°	691.4	728.2	764.9	774.2	887.6	1039.0	1114.7	1247.8	1514.1	1713.8	1743.7
132.5°	714.3	751.1	787.8	797.1	901.2	1040.1	1109.6	1228.7	1467.1	1645.8	1672.5
135°	748.3	781.8	815.4	823.7	916.1	1039.1	1100.7	1200.5	1400.1	1549.8	1572.9
137.5°	783.0	816.2	849.4	857.6	938.2	1045.5	1099.2	1183.5	1352.3	1478.9	1497.8
140°	811.8	842.4	872.9	880.5	951.7	1046.6	1094.0	1166.9	1312.7	1422.0	1439.7
142.5°	834.0	862.2	890.5	897.5	963.0	1050.3	1094.0	1158.0	1286.1	1382.2	1397.4
145°	868.0	892.6	917.3	923.4	977.9	1050.4	1086.6	1139.0	1243.7	1322.3	1333.8
147.5°	901.9	925.9	949.9	955.9	999.5	1057.6	1086.6	1127.8	1210.3	1272.1	1281.6
150°	924.1	945.8	967.5	972.9	1010.8	1061.3	1086.6	1121.5	1191.1	1243.3	1251.0
152.5°	947.1	963.5	979.9	984.0	1018.2	1063.8	1086.6	1116.4	1175.8	1220.4	1226.2
155°	981.0	993.1	1005.3	1008.3	1034.4	1069.2	1086.6	1110.3	1157.6	1193.0	1196.8
157.5°	1006.1	1017.9	1029.8	1032.7	1050.7	1074.7	1086.6	1105.0	1141.8	1169.4	1172.1
160°	1023.2	1032.4	1041.5	1043.8	1058.1	1077.1	1086.6	1102.5	1134.0	1157.6	1159.2
162.5°	1040.1	1047.0	1054.0	1055.7	1066.0	1079.7	1086.6	1100.0	1126.5	1146.5	1148.0
165°	1058.6	1064.8	1071.0	1072.6	1077.3	1083.5	1086.6	1096.1	1115.2	1129.5	1131.1
167.5°	1075.5	1078.5	1081.5	1082.2	1086.1	1091.4	1094.0	1100.2	1112.8	1122.1	1122.7
170°	1086.6	1089.6	1092.6	1093.3	1093.6	1093.8	1094.0	1100.2	1112.8	1122.1	1122.1
172.5°	1092.6	1093.2	1093.8	1094.0	1094.0	1094.0	1094.0	1099.0	1108.8	1116.2	1115.7
175°	1100.7	1100.7	1100.7	1100.7	1098.5	1095.5	1094.0	1097.1	1103.3	1108.0	1108.0
177.5°	1100.7	1100.7	1100.7	1100.7	1099.0	1096.7	1095.5	1098.0	1102.9	1106.6	1106.0
180°	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	370.4	370.4
2.5°	395.4	393.0
5°	508.6	511.0
7.5°	684.8	683.7
10°	851.6	862.3
12.5°	973.1	975.5
15°	1047.0	1051.7
17.5°	1075.5	1076.7
20°	1076.7	1074.3
22.5°	1063.6	1061.2
25°	1048.1	1047.0
27.5°	1033.8	1035.1
30°	1027.9	1031.5
32.5°	1027.9	1033.8
35°	1030.3	1036.2
37.5°	1029.1	1036.2
40°	1024.3	1032.7
42.5°	1011.3	1017.2
45°	991.0	998.1
47.5°	964.7	969.5
50°	931.4	936.2
52.5°	889.7	890.9
55°	839.7	844.5
57.5°	786.1	787.3
60°	726.6	730.1
62.5°	663.4	663.4
65°	596.7	599.1
67.5°	527.6	533.6
70°	457.4	458.6
72.5°	388.3	388.3
75°	316.8	318.0
77.5°	248.9	248.9
80°	184.6	185.8
82.5°	127.4	129.8
85°	79.8	79.8
87.5°	36.9	33.4
90°	28.1	28.1
92.5°	112.5	90.1
95°	392.0	324.3
97.5°	939.1	810.4
100°	1353.0	1199.7
102.5°	1760.2	1628.9
105°	2279.3	2208.7
107.5°	2619.4	2636.5
110°	2749.1	2822.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2760.6	2873.6
115°	2687.4	2844.1
117.5°	2532.2	2705.9
120°	2407.2	2575.9
122.5°	2285.4	2451.8
125°	2111.6	2264.9
127.5°	1955.3	2084.7
130°	1863.2	1982.7
132.5°	1779.6	1886.6
135°	1665.2	1757.4
137.5°	1573.3	1648.8
140°	1510.2	1580.8
142.5°	1458.1	1518.8
145°	1379.8	1425.7
147.5°	1319.7	1357.8
150°	1281.8	1312.7
152.5°	1249.5	1272.8
155°	1212.3	1227.7
157.5°	1182.9	1193.7
160°	1165.4	1171.6
162.5°	1153.9	1159.8
165°	1137.4	1143.6
167.5°	1125.4	1128.0
170°	1122.1	1122.1
172.5°	1113.4	1111.1
175°	1108.0	1108.0
177.5°	1103.3	1100.7
180°	1100.7	1100.7



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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	0.51	1.23	1.63	2.34	3.89	13.69	14.41	14.81	15.52	17.07
	3H	1.21	1.85	2.33	2.97	4.53	15.52	16.16	16.64	17.29	18.85
	4H	1.50	2.11	2.63	3.23	4.80	16.16	16.77	17.29	17.89	19.46
	6H	1.74	2.30	2.88	3.43	5.00	16.58	17.14	17.72	18.27	19.85
	8H	1.80	2.34	2.95	3.48	5.05	16.70	17.23	17.84	18.37	19.94
	12H	1.82	2.32	2.97	3.46	5.05	16.76	17.27	17.91	18.40	20.00
4H	2H	7.71	8.32	8.85	9.44	11.01	13.95	14.56	15.09	15.68	17.25
	3H	9.26	9.78	10.41	10.92	12.50	15.98	16.49	17.13	17.64	19.22
	4H	9.35	9.82	10.50	10.96	12.56	16.74	17.21	17.89	18.35	19.95
	6H	9.35	9.76	10.51	10.92	12.51	17.27	17.67	18.43	18.83	20.42
	8H	9.33	9.70	10.48	10.86	12.46	17.43	17.81	18.58	18.96	20.56
	12H	9.28	9.62	10.45	10.78	12.39	17.52	17.86	18.69	19.02	20.63
8H	4H	10.79	11.16	11.94	12.31	13.92	16.79	17.17	17.94	18.32	19.92
	6H	11.02	11.33	12.20	12.53	14.13	17.41	17.72	18.59	18.92	20.52
	8H	11.04	11.31	12.22	12.48	14.10	17.63	17.90	18.81	19.07	20.69
	12H	11.00	11.24	12.18	12.41	14.06	17.77	18.00	18.95	19.17	20.83
12H	4H	10.92	11.26	12.09	12.43	14.04	16.73	17.08	17.91	18.24	19.85
	6H	11.28	11.55	12.46	12.72	14.34	17.39	17.66	18.57	18.84	20.46
	8H	11.34	11.58	12.52	12.75	14.40	17.61	17.85	18.80	19.02	20.68