

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: P937443

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937443
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-92765-1D-UNV-STD-W-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

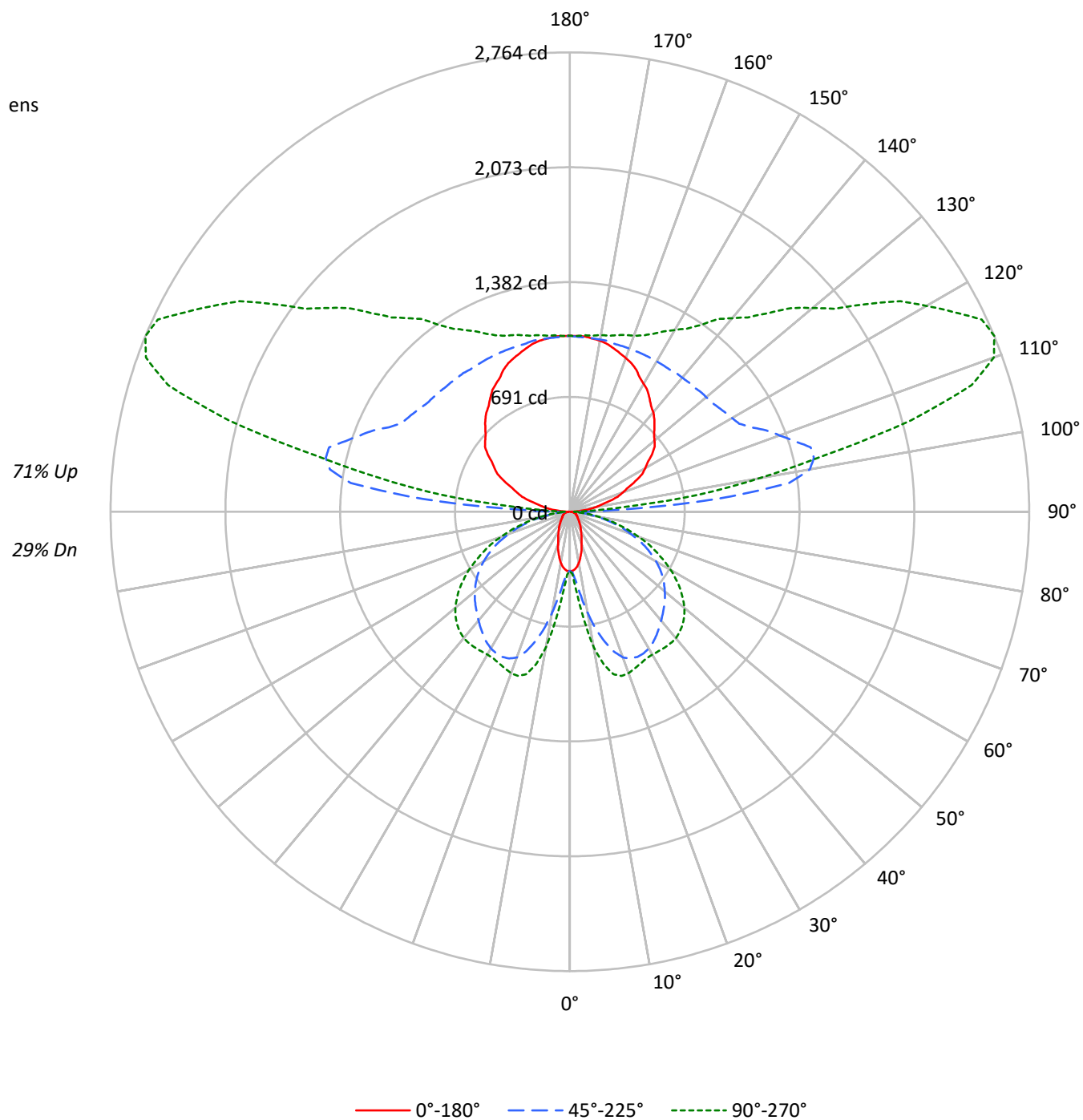
Lumens per Lamp: N/A
Luminaire Lumens: 9623.5 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 82.4
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-100U-050D-92765-1D-UNV-STD-W-8-2700K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1653	1653	1653
5°	1615	1911	2222
10°	1465	2785	3683
15°	1245	3639	4448
20°	1013	4216	4533
25°	845	4413	4441
30°	713	4440	4433
35°	630	4366	4547
40°	549	4271	4666
45°	498	4200	4684
50°	456	4137	4607
55°	437	4045	4403
60°	448	3868	4080
65°	466	3597	3637
70°	496	3137	3073
75°	550	2557	2398
80°	601	1774	1615
85°	531	942	827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4684 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	0.5
10°-20°	204.3	2.1
20°-30°	357.3	3.7
30°-40°	459.9	4.8
40°-50°	513.7	5.3
50°-60°	492.0	5.1
60°-70°	390.0	4.1
70°-80°	229.3	2.4
80°-90°	67.7	0.7
90°-100°	516.1	5.4
100°-110°	1356.8	14.1
110°-120°	1406.8	14.6
120°-130°	1128.4	11.7
130°-140°	885.4	9.2
140°-150°	679.6	7.1
150°-160°	489.4	5.1
160°-170°	299.5	3.1
170°-180°	101.2	1.1
0°-30°	607.6	6.3
0°-40°	1067.6	11.1
0°-60°	2073.3	21.5
0°-90°	2760.3	28.7
90°-120°	3279.7	34.1
90°-150°	5973.1	62.1
90°-180°	6863.0	71.3
0°-180°	9623.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	356	356	356	356	356	
5°	347	372	419	474	492	32
15°	260	480	809	981	1012	72
25°	166	544	964	1006	1007	77
35°	112	520	907	959	997	70
45°	77	415	802	919	960	59
55°	55	264	680	790	812	50
65°	44	140	505	568	576	43
75°	32	86	277	305	306	34
85°	11	26	69	76	77	12
90°	7	20	54	27	27	7
95°	68	267	889	458	312	76
105°	244	370	1500	2277	2124	259
115°	434	527	1202	2397	2736	429
125°	604	677	1093	1847	2178	536
135°	720	792	1059	1491	1690	557
145°	835	888	1045	1272	1371	523
155°	944	970	1045	1148	1181	434
165°	1018	1032	1045	1086	1100	287
175°	1059	1059	1052	1066	1066	100
180°	1059	1059	1059	1059	1059	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3
2.5°	356.3	356.3	358.6	359.8	362.0	363.2	365.5	367.8	374.6	375.7	378.0
5°	347.1	351.7	366.6	372.3	388.4	410.2	419.3	434.2	465.2	474.3	480.0
7.5°	333.4	343.7	380.3	389.5	429.6	486.9	510.9	543.1	592.3	616.3	635.8
10°	311.6	333.4	398.7	420.5	485.7	572.8	617.5	662.2	736.6	769.8	782.5
12.5°	287.6	323.0	418.2	447.9	541.9	669.0	722.9	772.1	856.9	901.6	908.5
15°	260.1	308.2	436.5	480.0	601.5	749.2	808.9	869.5	948.6	980.6	988.7
17.5°	236.0	296.7	453.7	499.5	647.3	821.4	882.1	932.5	996.7	1018.5	1024.2
20°	206.2	278.4	465.2	524.7	695.4	874.1	932.5	971.5	1015.0	1028.8	1031.1
22.5°	184.4	258.9	472.0	533.8	727.5	906.2	955.4	986.4	1016.2	1020.8	1021.9
25°	166.1	237.1	470.9	544.2	755.0	925.7	963.5	986.4	1003.6	1005.9	1005.9
27.5°	149.0	213.1	466.3	546.5	775.6	930.2	960.0	976.1	984.1	988.7	988.7
30°	134.0	190.2	454.8	541.9	784.8	925.7	949.7	957.7	965.8	972.7	976.1
32.5°	122.6	168.4	437.7	532.7	785.9	914.2	931.4	936.0	947.4	963.5	969.2
35°	112.2	146.7	418.2	520.1	779.1	895.9	907.3	912.0	934.8	958.9	966.9
37.5°	102.0	130.6	393.0	498.4	768.7	874.1	882.1	890.2	925.7	954.3	963.5
40°	91.6	116.8	363.2	474.3	752.7	847.8	854.6	867.3	914.2	947.4	956.6
42.5°	83.6	105.4	331.1	449.1	732.1	818.0	828.3	846.6	900.5	936.0	946.3
45°	76.8	94.0	296.7	414.7	705.7	787.1	801.9	827.1	884.4	918.8	927.9
47.5°	69.9	85.9	261.2	379.2	677.1	756.2	775.6	804.2	862.7	895.9	903.9
50°	64.1	77.9	225.7	341.4	646.1	722.9	745.8	775.6	835.2	866.1	876.4
52.5°	59.5	71.1	192.4	303.6	610.6	688.5	714.9	745.8	801.9	831.7	838.6
55°	55.0	65.3	163.8	263.5	574.0	651.9	680.5	710.3	765.3	790.5	795.1
57.5°	52.7	60.7	139.7	225.7	535.0	610.6	642.7	670.2	721.7	741.2	745.8
60°	49.3	57.3	121.5	193.6	492.7	571.7	599.2	626.7	670.2	686.2	689.7
62.5°	45.9	55.0	107.7	162.7	449.1	525.9	553.3	578.6	615.2	626.7	631.3
65°	43.6	52.7	97.4	139.7	404.4	477.7	505.2	527.0	556.8	568.3	570.6
67.5°	41.3	50.4	89.3	120.3	359.8	429.6	450.2	470.9	493.8	505.2	506.3
70°	37.8	48.1	82.5	106.5	313.9	374.6	391.8	413.6	431.9	437.7	441.1
72.5°	35.5	44.7	77.9	96.3	266.9	321.9	338.0	350.5	366.6	372.3	372.3
75°	32.1	40.1	73.3	85.9	218.8	263.5	277.2	289.8	302.4	304.8	301.3
77.5°	28.6	35.5	63.0	72.2	170.7	208.5	219.9	226.9	237.1	239.4	240.6
80°	24.1	30.9	49.3	56.1	123.8	153.5	161.5	167.2	176.5	176.5	178.7
82.5°	18.4	24.1	35.5	40.1	83.6	105.4	112.2	115.7	121.5	121.5	121.5
85°	11.4	14.9	22.9	26.3	50.4	64.1	68.8	69.9	74.5	75.6	75.6
87.5°	5.7	8.0	14.9	16.1	26.3	33.2	33.2	35.5	35.5	34.3	33.2
90°	7.1	12.8	18.4	19.9	31.3	46.4	54.0	48.0	36.0	27.0	27.0
92.5°	28.4	76.8	125.1	137.2	192.8	267.0	304.1	266.5	191.4	135.0	129.7
95°	68.2	156.6	245.0	267.2	474.4	750.7	888.9	793.2	601.8	458.3	442.1
97.5°	118.0	195.9	274.0	293.5	639.1	1099.8	1330.1	1269.7	1148.7	1058.0	1027.1
100°	156.3	227.0	297.8	315.5	698.9	1210.2	1465.9	1470.3	1479.1	1485.8	1448.9
102.5°	189.0	255.0	321.0	337.5	726.4	1244.9	1504.2	1581.2	1735.4	1851.0	1819.4
105°	244.5	300.3	356.2	370.2	746.8	1248.9	1499.9	1672.6	2018.1	2277.3	2260.3
107.5°	301.3	353.4	405.5	418.5	750.6	1193.3	1414.7	1655.6	2137.5	2498.9	2503.0
110°	339.6	386.7	433.7	445.5	744.9	1144.0	1343.6	1613.0	2151.7	2555.8	2573.5

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	377.3	422.1	467.0	478.2	745.1	1101.1	1279.0	1554.7	2106.0	2519.6	2546.8
115°	434.2	475.5	516.9	527.3	752.0	1051.7	1201.5	1467.1	1998.3	2396.7	2434.4
117.5°	490.3	527.9	565.4	574.8	766.0	1020.8	1148.2	1387.9	1867.3	2226.8	2268.6
120°	523.0	558.3	593.7	602.5	777.3	1010.4	1126.9	1345.9	1783.9	2112.4	2153.0
122.5°	554.9	590.6	626.3	635.2	793.7	1004.9	1110.5	1307.8	1702.2	1998.1	2038.1
125°	604.0	636.5	669.0	677.2	815.7	1000.4	1092.8	1260.4	1595.4	1846.7	1883.6
127.5°	643.8	676.6	709.4	717.6	837.7	997.9	1077.9	1221.7	1509.4	1725.2	1756.3
130°	665.0	700.4	735.7	744.6	853.8	999.4	1072.2	1200.2	1456.4	1648.5	1677.2
132.5°	687.1	722.4	757.8	766.7	866.9	1000.4	1067.2	1181.9	1411.1	1583.0	1608.8
135°	719.8	752.0	784.3	792.3	881.1	999.5	1058.7	1154.7	1346.7	1490.7	1512.9
137.5°	753.2	785.0	817.0	824.9	902.4	1005.7	1057.2	1138.4	1300.8	1422.5	1440.7
140°	780.8	810.2	839.6	847.0	915.4	1006.7	1052.3	1122.4	1262.7	1367.8	1384.8
142.5°	802.2	829.4	856.5	863.3	926.3	1010.3	1052.3	1113.9	1237.0	1329.5	1344.1
145°	834.9	858.6	882.3	888.2	940.6	1010.3	1045.2	1095.6	1196.3	1271.9	1282.9
147.5°	867.5	890.6	913.7	919.5	961.4	1017.3	1045.2	1084.8	1164.1	1223.5	1232.7
150°	888.9	909.7	930.6	935.8	972.3	1020.9	1045.2	1078.7	1145.6	1195.9	1203.3
152.5°	910.9	926.7	942.5	946.5	979.3	1023.2	1045.2	1073.8	1131.0	1173.8	1179.5
155°	943.6	955.3	967.0	969.9	995.0	1028.5	1045.2	1067.9	1113.4	1147.5	1151.2
157.5°	967.7	979.1	990.5	993.4	1010.6	1033.7	1045.2	1062.9	1098.2	1124.8	1127.4
160°	984.1	993.0	1001.8	1004.0	1017.8	1036.1	1045.2	1060.4	1090.7	1113.4	1115.0
162.5°	1000.4	1007.1	1013.8	1015.4	1025.3	1038.5	1045.2	1058.0	1083.5	1102.8	1104.2
165°	1018.2	1024.2	1030.2	1031.7	1036.2	1042.2	1045.2	1054.3	1072.7	1086.5	1088.0
167.5°	1034.5	1037.3	1040.2	1040.9	1044.7	1049.7	1052.3	1058.3	1070.3	1079.3	1079.9
170°	1045.2	1048.0	1050.9	1051.6	1051.9	1052.1	1052.3	1058.3	1070.3	1079.3	1079.3
172.5°	1050.9	1051.5	1052.1	1052.3	1052.3	1052.3	1052.3	1057.1	1066.5	1073.6	1073.1
175°	1058.7	1058.7	1058.7	1058.7	1056.6	1053.7	1052.3	1055.3	1061.3	1065.8	1065.8
177.5°	1058.7	1058.7	1058.7	1058.7	1057.1	1054.8	1053.7	1056.1	1060.8	1064.4	1063.8
180°	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	356.3	356.3
2.5°	380.3	378.0
5°	489.2	491.5
7.5°	658.7	657.6
10°	819.1	829.4
12.5°	936.0	938.3
15°	1007.0	1011.6
17.5°	1034.5	1035.6
20°	1035.6	1033.3
22.5°	1023.1	1020.8
25°	1008.1	1007.0
27.5°	994.4	995.6
30°	988.7	992.2
32.5°	988.7	994.4
35°	991.0	996.7
37.5°	989.8	996.7
40°	985.2	993.3
42.5°	972.7	978.4
45°	953.2	960.0
47.5°	927.9	932.5
50°	895.9	900.5
52.5°	855.8	856.9
55°	807.7	812.3
57.5°	756.2	757.3
60°	698.8	702.3
62.5°	638.1	638.1
65°	574.0	576.3
67.5°	507.5	513.2
70°	440.0	441.1
72.5°	373.5	373.5
75°	304.8	305.9
77.5°	239.4	239.4
80°	177.6	178.7
82.5°	122.6	124.9
85°	76.8	76.8
87.5°	35.5	32.1
90°	27.0	27.0
92.5°	108.2	86.7
95°	377.0	311.9
97.5°	903.2	779.5
100°	1301.4	1153.9
102.5°	1693.1	1566.7
105°	2192.4	2124.5
107.5°	2519.5	2535.9
110°	2644.2	2714.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2655.3	2764.0
115°	2584.9	2735.6
117.5°	2435.6	2602.7
120°	2315.4	2477.7
122.5°	2198.2	2358.2
125°	2031.0	2178.5
127.5°	1880.7	2005.2
130°	1792.1	1907.1
132.5°	1711.8	1814.7
135°	1601.7	1690.4
137.5°	1513.3	1585.9
140°	1452.6	1520.5
142.5°	1402.5	1460.9
145°	1327.1	1371.3
147.5°	1269.3	1306.0
150°	1232.9	1262.7
152.5°	1201.8	1224.2
155°	1166.1	1180.9
157.5°	1137.8	1148.2
160°	1121.0	1126.9
162.5°	1109.9	1115.6
165°	1094.0	1099.9
167.5°	1082.4	1085.0
170°	1079.3	1079.3
172.5°	1070.9	1068.7
175°	1065.8	1065.8
177.5°	1061.3	1058.7
180°	1058.7	1058.7

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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	0.38	1.09	1.49	2.21	3.75	13.56	14.27	14.67	15.39	16.93
	3H	1.07	1.71	2.19	2.83	4.39	15.39	16.03	16.51	17.15	18.71
	4H	1.36	1.97	2.50	3.10	4.66	16.02	16.63	17.16	17.76	19.32
	6H	1.60	2.17	2.75	3.29	4.87	16.45	17.01	17.59	18.13	19.71
	8H	1.67	2.20	2.81	3.34	4.91	16.56	17.10	17.71	18.24	19.81
	12H	1.68	2.19	2.83	3.32	4.92	16.63	17.13	17.78	18.27	19.86
4H	2H	7.57	8.19	8.72	9.31	10.87	13.81	14.42	14.95	15.55	17.11
	3H	9.13	9.64	10.28	10.79	12.37	15.85	16.36	16.99	17.50	19.08
	4H	9.22	9.69	10.37	10.82	12.42	16.61	17.08	17.76	18.21	19.81
	6H	9.22	9.62	10.38	10.78	12.37	17.14	17.54	18.29	18.70	20.29
	8H	9.19	9.57	10.35	10.72	12.33	17.29	17.67	18.45	18.82	20.43
	12H	9.14	9.48	10.31	10.65	12.26	17.38	17.72	18.55	18.89	20.50
8H	4H	10.65	11.03	11.80	12.18	13.78	16.65	17.03	17.81	18.18	19.79
	6H	10.88	11.20	12.06	12.39	13.99	17.28	17.59	18.45	18.78	20.38
	8H	10.90	11.17	12.08	12.34	13.97	17.49	17.77	18.68	18.94	20.56
	12H	10.86	11.10	12.05	12.27	13.93	17.63	17.87	18.82	19.04	20.69
12H	4H	10.79	11.13	11.96	12.29	13.90	16.60	16.94	17.77	18.10	19.71
	6H	11.14	11.41	12.32	12.59	14.21	17.26	17.53	18.44	18.70	20.32
	8H	11.20	11.44	12.39	12.61	14.27	17.48	17.72	18.67	18.89	20.54