

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: P938211

Luminaire Tested: SQ4-FB-150U-050D-830-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938211
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

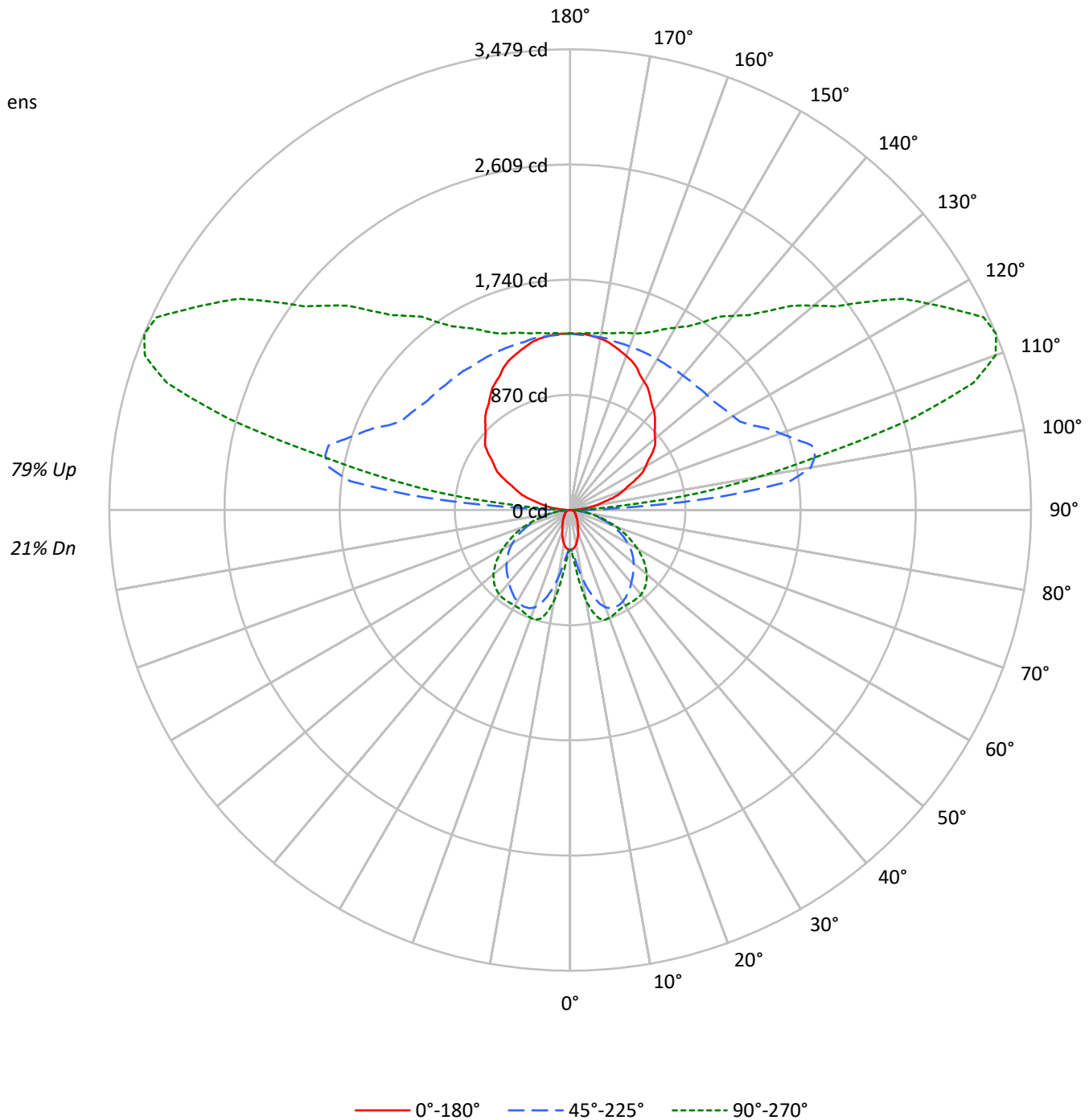
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10957.7 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 83.4
Input Voltage (V): NR
Input Current (A_{in}): 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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1850	1850	1850
5°	1807	2137	2487
10°	1638	3115	4123
15°	1392	4069	4978
20°	1133	4715	5073
25°	945	4932	4971
30°	796	4962	4961
35°	704	4878	5089
40°	613	4770	5222
45°	554	4690	5242
50°	508	4618	5155
55°	487	4513	4927
60°	498	4314	4566
65°	516	4010	4069
70°	548	3495	3439
75°	608	2846	2684
80°	657	1972	1808
85°	578	1044	925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5242 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	0.4
10°-20°	171.5	1.6
20°-30°	299.9	2.7
30°-40°	386.1	3.5
40°-50°	431.2	3.9
50°-60°	413.0	3.8
60°-70°	327.3	3.0
70°-80°	192.5	1.8
80°-90°	58.6	0.5
90°-100°	649.6	5.9
100°-110°	1707.8	15.6
110°-120°	1770.8	16.2
120°-130°	1420.4	13.0
130°-140°	1114.5	10.2
140°-150°	855.5	7.8
150°-160°	616.1	5.6
160°-170°	376.9	3.4
170°-180°	127.4	1.2
0°-30°	510.0	4.7
0°-40°	896.1	8.2
0°-60°	1740.3	15.9
0°-90°	2318.6	21.2
90°-120°	4128.3	37.7
90°-150°	7518.7	68.6
90°-180°	8639.0	78.8
0°-180°	10957.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	299	299	299	299	299	
5°	291	312	352	398	412	27
15°	218	403	679	823	849	61
25°	140	457	809	844	845	64
35°	94	437	762	805	837	59
45°	64	348	673	771	806	50
55°	46	221	571	664	682	42
65°	36	117	424	477	484	36
75°	27	72	233	256	257	28
85°	10	22	58	64	64	10
90°	9	25	68	34	34	8
95°	86	336	1119	577	393	95
105°	308	466	1888	2867	2674	326
115°	546	664	1512	3017	3443	540
125°	760	852	1376	2324	2742	675
135°	906	997	1333	1876	2128	701
145°	1051	1118	1316	1601	1726	658
155°	1188	1221	1316	1444	1486	546
165°	1282	1299	1316	1368	1384	362
175°	1333	1333	1325	1342	1342	127
180°	1333	1333	1333	1333	1333	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0	299.0
2.5°	299.0	299.0	300.9	301.9	303.9	304.9	306.8	308.7	314.4	315.4	317.3
5°	291.4	295.2	307.7	312.5	326.0	344.3	351.9	364.4	390.4	398.1	403.0
7.5°	279.8	288.5	319.2	327.0	360.6	408.7	428.9	455.8	497.1	517.4	533.7
10°	261.6	279.8	334.6	353.0	407.7	480.8	518.3	555.8	618.3	646.2	656.8
12.5°	241.4	271.2	350.9	376.0	454.9	561.6	606.8	648.2	719.3	756.8	762.5
15°	218.3	258.7	366.3	403.0	504.9	628.9	678.9	729.9	796.3	823.1	829.9
17.5°	198.1	249.0	380.8	419.3	543.3	689.5	740.4	782.8	836.6	854.9	859.6
20°	173.1	233.6	390.4	440.4	583.7	733.7	782.8	815.5	852.0	863.6	865.5
22.5°	154.8	217.3	396.2	448.1	610.6	760.6	802.0	827.9	852.9	856.8	857.7
25°	139.5	199.0	395.2	456.8	633.7	776.9	808.7	827.9	842.3	844.2	844.2
27.5°	125.0	178.9	391.4	458.7	651.0	780.9	805.8	819.3	826.0	829.9	829.9
30°	112.5	159.7	381.7	454.9	658.7	776.9	797.2	803.9	810.6	816.4	819.3
32.5°	102.9	141.4	367.3	447.1	659.6	767.4	781.8	785.6	795.2	808.7	813.6
35°	94.3	123.1	350.9	436.6	653.9	752.0	761.5	765.5	784.7	804.9	811.5
37.5°	85.6	109.7	329.8	418.3	645.2	733.7	740.4	747.2	776.9	801.0	808.7
40°	77.0	98.1	304.9	398.1	631.8	711.6	717.4	727.9	767.4	795.2	802.9
42.5°	70.2	88.4	277.9	377.0	614.4	686.6	695.2	710.6	755.8	785.6	794.2
45°	64.4	78.9	249.0	348.1	592.3	660.6	673.1	694.2	742.3	771.2	778.9
47.5°	58.7	72.1	219.2	318.3	568.3	634.7	651.0	675.0	724.1	752.0	758.7
50°	53.8	65.4	189.5	286.5	542.3	606.8	626.0	651.0	701.0	726.9	735.6
52.5°	50.0	59.7	161.6	254.9	512.5	577.9	600.1	626.0	673.1	698.2	703.9
55°	46.2	54.8	137.5	221.1	481.7	547.1	571.2	596.2	642.3	663.5	667.4
57.5°	44.3	51.0	117.3	189.5	449.0	512.5	539.5	562.5	605.8	622.2	626.0
60°	41.4	48.1	101.9	162.5	413.5	479.8	503.0	526.0	562.5	576.0	578.9
62.5°	38.4	46.2	90.4	136.5	377.0	441.4	464.4	485.6	516.3	526.0	529.8
65°	36.5	44.3	81.7	117.3	339.5	400.9	424.1	442.3	467.3	476.9	478.9
67.5°	34.6	42.4	75.0	101.0	301.9	360.6	377.9	395.2	414.4	424.1	425.0
70°	31.7	40.3	69.2	89.4	263.5	314.4	328.9	347.1	362.5	367.3	370.3
72.5°	29.8	37.5	65.4	80.8	224.1	270.2	283.6	294.3	307.7	312.5	312.5
75°	27.0	33.7	61.6	72.1	183.6	221.1	232.7	243.3	253.8	255.8	252.9
77.5°	24.0	29.8	52.9	60.6	143.3	175.0	184.6	190.4	199.0	201.0	201.9
80°	20.2	26.0	41.4	47.1	103.8	128.9	135.6	140.4	148.1	148.1	150.0
82.5°	15.4	20.2	29.8	33.7	70.2	88.4	94.3	97.1	101.9	101.9	101.9
85°	9.7	12.5	19.2	22.1	42.4	53.8	57.7	58.7	62.5	63.5	63.5
87.5°	4.8	6.7	12.5	13.5	22.1	27.9	27.9	29.8	29.8	28.9	27.9
90°	9.0	16.2	23.2	25.0	39.4	58.4	68.0	60.4	45.3	34.0	34.0
92.5°	35.8	96.6	157.5	172.7	242.7	336.1	382.8	335.5	240.9	170.0	163.2
95°	85.8	197.1	308.5	336.3	597.2	945.0	1118.9	998.4	757.5	576.9	556.4
97.5°	148.5	246.6	344.8	369.4	804.4	1384.4	1674.3	1598.2	1446.0	1331.8	1292.8
100°	196.7	285.8	374.8	397.1	879.8	1523.4	1845.2	1850.7	1861.9	1870.2	1823.9
102.5°	237.9	321.0	404.1	424.8	914.4	1567.1	1893.5	1990.4	2184.4	2329.9	2290.1
105°	307.6	378.0	448.4	466.0	940.0	1572.0	1888.1	2105.5	2540.4	2866.6	2845.2
107.5°	379.2	444.8	510.4	526.8	944.7	1502.1	1780.7	2084.1	2690.7	3145.6	3150.8
110°	427.5	486.8	546.0	560.8	937.6	1440.0	1691.3	2030.4	2708.5	3217.1	3239.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	474.9	531.3	587.7	601.9	937.9	1385.9	1609.9	1956.9	2651.0	3171.5	3205.8
115°	546.4	598.6	650.7	663.7	946.5	1323.8	1512.4	1846.7	2515.3	3016.8	3064.2
117.5°	617.1	664.4	711.7	723.6	964.2	1285.0	1445.4	1747.1	2350.4	2803.0	2855.6
120°	658.3	702.9	747.4	758.5	978.5	1271.9	1418.5	1694.2	2245.5	2659.0	2710.1
122.5°	698.5	743.5	788.4	799.6	999.0	1265.0	1398.0	1646.2	2142.7	2515.0	2565.4
125°	760.2	801.1	842.1	852.4	1026.7	1259.3	1375.6	1586.5	2008.2	2324.5	2370.9
127.5°	810.3	851.6	893.0	903.3	1054.5	1256.0	1356.8	1537.8	1900.0	2171.6	2210.8
130°	837.2	881.7	926.3	937.4	1074.8	1258.1	1349.7	1510.9	1833.2	2075.0	2111.1
132.5°	864.9	909.4	954.0	965.1	1091.2	1259.3	1343.4	1487.6	1776.2	1992.7	2025.1
135°	906.0	946.5	987.2	997.3	1109.1	1258.1	1332.7	1453.5	1695.2	1876.4	1904.4
137.5°	948.1	988.2	1028.4	1038.4	1135.9	1265.8	1330.8	1433.0	1637.3	1790.6	1813.4
140°	983.0	1020.0	1056.9	1066.1	1152.3	1267.2	1324.6	1412.9	1589.4	1721.8	1743.1
142.5°	1009.7	1044.0	1078.2	1086.7	1166.0	1271.8	1324.6	1402.2	1557.1	1673.4	1691.7
145°	1050.9	1080.8	1110.6	1118.0	1183.9	1271.8	1315.6	1379.0	1505.9	1601.0	1614.9
147.5°	1092.0	1121.1	1150.1	1157.3	1210.1	1280.5	1315.6	1365.6	1465.3	1540.1	1551.7
150°	1118.9	1145.1	1171.3	1177.9	1223.8	1285.1	1315.6	1357.8	1442.0	1505.2	1514.6
152.5°	1146.6	1166.5	1186.4	1191.4	1232.8	1288.0	1315.6	1351.6	1423.6	1477.5	1484.6
155°	1187.7	1202.5	1217.2	1220.8	1252.5	1294.6	1315.6	1344.2	1401.5	1444.4	1449.1
157.5°	1218.1	1232.5	1246.8	1250.4	1272.1	1301.1	1315.6	1337.9	1382.5	1415.8	1419.1
160°	1238.8	1249.9	1261.0	1263.7	1281.0	1304.1	1315.6	1334.8	1372.9	1401.5	1403.4
162.5°	1259.3	1267.7	1276.0	1278.1	1290.6	1307.3	1315.6	1331.7	1363.9	1388.1	1389.9
165°	1281.7	1289.3	1296.7	1298.6	1304.3	1311.8	1315.6	1327.2	1350.3	1367.6	1369.5
167.5°	1302.3	1305.8	1309.4	1310.3	1315.1	1321.5	1324.6	1332.2	1347.3	1358.6	1359.3
170°	1315.6	1319.2	1322.8	1323.7	1324.0	1324.4	1324.6	1332.2	1347.3	1358.6	1358.6
172.5°	1322.8	1323.6	1324.4	1324.6	1324.6	1324.6	1324.6	1330.6	1342.5	1351.4	1350.7
175°	1332.7	1332.7	1332.7	1332.7	1330.0	1326.4	1324.6	1328.4	1335.9	1341.6	1341.6
177.5°	1332.7	1332.7	1332.7	1332.7	1330.6	1327.8	1326.4	1329.3	1335.3	1339.8	1339.1
180°	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	299.0	299.0
2.5°	319.2	317.3
5°	410.6	412.5
7.5°	553.0	552.0
10°	687.6	696.2
12.5°	785.6	787.6
15°	845.3	849.1
17.5°	868.3	869.3
20°	869.3	867.4
22.5°	858.7	856.8
25°	846.3	845.3
27.5°	834.7	835.6
30°	829.9	832.8
32.5°	829.9	834.7
35°	831.8	836.6
37.5°	830.9	836.6
40°	826.9	833.7
42.5°	816.4	821.2
45°	800.1	805.8
47.5°	778.9	782.8
50°	752.0	755.8
52.5°	718.3	719.3
55°	677.9	681.8
57.5°	634.7	635.6
60°	586.6	589.5
62.5°	535.6	535.6
65°	481.7	483.6
67.5°	426.0	430.8
70°	369.3	370.3
72.5°	313.5	313.5
75°	255.8	256.8
77.5°	201.0	201.0
80°	149.0	150.0
82.5°	102.9	104.8
85°	64.4	64.4
87.5°	29.8	27.0
90°	34.0	34.0
92.5°	136.1	109.1
95°	474.5	392.6
97.5°	1137.0	981.1
100°	1638.2	1452.5
102.5°	2131.1	1972.1
105°	2759.7	2674.2
107.5°	3171.4	3192.1
110°	3328.4	3417.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3342.5	3479.2
115°	3253.7	3443.4
117.5°	3065.9	3276.2
120°	2914.5	3118.8
122.5°	2767.0	2968.5
125°	2556.5	2742.2
127.5°	2367.3	2524.0
130°	2255.9	2400.5
132.5°	2154.6	2284.3
135°	2016.1	2127.8
137.5°	1904.9	1996.3
140°	1828.5	1914.0
142.5°	1765.3	1838.9
145°	1670.5	1726.2
147.5°	1597.8	1643.9
150°	1552.0	1589.4
152.5°	1512.8	1541.1
155°	1467.7	1486.5
157.5°	1432.3	1445.4
160°	1411.0	1418.5
162.5°	1397.0	1404.2
165°	1376.9	1384.5
167.5°	1362.6	1365.7
170°	1358.6	1358.6
172.5°	1348.0	1345.2
175°	1341.6	1341.6
177.5°	1335.8	1332.7
180°	1332.7	1332.7



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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	0.00	0.23	0.73	1.38	3.01	12.73	13.39	13.89	14.55	16.18
	3H	0.25	0.85	1.43	2.01	3.65	14.55	15.14	15.72	16.30	17.95
	4H	0.54	1.11	1.72	2.27	3.92	15.18	15.75	16.36	16.91	18.56
	6H	0.78	1.30	1.97	2.47	4.13	15.59	16.12	16.78	17.28	18.94
	8H	0.84	1.34	2.04	2.52	4.17	15.71	16.20	16.90	17.38	19.03
	12H	0.86	1.33	2.05	2.50	4.17	15.77	16.24	16.96	17.41	19.08
4H	2H	6.74	7.31	7.94	8.47	10.12	12.98	13.54	14.17	14.71	16.35
	3H	8.29	8.77	9.49	9.96	11.62	15.00	15.47	16.19	16.66	18.32
	4H	8.38	8.82	9.58	9.99	11.67	15.75	16.19	16.95	17.37	19.04
	6H	8.38	8.75	9.58	9.95	11.62	16.28	16.65	17.48	17.85	19.51
	8H	8.35	8.70	9.55	9.89	11.57	16.43	16.78	17.63	17.97	19.65
	12H	8.30	8.62	9.51	9.81	11.50	16.51	16.83	17.73	18.03	19.72
8H	4H	9.80	10.15	11.00	11.34	13.03	15.80	16.15	17.00	17.34	19.02
	6H	10.04	10.33	11.25	11.56	13.24	16.41	16.70	17.63	17.93	19.61
	8H	10.05	10.30	11.27	11.51	13.21	16.63	16.88	17.85	18.09	19.79
	12H	10.01	10.23	11.24	11.44	13.17	16.76	16.98	17.99	18.18	19.92
12H	4H	9.94	10.25	11.15	11.45	13.14	15.74	16.06	16.95	17.26	18.95
	6H	10.29	10.54	11.51	11.75	13.45	16.39	16.64	17.62	17.85	19.55
	8H	10.35	10.57	11.58	11.78	13.51	16.61	16.83	17.84	18.04	19.77