

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: P937211

Luminaire Tested: SQ4-FB-075U-100D-830-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

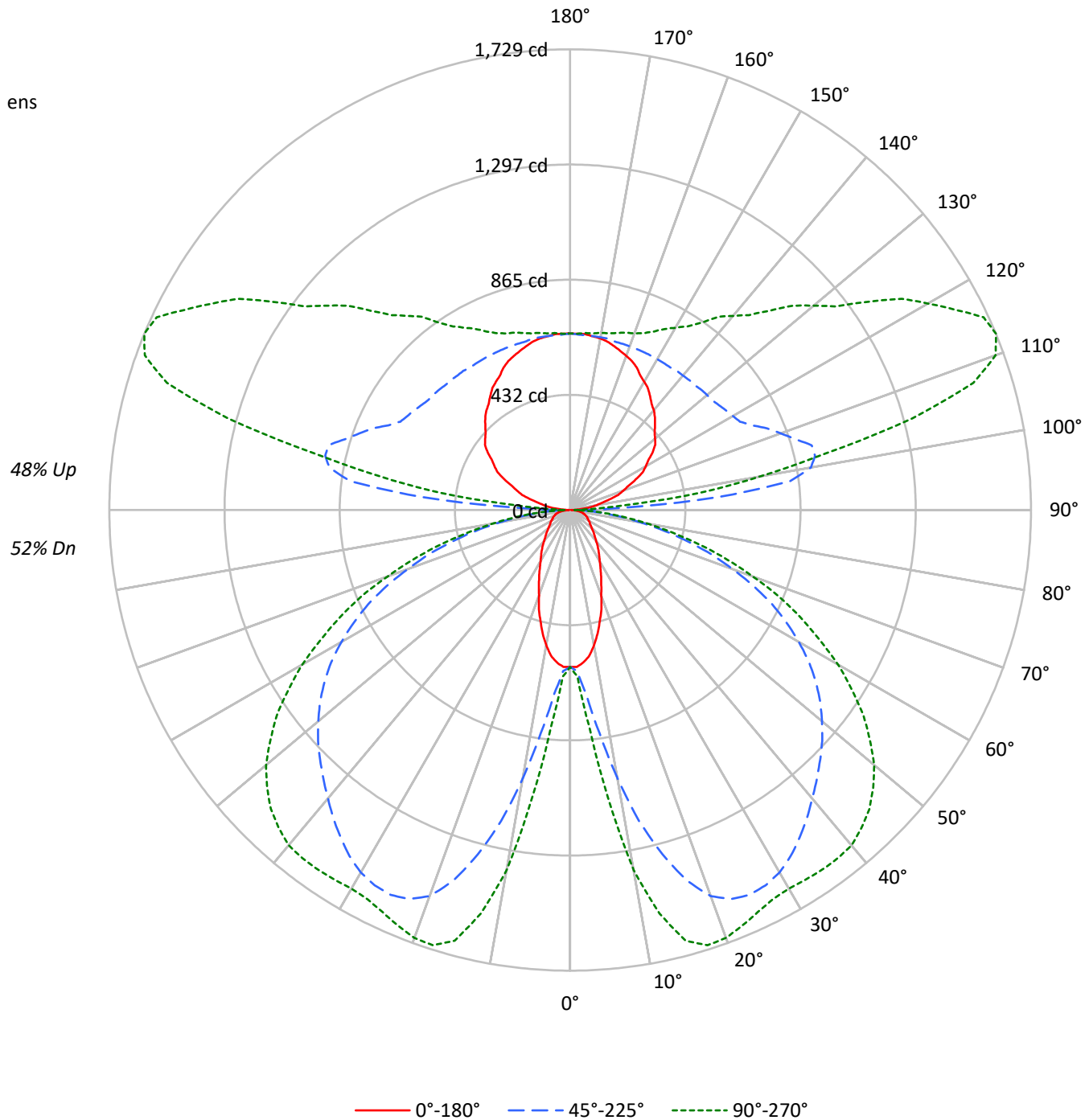
Test Method: LM-79-2019  
Report Number: P937211  
REPORT IS A COMBINATION OF REPORTS P933511 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-100D-830-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8854.5 lumens  
Efficiency: N/A  
Efficacy: 115.3 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: General Diffuse  
  
Input Watts (W): 76.8  
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				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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	47	47	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	39	39	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	32	32	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	27	27	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	23	23	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	20	20	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	18	18	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	16	16	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	14	14	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	12	12	12	10

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

	0°	45°	90°
0°	3645	3645	3645
5°	3560	4212	4900
10°	3227	6138	8123
15°	2742	8017	9808
20°	2231	9288	9995
25°	1861	9718	9793
30°	1569	9776	9774
35°	1386	9611	10027
40°	1207	9398	10288
45°	1093	9241	10328
50°	1001	9099	10158
55°	958	8892	9707
60°	980	8498	8995
65°	1018	7900	8019
70°	1081	6885	6775
75°	1195	5608	5286
80°	1295	3884	3563
85°	1127	2058	1824

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10328 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.2	0.9
10°-20°	337.8	3.8
20°-30°	590.9	6.7
30°-40°	760.6	8.6
40°-50°	849.6	9.6
50°-60°	813.7	9.2
60°-70°	644.9	7.3
70°-80°	379.2	4.3
80°-90°	107.9	1.2
90°-100°	322.8	3.6
100°-110°	848.8	9.6
110°-120°	880.1	9.9
120°-130°	706.0	8.0
130°-140°	553.9	6.3
140°-150°	425.2	4.8
150°-160°	306.2	3.5
160°-170°	187.3	2.1
170°-180°	63.3	0.7
0°-30°	1004.9	11.3
0°-40°	1765.5	19.9
0°-60°	3428.8	38.7
0°-90°	4560.8	51.5
90°-120°	2051.8	23.2
90°-150°	3736.9	42.2
90°-180°	4294.0	48.5
0°-180°	8854.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	574	616	693	784	813	53
15°	430	794	1338	1622	1673	120
25°	275	900	1593	1663	1665	127
35°	186	860	1500	1586	1648	116
45°	127	686	1326	1520	1588	98
55°	91	436	1125	1307	1343	83
65°	72	231	836	940	953	71
75°	53	142	458	504	506	56
85°	19	44	114	125	127	20
90°	4	12	34	17	17	5
95°	43	167	556	287	195	47
105°	153	232	938	1425	1329	162
115°	272	330	752	1499	1711	268
125°	378	424	684	1155	1363	335
135°	450	496	662	933	1058	348
145°	522	556	654	796	858	327
155°	590	607	654	718	739	271
165°	637	646	654	680	688	180
175°	662	662	658	667	667	63
180°	662	662	662	662	662	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2
2.5°	589.2	589.2	593.0	594.9	598.6	600.6	604.4	608.2	619.5	621.4	625.2
5°	574.1	581.6	606.3	615.8	642.2	678.3	693.4	718.1	769.2	784.4	793.9
7.5°	551.3	568.3	629.0	644.2	710.5	805.2	845.0	898.1	979.5	1019.3	1051.5
10°	515.3	551.3	659.4	695.3	803.3	947.3	1021.2	1095.1	1218.2	1273.2	1294.0
12.5°	475.5	534.3	691.6	740.8	896.2	1106.5	1195.5	1276.9	1417.2	1491.1	1502.4
15°	430.1	509.6	721.9	793.9	994.6	1239.1	1337.6	1438.0	1568.7	1621.8	1635.0
17.5°	390.3	490.7	750.3	826.1	1070.4	1358.5	1458.9	1542.2	1648.3	1684.3	1693.7
20°	341.0	460.4	769.2	867.8	1150.1	1445.6	1542.2	1606.7	1678.6	1701.4	1705.1
22.5°	305.1	428.2	780.6	882.9	1203.0	1498.6	1580.1	1631.2	1680.6	1688.1	1690.0
25°	274.8	392.2	778.7	900.0	1248.5	1530.8	1593.4	1631.2	1659.7	1663.4	1663.4
27.5°	246.3	352.4	771.1	903.7	1282.7	1538.4	1587.6	1614.2	1627.5	1635.0	1635.0
30°	221.7	314.5	752.2	896.2	1297.8	1530.8	1570.6	1583.9	1597.2	1608.5	1614.2
32.5°	202.8	278.5	723.7	881.0	1299.7	1511.9	1540.3	1547.9	1566.8	1593.4	1602.8
35°	185.7	242.5	691.6	860.1	1288.3	1481.6	1500.5	1508.1	1545.9	1585.8	1599.0
37.5°	168.6	216.0	649.9	824.2	1271.3	1445.6	1458.9	1472.1	1530.8	1578.2	1593.4
40°	151.5	193.2	600.6	784.4	1244.7	1402.0	1413.4	1434.2	1511.9	1566.8	1582.0
42.5°	138.3	174.3	547.5	742.7	1210.7	1352.7	1369.8	1400.1	1489.2	1547.9	1565.0
45°	127.0	155.4	490.7	685.8	1167.1	1301.6	1326.3	1367.9	1462.6	1519.5	1534.7
47.5°	115.6	142.1	432.0	627.1	1119.7	1250.4	1282.7	1330.0	1426.6	1481.6	1494.8
50°	106.1	128.9	373.2	564.6	1068.5	1195.5	1233.4	1282.7	1381.1	1432.3	1449.4
52.5°	98.6	117.5	318.3	502.1	1009.8	1138.7	1182.2	1233.4	1326.3	1375.5	1386.9
55°	90.9	108.0	270.9	435.7	949.2	1078.0	1125.4	1174.6	1265.6	1307.2	1314.9
57.5°	87.2	100.4	231.2	373.2	884.8	1009.8	1062.9	1108.4	1193.6	1225.8	1233.4
60°	81.5	94.7	200.9	320.2	814.7	945.4	990.9	1036.3	1108.4	1134.9	1140.5
62.5°	75.8	90.9	178.1	269.0	742.7	869.6	915.1	956.8	1017.4	1036.3	1044.0
65°	72.0	87.2	161.1	231.2	668.8	790.0	835.5	871.5	920.8	939.7	943.5
67.5°	68.2	83.4	147.8	198.9	594.9	710.5	744.5	778.7	816.6	835.5	837.5
70°	62.5	79.5	136.4	176.2	519.1	619.5	648.0	683.9	714.2	723.7	729.4
72.5°	58.7	73.9	128.9	159.2	441.5	532.4	558.9	579.7	606.3	615.8	615.8
75°	53.1	66.3	121.2	142.1	361.8	435.7	458.5	479.3	500.2	504.0	498.3
77.5°	47.3	58.7	104.2	119.4	282.3	344.8	363.8	375.1	392.2	396.0	397.9
80°	39.8	51.1	81.5	92.8	204.6	253.9	267.1	276.6	291.8	291.8	295.6
82.5°	30.3	39.8	58.7	66.3	138.3	174.3	185.7	191.4	200.9	200.9	200.9
85°	18.9	24.7	37.9	43.6	83.4	106.1	113.7	115.6	123.1	125.0	125.0
87.5°	9.5	13.3	24.7	26.5	43.6	55.0	55.0	58.7	58.7	56.9	55.0
90°	4.4	7.9	11.6	12.4	19.5	29.0	33.7	30.0	22.6	16.9	16.9
92.5°	17.8	48.0	78.2	85.8	120.6	167.0	190.2	166.7	119.7	84.4	81.1
95°	42.6	98.0	153.2	167.1	296.7	469.7	556.1	496.3	376.5	286.7	276.6
97.5°	73.8	122.6	171.3	183.6	399.8	688.0	832.2	794.3	718.7	661.9	642.5
100°	97.8	142.1	186.3	197.4	437.3	757.2	917.1	919.9	925.4	929.5	906.5
102.5°	118.3	159.6	200.9	211.2	454.5	778.9	941.1	989.3	1085.7	1158.0	1138.2
105°	153.0	187.9	222.9	231.6	467.2	781.3	938.4	1046.4	1262.6	1424.7	1414.1
107.5°	188.5	221.1	253.7	261.8	469.6	746.5	885.1	1035.8	1337.3	1563.4	1566.0
110°	212.5	242.0	271.3	278.7	466.0	715.8	840.6	1009.2	1346.2	1599.0	1610.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	236.0	264.0	292.2	299.1	466.1	688.8	800.2	972.6	1317.6	1576.3	1593.3
115°	271.6	297.5	323.3	329.8	470.4	657.9	751.7	917.9	1250.2	1499.4	1522.9
117.5°	306.7	330.2	353.7	359.6	479.2	638.6	718.3	868.3	1168.2	1393.2	1419.3
120°	327.1	349.3	371.4	377.0	486.3	632.1	705.0	842.0	1116.0	1321.6	1347.0
122.5°	347.2	369.5	391.9	397.4	496.5	628.8	694.8	818.1	1064.9	1250.0	1275.0
125°	377.8	398.2	418.5	423.6	510.3	625.9	683.7	788.5	998.2	1155.3	1178.4
127.5°	402.8	423.3	443.8	448.9	524.1	624.3	674.4	764.3	944.3	1079.3	1098.8
130°	416.1	438.2	460.3	465.9	534.2	625.3	670.8	750.9	911.2	1031.3	1049.3
132.5°	429.8	452.0	474.1	479.6	542.3	625.9	667.7	739.4	882.9	990.4	1006.5
135°	450.3	470.4	490.6	495.7	551.2	625.3	662.3	722.4	842.5	932.6	946.4
137.5°	471.2	491.1	511.1	516.0	564.5	629.1	661.5	712.2	813.7	889.9	901.3
140°	488.5	506.9	525.3	529.9	572.7	629.8	658.3	702.2	789.9	855.7	866.3
142.5°	501.9	518.9	535.9	540.1	579.5	632.0	658.3	696.8	773.9	831.7	840.9
145°	522.4	537.2	551.9	555.6	588.4	632.1	653.9	685.5	748.5	795.7	802.6
147.5°	542.7	557.2	571.6	575.2	601.4	636.4	653.9	678.7	728.3	765.5	771.2
150°	556.1	569.1	582.2	585.5	608.3	638.7	653.9	674.8	716.7	748.2	752.8
152.5°	569.9	579.8	589.7	592.1	612.7	640.1	653.9	671.8	707.5	734.4	737.9
155°	590.3	597.6	605.0	606.8	622.5	643.4	653.9	668.1	696.6	718.0	720.3
157.5°	605.4	612.6	619.7	621.5	632.3	646.7	653.9	665.0	687.1	703.7	705.3
160°	615.7	621.2	626.8	628.1	636.7	648.2	653.9	663.4	682.3	696.5	697.5
162.5°	625.9	630.1	634.2	635.3	641.5	649.8	653.9	661.9	677.9	689.9	690.8
165°	637.0	640.8	644.5	645.5	648.3	652.0	653.9	659.6	671.1	679.7	680.7
167.5°	647.2	649.0	650.7	651.2	653.6	656.8	658.3	662.0	669.6	675.2	675.6
170°	653.9	655.7	657.4	657.9	658.0	658.2	658.3	662.0	669.6	675.2	675.2
172.5°	657.4	657.8	658.2	658.3	658.3	658.3	658.3	661.3	667.2	671.7	671.3
175°	662.3	662.3	662.3	662.3	661.0	659.2	658.3	660.2	663.9	666.8	666.8
177.5°	662.3	662.3	662.3	662.3	661.3	659.9	659.3	660.8	663.8	665.9	665.6
180°	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	589.2	589.2
2.5°	629.0	625.2
5°	809.0	812.8
7.5°	1089.4	1087.5
10°	1354.7	1371.7
12.5°	1547.9	1551.7
15°	1665.4	1672.9
17.5°	1710.9	1712.7
20°	1712.7	1708.9
22.5°	1691.8	1688.1
25°	1667.3	1665.4
27.5°	1644.5	1646.4
30°	1635.0	1640.7
32.5°	1635.0	1644.5
35°	1638.9	1648.3
37.5°	1637.0	1648.3
40°	1629.3	1642.6
42.5°	1608.5	1618.0
45°	1576.3	1587.6
47.5°	1534.7	1542.2
50°	1481.6	1489.2
52.5°	1415.3	1417.2
55°	1335.7	1343.3
57.5°	1250.4	1252.4
60°	1155.7	1161.3
62.5°	1055.3	1055.3
65°	949.2	952.9
67.5°	839.3	848.7
70°	727.5	729.4
72.5°	617.7	617.7
75°	504.0	505.8
77.5°	396.0	396.0
80°	293.7	295.6
82.5°	202.8	206.5
85°	127.0	127.0
87.5°	58.7	53.1
90°	16.9	16.9
92.5°	67.6	54.2
95°	235.8	195.1
97.5°	565.1	487.7
100°	814.1	721.9
102.5°	1059.2	980.2
105°	1371.6	1329.1
107.5°	1576.3	1586.5
110°	1654.3	1698.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1661.2	1729.2
115°	1617.2	1711.4
117.5°	1523.8	1628.3
120°	1448.5	1550.1
122.5°	1375.2	1475.4
125°	1270.7	1363.0
127.5°	1176.6	1254.5
130°	1121.2	1193.1
132.5°	1070.9	1135.3
135°	1002.0	1057.5
137.5°	946.7	992.2
140°	908.9	951.3
142.5°	877.4	913.9
145°	830.3	857.9
147.5°	794.1	817.0
150°	771.4	789.9
152.5°	751.9	765.9
155°	729.5	738.8
157.5°	711.8	718.3
160°	701.2	705.0
162.5°	694.3	697.9
165°	684.4	688.1
167.5°	677.2	678.8
170°	675.2	675.2
172.5°	670.0	668.5
175°	666.8	666.8
177.5°	663.9	662.3
180°	662.3	662.3



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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	5.63	6.55	6.57	7.51	8.75	18.80	19.71	19.73	20.67	21.92
	3H	6.34	7.16	7.29	8.13	9.40	20.63	21.46	21.58	22.43	23.69
	4H	6.64	7.42	7.60	8.39	9.67	21.28	22.06	22.24	23.03	24.31
	6H	6.90	7.62	7.87	8.59	9.88	21.71	22.43	22.68	23.40	24.70
	8H	6.97	7.65	7.94	8.65	9.93	21.83	22.51	22.81	23.51	24.80
	12H	6.98	7.64	7.97	8.63	9.94	21.90	22.55	22.88	23.54	24.85
4H	2H	12.84	13.62	13.81	14.60	15.87	19.08	19.86	20.04	20.83	22.11
	3H	14.42	15.07	15.40	16.07	17.36	21.12	21.78	22.10	22.78	24.07
	4H	14.52	15.11	15.50	16.11	17.42	21.89	22.49	22.88	23.48	24.80
	6H	14.53	15.05	15.53	16.06	17.38	22.43	22.94	23.43	23.96	25.28
	8H	14.51	14.99	15.51	16.00	17.33	22.59	23.07	23.59	24.08	25.41
	12H	14.47	14.90	15.49	15.93	17.27	22.68	23.12	23.70	24.15	25.48
8H	4H	15.96	16.44	16.96	17.46	18.78	21.95	22.44	22.95	23.45	24.78
	6H	16.21	16.61	17.23	17.66	18.99	22.58	22.98	23.61	24.04	25.36
	8H	16.23	16.58	17.26	17.62	18.96	22.80	23.15	23.83	24.19	25.54
	12H	16.20	16.51	17.23	17.54	18.93	22.94	23.26	23.98	24.29	25.68
12H	4H	16.11	16.54	17.13	17.57	18.90	21.91	22.35	22.93	23.37	24.71
	6H	16.46	16.82	17.50	17.86	19.20	22.57	22.92	23.60	23.96	25.30
	8H	16.54	16.85	17.57	17.88	19.27	22.80	23.11	23.83	24.14	25.53