

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: P936411

Luminaire Tested: SQ4-FB-025U-100D-830-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

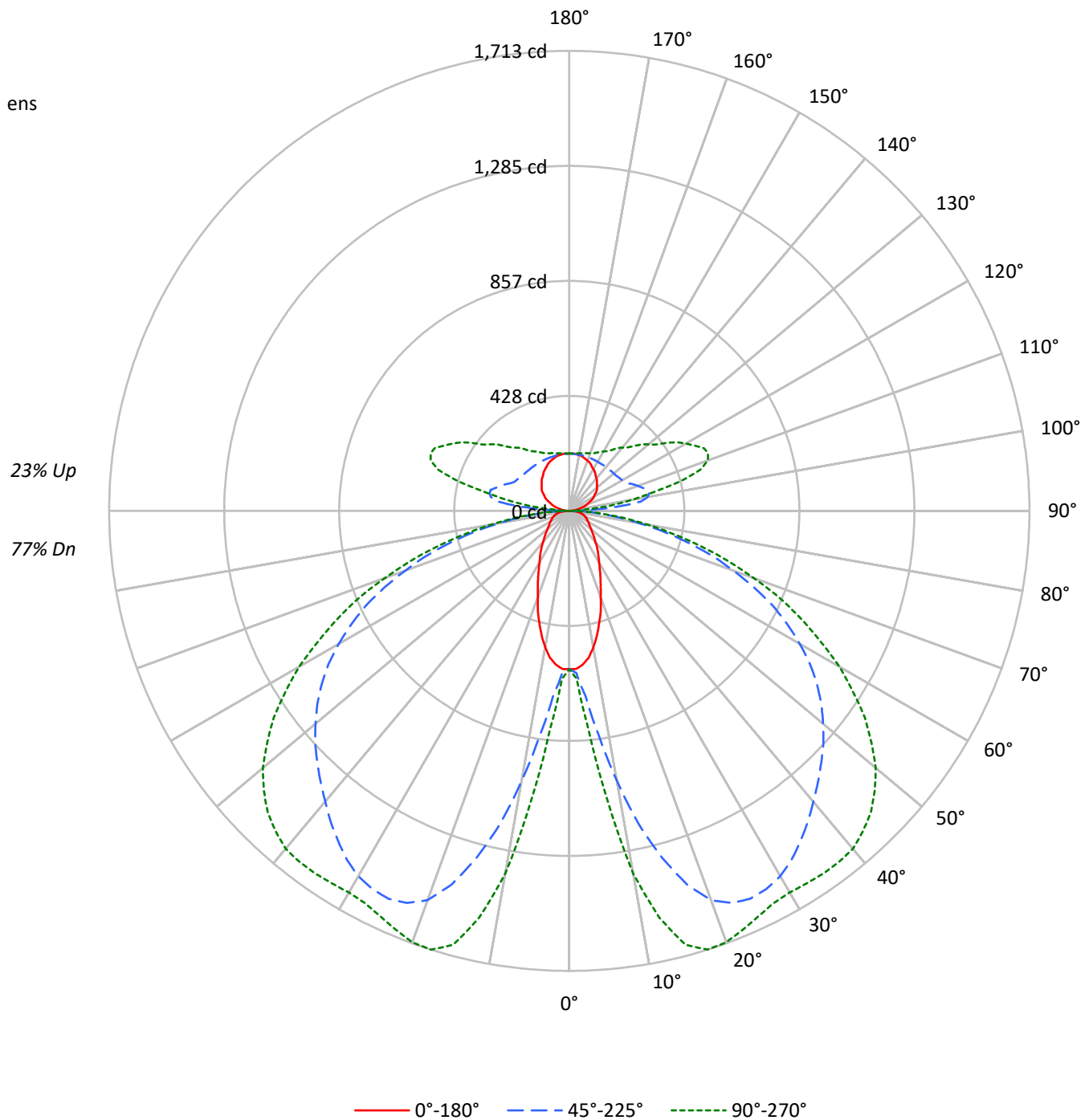
Test Method: LM-79-2019  
Report Number: P936411  
REPORT IS A COMBINATION OF REPORTS P933447 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-100D-830-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5946.3 lumens  
Efficiency: N/A  
Efficacy: 102.2 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-Direct  
  
Input Watts (W): 58.2  
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				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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77				77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66	63				63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55	51				51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45	42				42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38	35				35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33	30				30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28	26				26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25	22				22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22	20				20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	19	17				17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17	16				16

**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	1.3
10°-20°	337.8	5.7
20°-30°	590.9	9.9
30°-40°	760.6	12.8
40°-50°	849.6	14.3
50°-60°	813.7	13.7
60°-70°	644.9	10.8
70°-80°	379.2	6.4
80°-90°	106.2	1.8
90°-100°	104.3	1.8
100°-110°	274.2	4.6
110°-120°	284.4	4.8
120°-130°	228.1	3.8
130°-140°	179.0	3.0
140°-150°	137.4	2.3
150°-160°	98.9	1.7
160°-170°	60.5	1.0
170°-180°	20.5	0.3
0°-30°	1004.9	16.9
0°-40°	1765.5	29.7
0°-60°	3428.8	57.7
0°-90°	4559.1	76.7
90°-120°	662.9	11.1
90°-150°	1207.4	20.3
90°-180°	1387.0	23.3
0°-180°	5946.3	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°	1	4	11	5	5	2
95°	14	54	180	93	63	15
105°	49	75	303	460	429	52
115°	88	107	243	484	553	87
125°	122	137	221	373	440	108
135°	146	160	214	301	342	113
145°	169	180	211	257	277	106
155°	191	196	211	232	239	88
165°	206	208	211	220	222	58
175°	214	214	213	216	216	20
180°	214	214	214	214	214	



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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°	1.4	2.6	3.7	4.0	6.3	9.4	10.9	9.7	7.3	5.4	5.4
92.5°	5.7	15.5	25.2	27.7	39.0	54.0	61.5	53.8	38.6	27.2	26.2
95°	13.8	31.6	49.5	54.0	95.9	151.7	179.6	160.3	121.6	92.6	89.4
97.5°	23.8	39.6	55.4	59.3	129.2	222.3	268.8	256.6	232.2	213.9	207.6
100°	31.6	45.9	60.2	63.8	141.3	244.6	296.3	297.1	298.9	300.3	292.8
102.5°	38.2	51.6	64.9	68.3	146.8	251.6	304.0	319.6	350.8	374.2	367.8
105°	49.4	60.7	72.0	74.9	151.0	252.4	303.1	338.0	407.9	460.3	456.9
107.5°	60.9	71.4	81.9	84.6	151.7	241.2	285.9	334.7	432.1	505.2	506.0
110°	68.6	78.2	87.7	90.1	150.6	231.3	271.6	326.1	435.0	516.6	520.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	76.3	85.4	94.4	96.7	150.6	222.6	258.5	314.2	425.7	509.3	514.7
115°	87.8	96.2	104.5	106.6	152.0	212.5	242.8	296.6	403.9	484.4	492.1
117.5°	99.1	106.7	114.2	116.2	154.8	206.3	232.1	280.6	377.4	450.1	458.5
120°	105.7	112.9	120.0	121.8	157.2	204.3	227.8	272.1	360.6	427.0	435.3
122.5°	112.1	119.4	126.6	128.4	160.4	203.2	224.5	264.3	344.1	403.9	412.0
125°	122.1	128.7	135.3	136.9	164.9	202.3	220.9	254.8	322.6	373.3	380.8
127.5°	130.1	136.7	143.4	145.0	169.3	201.7	217.9	246.9	305.2	348.7	355.1
130°	134.4	141.6	148.7	150.5	172.6	202.0	216.7	242.6	294.4	333.2	339.0
132.5°	138.9	146.1	153.2	155.0	175.2	202.3	215.8	238.9	285.3	320.0	325.1
135°	145.5	152.0	158.5	160.1	178.1	202.1	214.0	233.5	272.3	301.3	305.8
137.5°	152.3	158.7	165.1	166.7	182.4	203.3	213.8	230.2	263.0	287.6	291.2
140°	157.8	163.8	169.7	171.2	185.1	203.5	212.7	226.9	255.3	276.5	279.9
142.5°	162.1	167.6	173.1	174.5	187.2	204.2	212.7	225.1	250.1	268.7	271.7
145°	168.7	173.5	178.3	179.5	190.1	204.2	211.3	221.4	241.8	257.1	259.3
147.5°	175.3	180.0	184.7	185.8	194.4	205.6	211.3	219.3	235.3	247.3	249.1
150°	179.6	183.8	188.1	189.2	196.6	206.4	211.3	218.1	231.5	241.7	243.2
152.5°	184.1	187.3	190.5	191.3	198.0	206.9	211.3	217.0	228.6	237.3	238.4
155°	190.7	193.1	195.5	196.1	201.1	207.9	211.3	215.9	225.0	231.9	232.7
157.5°	195.6	197.9	200.2	200.8	204.3	209.0	211.3	214.8	222.0	227.3	227.9
160°	198.9	200.8	202.5	203.0	205.7	209.5	211.3	214.3	220.5	225.0	225.3
162.5°	202.2	203.5	204.9	205.3	207.3	209.9	211.3	213.9	219.0	222.9	223.2
165°	205.8	207.0	208.2	208.5	209.5	210.7	211.3	213.1	216.8	219.6	219.9
167.5°	209.1	209.7	210.2	210.4	211.2	212.2	212.7	214.0	216.3	218.2	218.3
170°	211.3	211.8	212.4	212.5	212.6	212.7	212.7	214.0	216.3	218.2	218.2
172.5°	212.4	212.5	212.7	212.7	212.7	212.7	212.7	213.7	215.6	217.0	216.9
175°	214.0	214.0	214.0	214.0	213.6	213.0	212.7	213.3	214.5	215.5	215.5
177.5°	214.0	214.0	214.0	214.0	213.7	213.2	213.0	213.5	214.4	215.2	215.1
180°	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0



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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°	5.4	5.4
92.5°	21.8	17.5
95°	76.2	63.1
97.5°	182.6	157.5
100°	263.1	233.3
102.5°	342.2	316.7
105°	443.2	429.4
107.5°	509.3	512.6
110°	534.5	548.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	536.7	558.7
115°	522.5	553.0
117.5°	492.3	526.1
120°	468.1	500.8
122.5°	444.3	476.7
125°	410.5	440.3
127.5°	380.2	405.3
130°	362.2	385.5
132.5°	346.0	366.8
135°	323.7	341.7
137.5°	305.9	320.5
140°	293.6	307.4
142.5°	283.5	295.3
145°	268.3	277.2
147.5°	256.6	264.0
150°	249.2	255.3
152.5°	242.9	247.5
155°	235.7	238.7
157.5°	230.0	232.1
160°	226.6	227.8
162.5°	224.4	225.5
165°	221.1	222.4
167.5°	218.8	219.3
170°	218.2	218.2
172.5°	216.4	216.1
175°	215.5	215.5
177.5°	214.5	214.0
180°	214.0	214.0



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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	7.63	8.86	8.31	9.57	10.39	20.79	22.02	21.47	22.73	23.56
	3H	8.36	9.47	9.05	10.19	11.05	22.65	23.77	23.34	24.48	25.34
	4H	8.67	9.73	9.39	10.45	11.33	23.31	24.36	24.02	25.09	25.96
	6H	8.94	9.92	9.67	10.65	11.54	23.75	24.73	24.48	25.47	26.35
	8H	9.02	9.95	9.76	10.71	11.60	23.88	24.82	24.62	25.57	26.46
	12H	9.05	9.94	9.80	10.69	11.61	23.96	24.85	24.71	25.60	26.52
4H	2H	14.87	15.93	15.59	16.65	17.53	21.11	22.16	21.82	22.89	23.76
	3H	16.48	17.36	17.21	18.12	19.02	23.18	24.07	23.91	24.83	25.72
	4H	16.59	17.39	17.33	18.16	19.08	23.96	24.77	24.71	25.53	26.45
	6H	16.62	17.32	17.38	18.11	19.04	24.52	25.22	25.28	26.01	26.94
	8H	16.61	17.26	17.38	18.05	18.99	24.69	25.35	25.46	26.13	27.07
	12H	16.58	17.18	17.37	17.98	18.93	24.80	25.39	25.59	26.20	27.14
8H	4H	18.06	18.72	18.83	19.50	20.44	24.05	24.71	24.82	25.50	26.44
	6H	18.32	18.87	19.12	19.69	20.64	24.70	25.24	25.49	26.07	27.01
	8H	18.34	18.83	19.15	19.66	20.61	24.92	25.41	25.73	26.23	27.19
	12H	18.33	18.76	19.14	19.58	20.59	25.08	25.51	25.89	26.33	27.34
12H	4H	18.22	18.82	19.01	19.62	20.57	24.03	24.62	24.82	25.43	26.37
	6H	18.58	19.07	19.39	19.90	20.85	24.68	25.17	25.49	26.00	26.96
	8H	18.67	19.10	19.48	19.92	20.93	24.93	25.36	25.74	26.18	27.19