

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: P936864

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

**Test Information**

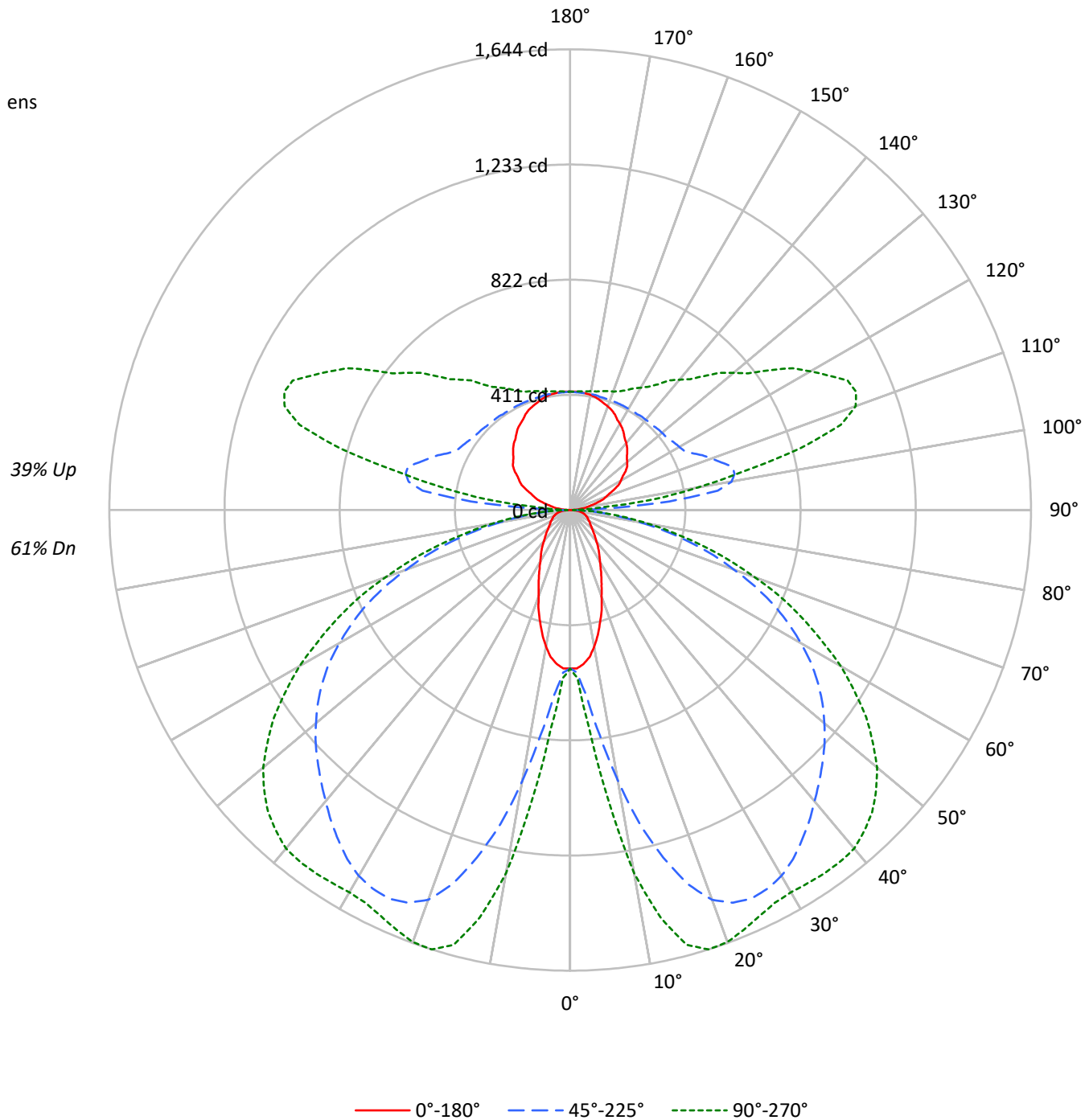
Test Method: LM-79-2019  
Report Number: P936864  
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-6-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7117.7 lumens  
Efficiency: N/A  
Efficacy: 105.0 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): 67.8  
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	
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

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

	0°	45°	90°
0°	3499	3499	3499
5°	3417	4043	4703
10°	3098	5892	7797
15°	2633	7696	9415
20°	2142	8916	9595
25°	1786	9328	9400
30°	1506	9385	9382
35°	1330	9226	9625
40°	1159	9021	9876
45°	1049	8870	9914
50°	962	8734	9750
55°	920	8535	9319
60°	940	8157	8635
65°	977	7584	7698
70°	1038	6609	6503
75°	1145	5383	5075
80°	1243	3729	3421
85°	1085	1975	1751

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9914 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	1.0
10°-20°	324.3	4.6
20°-30°	567.2	8.0
30°-40°	730.1	10.3
40°-50°	815.5	11.5
50°-60°	781.1	11.0
60°-70°	619.0	8.7
70°-80°	364.0	5.1
80°-90°	102.7	1.4
90°-100°	206.1	2.9
100°-110°	541.8	7.6
110°-120°	561.8	7.9
120°-130°	450.6	6.3
130°-140°	353.5	5.0
140°-150°	271.4	3.8
150°-160°	195.4	2.7
160°-170°	119.6	1.7
170°-180°	40.4	0.6
0°-30°	964.6	13.6
0°-40°	1694.8	23.8
0°-60°	3291.4	46.2
0°-90°	4377.2	61.5
90°-120°	1309.6	18.4
90°-150°	2385.1	33.5
90°-180°	2740.0	38.5
0°-180°	7117.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	551	591	666	753	780	51
15°	413	762	1284	1557	1606	115
25°	264	864	1530	1597	1599	121
35°	178	826	1440	1522	1582	111
45°	122	658	1273	1459	1524	94
55°	87	418	1080	1255	1290	80
65°	69	222	802	902	915	68
75°	51	136	440	484	486	53
85°	18	42	109	120	122	19
90°	3	8	22	11	11	4
95°	27	107	355	183	124	30
105°	98	148	599	909	848	103
115°	173	210	480	957	1092	171
125°	241	270	436	737	870	214
135°	287	316	423	595	675	222
145°	333	355	417	508	548	209
155°	377	387	417	458	472	173
165°	406	412	417	434	439	115
175°	423	423	420	426	426	40
180°	423	423	423	423	423	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6	565.6
2.5°	565.6	565.6	569.2	571.1	574.7	576.5	580.2	583.8	594.7	596.5	600.2
5°	551.1	558.3	582.0	591.1	616.5	651.1	665.6	689.3	738.4	753.0	762.1
7.5°	529.2	545.6	603.8	618.3	682.0	773.0	811.2	862.1	940.3	978.4	1009.4
10°	494.6	529.2	632.9	667.4	771.1	909.3	980.3	1051.2	1169.4	1222.2	1242.2
12.5°	456.5	512.9	663.9	711.1	860.2	1062.1	1147.6	1225.8	1360.4	1431.3	1442.2
15°	412.9	489.2	693.0	762.1	954.8	1189.4	1284.0	1380.4	1505.8	1556.8	1569.5
17.5°	374.7	471.1	720.2	793.0	1027.5	1304.0	1400.4	1480.4	1582.3	1616.8	1625.9
20°	327.3	442.0	738.4	833.0	1104.0	1387.6	1480.4	1542.3	1611.4	1633.2	1636.8
22.5°	292.8	411.0	749.3	847.5	1154.8	1438.6	1516.8	1565.9	1613.2	1620.5	1622.3
25°	263.7	376.4	747.5	863.9	1198.5	1469.5	1529.5	1565.9	1593.2	1596.8	1596.8
27.5°	236.4	338.3	740.2	867.5	1231.3	1476.8	1524.0	1549.5	1562.3	1569.5	1569.5
30°	212.8	301.9	722.0	860.2	1245.8	1469.5	1507.7	1520.4	1533.2	1544.0	1549.5
32.5°	194.6	267.3	694.7	845.7	1247.6	1451.3	1478.6	1485.8	1504.0	1529.5	1538.6
35°	178.2	232.8	663.9	825.7	1236.7	1422.2	1440.4	1447.7	1484.0	1522.3	1534.9
37.5°	161.9	207.3	623.8	791.1	1220.4	1387.6	1400.4	1413.2	1469.5	1514.9	1529.5
40°	145.5	185.5	576.5	753.0	1194.8	1345.8	1356.7	1376.7	1451.3	1504.0	1518.6
42.5°	132.8	167.3	525.6	713.0	1162.2	1298.5	1314.9	1344.0	1429.5	1485.8	1502.3
45°	121.9	149.1	471.1	658.4	1120.3	1249.4	1273.1	1313.1	1404.0	1458.6	1473.2
47.5°	110.9	136.4	414.7	602.0	1074.8	1200.3	1231.3	1276.7	1369.5	1422.2	1434.9
50°	101.9	123.7	358.3	542.0	1025.7	1147.6	1184.0	1231.3	1325.8	1374.9	1391.3
52.5°	94.6	112.8	305.5	482.0	969.4	1093.1	1134.8	1184.0	1273.1	1320.4	1331.3
55°	87.3	103.7	260.1	418.3	911.2	1034.8	1080.3	1127.6	1214.8	1254.9	1262.2
57.5°	83.7	96.4	221.9	358.3	849.3	969.4	1020.3	1064.0	1145.7	1176.7	1184.0
60°	78.2	90.9	192.8	307.3	782.1	907.5	951.2	994.8	1064.0	1089.4	1094.8
62.5°	72.8	87.3	171.0	258.2	713.0	834.7	878.4	918.4	976.6	994.8	1002.1
65°	69.1	83.7	154.6	221.9	642.0	758.4	802.1	836.6	883.9	902.1	905.7
67.5°	65.4	80.0	141.9	191.0	571.1	682.0	714.7	747.5	783.9	802.1	803.9
70°	60.0	76.4	131.0	169.1	498.3	594.7	622.0	656.5	685.6	694.7	700.2
72.5°	56.3	70.9	123.7	152.8	423.8	511.1	536.5	556.5	582.0	591.1	591.1
75°	50.9	63.7	116.4	136.4	347.3	418.3	440.1	460.1	480.1	483.8	478.3
77.5°	45.4	56.3	100.0	114.6	271.0	331.0	349.2	360.1	376.4	380.1	381.9
80°	38.2	49.1	78.2	89.1	196.4	243.7	256.4	265.5	280.1	280.1	283.8
82.5°	29.1	38.2	56.3	63.7	132.8	167.3	178.2	183.7	192.8	192.8	192.8
85°	18.2	23.7	36.3	41.8	80.0	101.9	109.1	110.9	118.2	120.0	120.0
87.5°	9.1	12.8	23.7	25.4	41.8	52.8	52.8	56.3	56.3	54.6	52.8
90°	2.8	5.1	7.4	8.0	12.5	18.5	21.6	19.2	14.3	10.7	10.7
92.5°	11.4	30.7	49.9	54.8	77.0	106.6	121.4	106.4	76.4	53.9	51.8
95°	27.3	62.5	97.8	106.6	189.4	299.8	355.0	316.8	240.3	183.0	176.5
97.5°	47.1	78.3	109.4	117.2	255.2	439.2	531.2	507.0	458.7	422.4	410.0
100°	62.4	90.7	118.9	126.0	279.1	483.3	585.3	587.0	590.6	593.3	578.6
102.5°	75.4	101.9	128.2	134.8	290.1	497.1	600.6	631.4	693.0	739.1	726.5
105°	97.6	119.9	142.2	147.8	298.2	498.7	598.9	667.9	805.8	909.3	902.6
107.5°	120.3	141.1	161.9	167.1	299.7	476.5	564.8	661.0	853.5	997.8	999.5
110°	135.6	154.4	173.2	177.8	297.4	456.8	536.5	644.0	859.2	1020.6	1027.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	150.7	168.6	186.5	191.0	297.5	439.7	510.7	620.8	841.0	1006.1	1016.9
115°	173.4	189.9	206.4	210.5	300.3	419.9	479.8	585.9	797.9	957.0	972.0
117.5°	195.7	210.8	225.8	229.5	305.9	407.6	458.5	554.2	745.6	889.2	905.9
120°	208.8	222.9	237.0	240.6	310.4	403.4	449.9	537.4	712.3	843.5	859.7
122.5°	221.6	235.8	250.1	253.7	316.9	401.2	443.4	522.2	679.7	797.8	813.8
125°	241.2	254.1	267.1	270.4	325.7	399.5	436.4	503.3	637.1	737.4	752.1
127.5°	257.0	270.2	283.3	286.6	334.5	398.5	430.4	487.8	602.7	688.8	701.2
130°	265.6	279.7	293.8	297.3	340.9	399.0	428.1	479.2	581.5	658.3	669.7
132.5°	274.4	288.5	302.7	306.1	346.2	399.5	426.2	472.0	563.5	632.1	642.4
135°	287.4	300.3	313.1	316.3	351.8	399.1	422.8	461.1	537.8	595.2	604.1
137.5°	300.7	313.5	326.1	329.4	360.3	401.5	422.1	454.5	519.3	568.0	575.2
140°	311.8	323.6	335.2	338.2	365.5	402.0	420.2	448.2	504.2	546.1	552.9
142.5°	320.3	331.1	341.9	344.7	369.8	403.4	420.2	444.8	493.9	530.8	536.7
145°	333.4	342.9	352.3	354.7	375.6	403.4	417.4	437.5	477.7	507.9	512.3
147.5°	346.4	355.6	364.9	367.2	383.9	406.2	417.4	433.2	464.8	488.6	492.3
150°	355.0	363.3	371.6	373.7	388.3	407.6	417.4	430.8	457.5	477.5	480.4
152.5°	363.7	370.0	376.3	377.9	391.0	408.6	417.4	428.7	451.6	468.7	470.9
155°	376.8	381.5	386.1	387.3	397.3	410.7	417.4	426.5	444.6	458.2	459.7
157.5°	386.4	390.9	395.5	396.6	403.5	412.8	417.4	424.4	438.6	449.1	450.1
160°	393.0	396.4	399.9	400.8	406.4	413.7	417.4	423.4	435.5	444.6	445.2
162.5°	399.5	402.1	404.8	405.4	409.4	414.7	417.4	422.5	432.7	440.3	440.9
165°	406.5	408.9	411.3	412.0	413.8	416.2	417.4	421.0	428.3	433.8	434.4
167.5°	413.1	414.2	415.3	415.6	417.2	419.2	420.2	422.6	427.4	430.9	431.2
170°	417.4	418.5	419.7	419.9	420.0	420.1	420.2	422.6	427.4	430.9	430.9
172.5°	419.7	419.9	420.1	420.2	420.2	420.2	420.2	422.0	425.8	428.7	428.5
175°	422.8	422.8	422.8	422.8	422.0	420.8	420.2	421.4	423.8	425.5	425.5
177.5°	422.8	422.8	422.8	422.8	422.1	421.2	420.8	421.7	423.6	425.0	424.7
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	565.6	565.6
2.5°	603.8	600.2
5°	776.6	780.2
7.5°	1045.7	1044.0
10°	1300.4	1316.7
12.5°	1485.8	1489.5
15°	1598.6	1605.9
17.5°	1642.3	1644.1
20°	1644.1	1640.5
22.5°	1624.0	1620.5
25°	1600.5	1598.6
27.5°	1578.6	1580.5
30°	1569.5	1574.9
32.5°	1569.5	1578.6
35°	1573.2	1582.3
37.5°	1571.4	1582.3
40°	1564.0	1576.8
42.5°	1544.0	1553.2
45°	1513.2	1524.0
47.5°	1473.2	1480.4
50°	1422.2	1429.5
52.5°	1358.6	1360.4
55°	1282.2	1289.5
57.5°	1200.3	1202.2
60°	1109.4	1114.8
62.5°	1013.0	1013.0
65°	911.2	914.8
67.5°	805.6	814.7
70°	698.4	700.2
72.5°	592.9	592.9
75°	483.8	485.6
77.5°	380.1	380.1
80°	281.9	283.8
82.5°	194.6	198.2
85°	121.9	121.9
87.5°	56.3	50.9
90°	10.7	10.7
92.5°	43.1	34.6
95°	150.5	124.5
97.5°	360.7	311.3
100°	519.7	460.8
102.5°	676.1	625.6
105°	875.5	848.3
107.5°	1006.0	1012.6
110°	1055.8	1084.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1060.3	1103.6
115°	1032.1	1092.3
117.5°	972.6	1039.3
120°	924.5	989.4
122.5°	877.8	941.6
125°	811.0	869.9
127.5°	750.9	800.7
130°	715.6	761.5
132.5°	683.5	724.6
135°	639.5	675.0
137.5°	604.3	633.3
140°	580.0	607.1
142.5°	560.0	583.3
145°	530.0	547.6
147.5°	506.8	521.4
150°	492.3	504.2
152.5°	479.9	488.9
155°	465.6	471.5
157.5°	454.4	458.5
160°	447.6	449.9
162.5°	443.2	445.4
165°	436.8	439.2
167.5°	432.2	433.2
170°	430.9	430.9
172.5°	427.6	426.7
175°	425.5	425.5
177.5°	423.8	422.8
180°	422.8	422.8



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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	6.34	7.36	7.18	8.23	9.33	19.50	20.53	20.34	21.40	22.49
	3H	7.05	7.98	7.91	8.86	9.98	21.35	22.27	22.20	23.15	24.27
	4H	7.36	8.23	8.23	9.12	10.25	22.00	22.87	22.87	23.76	24.89
	6H	7.62	8.43	8.50	9.32	10.46	22.43	23.24	23.32	24.13	25.28
	8H	7.69	8.46	8.58	9.37	10.52	22.55	23.32	23.45	24.24	25.38
	12H	7.71	8.45	8.61	9.36	10.53	22.63	23.36	23.52	24.27	25.44
4H	2H	13.56	14.44	14.44	15.32	16.45	19.79	20.67	20.67	21.56	22.69
	3H	15.15	15.88	16.03	16.80	17.94	21.85	22.58	22.74	23.50	24.65
	4H	15.25	15.92	16.15	16.83	18.00	22.62	23.29	23.52	24.21	25.38
	6H	15.27	15.85	16.18	16.79	17.96	23.17	23.75	24.08	24.69	25.86
	8H	15.25	15.79	16.17	16.73	17.91	23.33	23.87	24.25	24.81	25.99
	12H	15.21	15.70	16.15	16.66	17.85	23.43	23.92	24.37	24.87	26.06
8H	4H	16.70	17.25	17.62	18.18	19.37	22.70	23.24	23.61	24.17	25.36
	6H	16.95	17.40	17.90	18.38	19.56	23.33	23.78	24.27	24.75	25.94
	8H	16.97	17.37	17.93	18.34	19.54	23.55	23.95	24.50	24.91	26.12
	12H	16.95	17.30	17.91	18.26	19.51	23.70	24.05	24.66	25.01	26.26
12H	4H	16.85	17.34	17.79	18.30	19.49	22.66	23.15	23.60	24.10	25.29
	6H	17.21	17.61	18.17	18.58	19.78	23.31	23.71	24.27	24.68	25.88
	8H	17.29	17.64	18.25	18.60	19.85	23.55	23.90	24.51	24.86	26.11