

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: P936811

Luminaire Tested: SQ4-FB-050U-100D-830-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936811
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-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

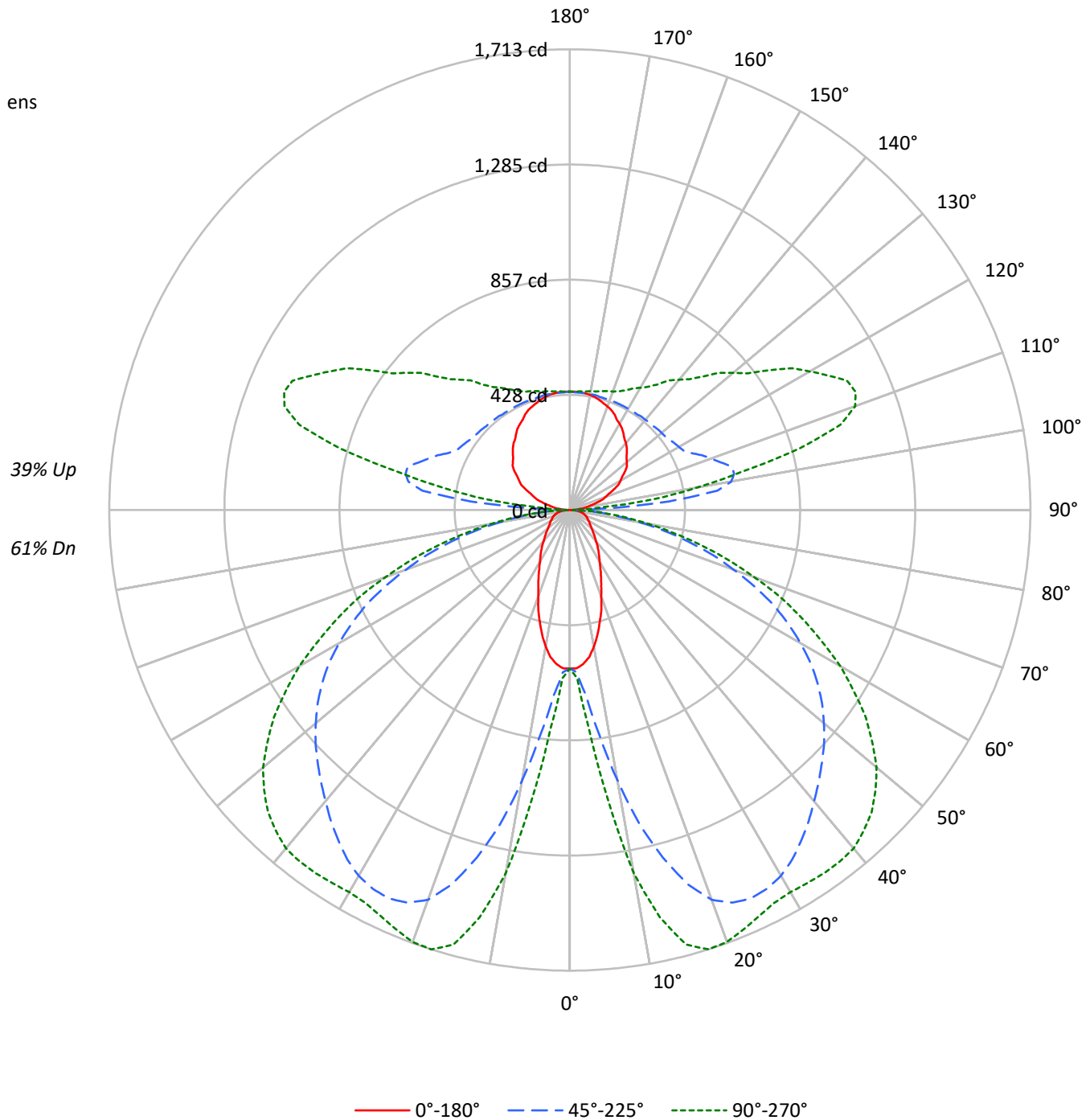
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7414.8 lumens
Efficiency: N/A
Efficacy: 109.4 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-Direct

Input Watts (W): 67.8
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	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°	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	1.0
10°-20°	337.8	4.6
20°-30°	590.9	8.0
30°-40°	760.6	10.3
40°-50°	849.6	11.5
50°-60°	813.7	11.0
60°-70°	644.9	8.7
70°-80°	379.2	5.1
80°-90°	107.0	1.4
90°-100°	214.7	2.9
100°-110°	564.4	7.6
110°-120°	585.2	7.9
120°-130°	469.4	6.3
130°-140°	368.3	5.0
140°-150°	282.7	3.8
150°-160°	203.6	2.7
160°-170°	124.6	1.7
170°-180°	42.1	0.6
0°-30°	1004.9	13.6
0°-40°	1765.5	23.8
0°-60°	3428.8	46.2
0°-90°	4559.9	61.5
90°-120°	1364.2	18.4
90°-150°	2484.6	33.5
90°-180°	2855.0	38.5
0°-180°	7414.8	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°	3	8	22	11	11	4
95°	28	111	370	191	130	32
105°	102	154	624	947	884	108
115°	181	219	500	997	1138	178
125°	251	282	455	768	906	223
135°	299	330	440	620	703	232
145°	347	370	435	529	570	218
155°	392	403	435	477	491	180
165°	424	429	435	452	458	120
175°	440	440	438	443	443	42
180°	440	440	440	440	440	



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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°	3.0	5.4	7.7	8.3	13.0	19.3	22.5	20.0	14.9	11.2	11.2
92.5°	11.9	31.9	52.0	57.1	80.2	111.1	126.5	110.8	79.5	56.1	53.9
95°	28.4	65.1	101.9	111.1	197.3	312.3	369.8	330.0	250.4	190.6	183.8
97.5°	49.0	81.5	114.0	122.1	265.9	457.5	553.3	528.2	477.8	440.0	427.1
100°	65.0	94.5	123.9	131.3	290.7	503.4	609.7	611.6	615.3	618.1	602.8
102.5°	78.6	106.1	133.6	140.4	302.2	517.9	625.7	657.7	721.9	770.0	756.9
105°	101.7	124.9	148.2	154.0	310.6	519.5	623.9	695.8	839.5	947.3	940.2
107.5°	125.3	147.0	168.6	174.1	312.2	496.4	588.4	688.6	889.1	1039.5	1041.2
110°	141.3	160.8	180.4	185.3	309.8	475.9	558.9	670.9	895.1	1063.2	1070.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	157.0	175.6	194.3	198.9	309.9	458.0	532.0	646.7	876.1	1048.1	1059.3
115°	180.6	197.8	215.0	219.3	312.8	437.5	499.8	610.3	831.2	996.9	1012.6
117.5°	203.9	219.6	235.2	239.1	318.6	424.7	477.6	577.3	776.8	926.3	943.7
120°	217.5	232.2	246.9	250.7	323.3	420.3	468.7	559.8	742.0	878.7	895.6
122.5°	230.9	245.7	260.5	264.2	330.1	418.0	461.9	544.0	708.1	831.1	847.8
125°	251.2	264.7	278.3	281.6	339.3	416.1	454.6	524.3	663.7	768.1	783.4
127.5°	267.8	281.4	295.1	298.6	348.5	415.1	448.4	508.2	627.8	717.6	730.5
130°	276.7	291.4	306.1	309.7	355.2	415.7	446.0	499.2	605.8	685.7	697.7
132.5°	285.8	300.6	315.3	318.9	360.6	416.1	444.0	491.7	587.0	658.5	669.2
135°	299.4	312.8	326.2	329.5	366.5	415.8	440.4	480.4	560.2	620.1	629.3
137.5°	313.3	326.6	339.8	343.1	375.3	418.2	439.8	473.5	541.0	591.7	599.2
140°	324.8	337.1	349.2	352.3	380.8	418.7	437.8	466.9	525.2	568.9	576.0
142.5°	333.6	344.9	356.2	359.1	385.3	420.3	437.8	463.4	514.5	553.0	559.1
145°	347.3	357.2	367.0	369.5	391.3	420.3	434.8	455.7	497.6	529.1	533.6
147.5°	360.9	370.4	380.1	382.5	399.9	423.1	434.8	451.2	484.2	509.0	512.8
150°	369.8	378.5	387.1	389.3	404.5	424.7	434.8	448.7	476.6	497.4	500.5
152.5°	378.9	385.5	392.1	393.7	407.4	425.6	434.8	446.6	470.4	488.2	490.5
155°	392.5	397.4	402.2	403.4	413.9	427.8	434.8	444.3	463.2	477.3	478.9
157.5°	402.6	407.3	412.0	413.2	420.4	430.0	434.8	442.2	456.9	467.9	468.9
160°	409.4	413.0	416.6	417.6	423.3	431.0	434.8	441.1	453.7	463.2	463.8
162.5°	416.1	418.9	421.7	422.4	426.5	432.0	434.8	440.1	450.8	458.7	459.3
165°	423.5	426.0	428.5	429.1	431.1	433.5	434.8	438.6	446.2	451.9	452.6
167.5°	430.3	431.4	432.7	433.0	434.6	436.7	437.8	440.2	445.2	448.9	449.2
170°	434.8	435.9	437.2	437.5	437.6	437.7	437.8	440.2	445.2	448.9	448.9
172.5°	437.2	437.5	437.7	437.8	437.8	437.8	437.8	439.7	443.6	446.5	446.4
175°	440.4	440.4	440.4	440.4	439.6	438.3	437.8	439.0	441.5	443.3	443.3
177.5°	440.4	440.4	440.4	440.4	439.8	438.8	438.3	439.3	441.3	442.7	442.4
180°	440.4	440.4	440.4	440.4	440.4	440.4	440.4	440.4	440.4	440.4	440.4



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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°	11.2	11.2
92.5°	44.9	36.0
95°	156.8	129.7
97.5°	375.7	324.3
100°	541.4	480.0
102.5°	704.3	651.7
105°	912.0	883.7
107.5°	1048.0	1054.9
110°	1099.9	1129.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1104.6	1149.7
115°	1075.2	1137.9
117.5°	1013.2	1082.7
120°	963.1	1030.7
122.5°	914.4	981.0
125°	844.8	906.2
127.5°	782.3	834.1
130°	745.5	793.3
132.5°	712.0	754.9
135°	666.2	703.1
137.5°	629.5	659.7
140°	604.2	632.5
142.5°	583.4	607.6
145°	552.1	570.4
147.5°	528.0	543.2
150°	512.9	525.2
152.5°	499.9	509.3
155°	485.1	491.2
157.5°	473.3	477.6
160°	466.2	468.7
162.5°	461.7	464.0
165°	455.1	457.5
167.5°	450.3	451.3
170°	448.9	448.9
172.5°	445.4	444.5
175°	443.3	443.3
177.5°	441.5	440.4
180°	440.4	440.4



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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	6.48	7.50	7.32	8.38	9.47	19.64	20.67	20.49	21.54	22.63
	3H	7.20	8.12	8.05	9.00	10.12	21.49	22.41	22.34	23.29	24.41
	4H	7.50	8.38	8.37	9.26	10.39	22.14	23.01	23.01	23.90	25.03
	6H	7.76	8.57	8.64	9.46	10.61	22.57	23.38	23.46	24.27	25.42
	8H	7.83	8.60	8.73	9.52	10.66	22.70	23.47	23.59	24.38	25.52
	12H	7.86	8.59	8.76	9.50	10.67	22.77	23.50	23.67	24.41	25.58
4H	2H	13.70	14.58	14.58	15.47	16.60	19.94	20.81	20.81	21.70	22.83
	3H	15.29	16.02	16.18	16.94	18.09	21.99	22.73	22.88	23.64	24.79
	4H	15.39	16.06	16.29	16.97	18.14	22.76	23.43	23.66	24.35	25.52
	6H	15.41	15.99	16.32	16.93	18.10	23.31	23.89	24.22	24.83	26.00
	8H	15.39	15.93	16.31	16.87	18.05	23.47	24.01	24.39	24.95	26.14
	12H	15.36	15.85	16.29	16.80	17.99	23.57	24.06	24.51	25.01	26.21
8H	4H	16.85	17.39	17.76	18.32	19.51	22.84	23.38	23.76	24.31	25.50
	6H	17.09	17.55	18.04	18.52	19.71	23.47	23.92	24.42	24.90	26.08
	8H	17.12	17.51	18.07	18.48	19.68	23.69	24.09	24.64	25.05	26.26
	12H	17.09	17.44	18.05	18.40	19.65	23.84	24.19	24.80	25.15	26.40
12H	4H	17.00	17.49	17.93	18.44	19.63	22.80	23.29	23.74	24.24	25.43
	6H	17.35	17.75	18.31	18.72	19.92	23.46	23.86	24.41	24.82	26.02
	8H	17.43	17.78	18.39	18.74	19.99	23.69	24.04	24.65	25.00	26.25