

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: P936819

Luminaire Tested: SQ4-FB-050U-100D-840-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936819
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-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

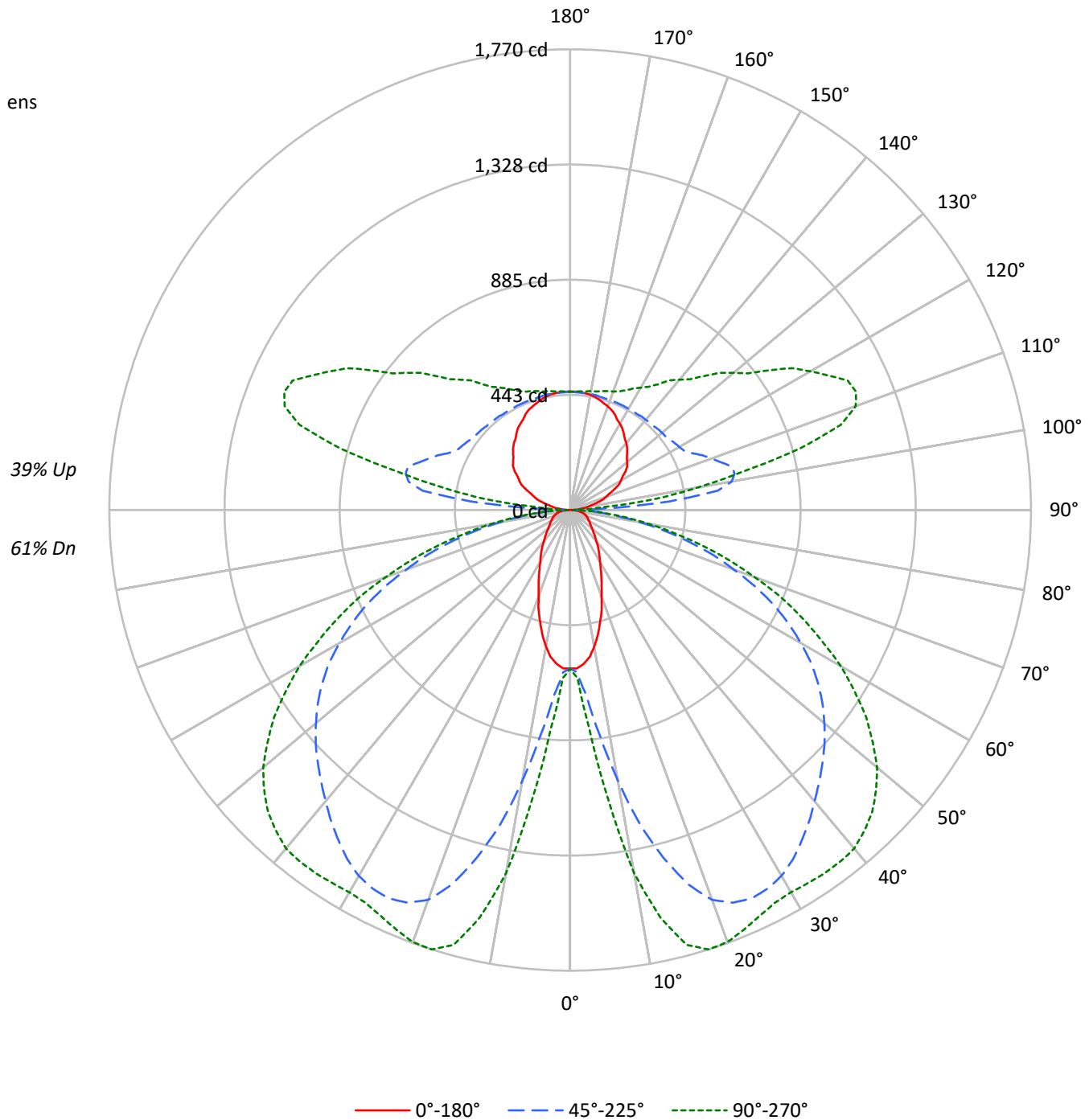
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7663.0 lumens
Efficiency: N/A
Efficacy: 113.0 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	50	30	10	0
RCR																					
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3767	3767	3767
5°	3679	4353	5063
10°	3335	6344	8394
15°	2834	8286	10136
20°	2306	9599	10330
25°	1924	10043	10120
30°	1621	10104	10101
35°	1432	9934	10363
40°	1247	9713	10632
45°	1129	9550	10674
50°	1035	9403	10497
55°	990	9190	10032
60°	1013	8782	9297
65°	1051	8164	8287
70°	1117	7116	7001
75°	1233	5796	5464
80°	1338	4014	3682
85°	1169	2127	1885

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	1.0
10°-20°	349.1	4.6
20°-30°	610.6	8.0
30°-40°	786.1	10.3
40°-50°	878.0	11.5
50°-60°	840.9	11.0
60°-70°	666.5	8.7
70°-80°	391.9	5.1
80°-90°	110.6	1.4
90°-100°	221.9	2.9
100°-110°	583.3	7.6
110°-120°	604.8	7.9
120°-130°	485.1	6.3
130°-140°	380.6	5.0
140°-150°	292.2	3.8
150°-160°	210.4	2.7
160°-170°	128.7	1.7
170°-180°	43.5	0.6
0°-30°	1038.5	13.6
0°-40°	1824.6	23.8
0°-60°	3543.6	46.2
0°-90°	4712.5	61.5
90°-120°	1409.9	18.4
90°-150°	2567.8	33.5
90°-180°	2950.0	38.5
0°-180°	7663.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	609	609	609	609	609	
5°	593	636	717	811	840	55
15°	444	820	1382	1676	1729	124
25°	284	930	1647	1719	1721	131
35°	192	889	1551	1639	1704	120
45°	131	709	1371	1570	1641	101
55°	94	450	1163	1351	1388	86
65°	74	239	864	971	985	74
75°	55	147	474	521	523	57
85°	20	45	118	129	131	21
90°	3	9	23	12	12	4
95°	29	115	382	197	134	33
105°	105	159	645	979	913	111
115°	187	227	516	1030	1176	184
125°	260	291	470	794	936	231
135°	309	341	455	641	727	239
145°	359	382	449	547	590	225
155°	406	417	449	493	508	186
165°	438	444	449	467	473	124
175°	455	455	452	458	458	43
180°	455	455	455	455	455	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9	608.9
2.5°	608.9	608.9	612.9	614.8	618.7	620.7	624.6	628.6	640.2	642.2	646.2
5°	593.3	601.1	626.6	636.4	663.7	701.0	716.6	742.1	794.9	810.7	820.4
7.5°	569.8	587.4	650.1	665.7	734.3	832.2	873.3	928.1	1012.3	1053.4	1086.7
10°	532.5	569.8	681.4	718.6	830.2	979.0	1055.4	1131.8	1259.0	1315.8	1337.4
12.5°	491.4	552.2	714.7	765.6	926.2	1143.5	1235.5	1319.7	1464.6	1541.0	1552.7
15°	444.5	526.7	746.0	820.4	1027.9	1280.5	1382.4	1486.1	1621.2	1676.0	1689.8
17.5°	403.4	507.1	775.4	853.7	1106.3	1403.9	1507.7	1593.8	1703.5	1740.7	1750.4
20°	352.4	475.8	794.9	896.8	1188.6	1494.0	1593.8	1660.4	1734.8	1758.3	1762.2
22.5°	315.3	442.5	806.7	912.4	1243.3	1548.8	1633.0	1685.8	1736.8	1744.6	1746.6
25°	284.0	405.3	804.7	930.1	1290.3	1582.1	1646.7	1685.8	1715.3	1719.1	1719.1
27.5°	254.5	364.2	796.9	934.0	1325.6	1589.9	1640.8	1668.2	1682.0	1689.8	1689.8
30°	229.1	325.1	777.4	926.2	1341.2	1582.1	1623.2	1636.9	1650.7	1662.3	1668.2
32.5°	209.6	287.8	747.9	910.4	1343.2	1562.5	1591.9	1599.7	1619.2	1646.7	1656.5
35°	191.9	250.7	714.7	888.9	1331.4	1531.2	1550.8	1558.6	1597.7	1638.9	1652.5
37.5°	174.3	223.2	671.6	851.8	1313.8	1494.0	1507.7	1521.4	1582.1	1631.0	1646.7
40°	156.6	199.7	620.7	810.7	1286.4	1448.9	1460.7	1482.2	1562.5	1619.2	1634.9
42.5°	143.0	180.1	565.8	767.6	1251.2	1398.0	1415.6	1446.9	1539.0	1599.7	1617.4
45°	131.2	160.6	507.1	708.8	1206.2	1345.2	1370.7	1413.7	1511.5	1570.3	1586.0
47.5°	119.4	146.8	446.5	648.1	1157.1	1292.3	1325.6	1374.5	1474.4	1531.2	1544.8
50°	109.7	133.2	385.7	583.5	1104.3	1235.5	1274.7	1325.6	1427.4	1480.2	1497.9
52.5°	101.9	121.4	328.9	518.9	1043.6	1176.8	1221.8	1274.7	1370.7	1421.5	1433.3
55°	94.0	111.6	280.0	450.3	981.0	1114.1	1163.1	1214.0	1307.9	1351.0	1358.9
57.5°	90.1	103.7	238.9	385.7	914.4	1043.6	1098.5	1145.5	1233.5	1266.8	1274.7
60°	84.2	97.9	207.6	330.9	842.0	977.0	1024.1	1071.0	1145.5	1172.9	1178.7
62.5°	78.3	94.0	184.1	278.0	767.6	898.7	945.7	988.8	1051.4	1071.0	1078.9
65°	74.4	90.1	166.5	238.9	691.2	816.5	863.5	900.7	951.6	971.2	975.1
67.5°	70.4	86.2	152.7	205.6	614.8	734.3	769.5	804.7	843.9	863.5	865.5
70°	64.6	82.2	141.0	182.1	536.5	640.2	669.7	706.8	738.1	747.9	753.8
72.5°	60.7	76.4	133.2	164.5	456.3	550.2	577.6	599.1	626.6	636.4	636.4
75°	54.8	68.6	125.3	146.8	374.0	450.3	473.8	495.4	516.9	520.9	514.9
77.5°	48.9	60.7	107.7	123.4	291.8	356.4	375.9	387.7	405.3	409.2	411.2
80°	41.1	52.9	84.2	95.9	211.4	262.4	276.0	285.8	301.5	301.5	305.5
82.5°	31.3	41.1	60.7	68.6	143.0	180.1	191.9	197.8	207.6	207.6	207.6
85°	19.6	25.5	39.1	45.1	86.2	109.7	117.5	119.4	127.3	129.2	129.2
87.5°	9.8	13.7	25.5	27.4	45.1	56.8	56.8	60.7	60.7	58.8	56.8
90°	3.1	5.5	8.0	8.6	13.4	20.0	23.2	20.6	15.4	11.6	11.6
92.5°	12.3	33.0	53.7	59.0	82.9	114.8	130.7	114.5	82.2	58.0	55.7
95°	29.3	67.3	105.3	114.8	203.9	322.8	382.2	341.1	258.8	197.0	190.0
97.5°	50.7	84.3	117.8	126.2	274.8	472.9	571.9	545.9	493.8	454.8	441.4
100°	67.2	97.6	128.0	135.7	300.5	520.3	630.1	632.0	635.9	638.7	622.9
102.5°	81.2	109.7	138.0	145.1	312.3	535.2	646.6	679.7	746.0	795.7	782.2
105°	105.1	129.1	153.1	159.2	321.0	536.9	644.8	719.1	867.6	979.0	971.7
107.5°	129.5	152.0	174.3	179.9	322.7	513.0	608.1	711.7	918.8	1074.3	1076.0
110°	146.0	166.2	186.4	191.5	320.2	491.8	577.6	693.4	925.1	1098.8	1106.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	162.2	181.5	200.8	205.6	320.3	473.4	549.8	668.4	905.4	1083.1	1094.8
115°	186.6	204.4	222.2	226.6	323.3	452.1	516.5	630.7	859.1	1030.3	1046.5
117.5°	210.7	226.9	243.0	247.1	329.3	438.9	493.6	596.7	802.8	957.3	975.3
120°	224.8	240.0	255.2	259.1	334.1	434.3	484.4	578.6	766.9	908.1	925.6
122.5°	238.6	253.9	269.2	273.1	341.2	432.0	477.4	562.2	731.8	859.0	876.2
125°	259.6	273.6	287.6	291.1	350.6	430.1	469.8	541.8	685.9	793.9	809.7
127.5°	276.7	290.9	305.0	308.6	360.1	429.0	463.4	525.2	648.8	741.6	754.9
130°	285.9	301.1	316.4	320.1	367.0	429.6	460.9	515.9	626.1	708.7	721.0
132.5°	295.4	310.6	325.8	329.6	372.7	430.1	458.8	508.1	606.6	680.5	691.6
135°	309.4	323.3	337.1	340.6	378.8	429.7	455.2	496.5	579.0	640.8	650.4
137.5°	323.8	337.5	351.1	354.6	387.9	432.2	454.5	489.4	559.1	611.5	619.3
140°	335.7	348.4	360.9	364.1	393.5	432.7	452.4	482.5	542.8	588.0	595.3
142.5°	344.8	356.5	368.1	371.1	398.2	434.3	452.4	478.9	531.7	571.5	577.8
145°	358.9	369.1	379.3	381.9	404.4	434.3	449.3	471.0	514.3	546.8	551.5
147.5°	373.0	382.8	392.8	395.3	413.3	437.3	449.3	466.3	500.4	526.0	530.0
150°	382.2	391.1	400.0	402.3	418.0	438.9	449.3	463.8	492.5	514.1	517.2
152.5°	391.5	398.4	405.2	406.9	421.0	439.9	449.3	461.6	486.2	504.6	506.9
155°	405.7	410.7	415.7	416.9	427.7	442.1	449.3	459.1	478.7	493.3	494.9
157.5°	416.0	420.9	425.8	427.0	434.4	444.4	449.3	457.0	472.2	483.5	484.6
160°	423.1	426.8	430.6	431.6	437.5	445.4	449.3	455.9	468.9	478.7	479.3
162.5°	430.1	432.9	435.8	436.5	440.7	446.5	449.3	454.9	465.8	474.0	474.6
165°	437.7	440.3	442.8	443.5	445.5	448.1	449.3	453.3	461.1	467.0	467.7
167.5°	444.7	445.9	447.2	447.5	449.1	451.3	452.4	455.0	460.1	464.0	464.3
170°	449.3	450.5	451.8	452.1	452.2	452.3	452.4	455.0	460.1	464.0	464.0
172.5°	451.8	452.1	452.3	452.4	452.4	452.4	452.4	454.4	458.4	461.5	461.3
175°	455.2	455.2	455.2	455.2	454.3	453.0	452.4	453.7	456.3	458.1	458.1
177.5°	455.2	455.2	455.2	455.2	454.5	453.5	453.0	454.0	456.1	457.5	457.2
180°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	608.9	608.9
2.5°	650.1	646.2
5°	836.0	840.0
7.5°	1125.8	1123.9
10°	1400.0	1417.6
12.5°	1599.7	1603.6
15°	1721.1	1728.9
17.5°	1768.1	1770.0
20°	1770.0	1766.1
22.5°	1748.5	1744.6
25°	1723.1	1721.1
27.5°	1699.6	1701.5
30°	1689.8	1695.6
32.5°	1689.8	1699.6
35°	1693.7	1703.5
37.5°	1691.8	1703.5
40°	1683.8	1697.6
42.5°	1662.3	1672.2
45°	1629.1	1640.8
47.5°	1586.0	1593.8
50°	1531.2	1539.0
52.5°	1462.6	1464.6
55°	1380.4	1388.2
57.5°	1292.3	1294.3
60°	1194.4	1200.2
62.5°	1090.7	1090.7
65°	981.0	984.8
67.5°	867.4	877.1
70°	751.9	753.8
72.5°	638.3	638.3
75°	520.9	522.8
77.5°	409.2	409.2
80°	303.5	305.5
82.5°	209.6	213.4
85°	131.2	131.2
87.5°	60.7	54.8
90°	11.6	11.6
92.5°	46.4	37.2
95°	162.0	134.1
97.5°	388.3	335.1
100°	559.5	496.1
102.5°	727.9	673.5
105°	942.6	913.3
107.5°	1083.0	1090.2
110°	1136.7	1167.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1141.5	1188.2
115°	1111.2	1176.0
117.5°	1047.1	1118.9
120°	995.3	1065.2
122.5°	945.0	1013.8
125°	873.1	936.5
127.5°	808.5	862.0
130°	770.4	819.8
132.5°	735.9	780.1
135°	688.5	726.7
137.5°	650.6	681.8
140°	624.4	653.7
142.5°	602.9	628.0
145°	570.6	589.5
147.5°	545.7	561.4
150°	530.1	542.8
152.5°	516.6	526.3
155°	501.3	507.6
157.5°	489.2	493.6
160°	481.8	484.4
162.5°	477.1	479.6
165°	470.3	472.9
167.5°	465.3	466.4
170°	464.0	464.0
172.5°	460.3	459.4
175°	458.1	458.1
177.5°	456.3	455.2
180°	455.2	455.2



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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	6.59	7.62	7.43	8.49	9.58	19.76	20.78	20.60	21.65	22.75
	3H	7.31	8.23	8.16	9.11	10.23	21.60	22.53	22.46	23.41	24.53
	4H	7.62	8.49	8.49	9.38	10.51	22.25	23.13	23.12	24.01	25.14
	6H	7.88	8.68	8.76	9.58	10.72	22.69	23.50	23.57	24.39	25.53
	8H	7.95	8.72	8.84	9.63	10.77	22.81	23.58	23.70	24.49	25.64
	12H	7.97	8.71	8.87	9.61	10.78	22.88	23.62	23.78	24.52	25.69
4H	2H	13.82	14.69	14.69	15.58	16.71	20.05	20.93	20.93	21.81	22.94
	3H	15.40	16.13	16.29	17.05	18.20	22.11	22.84	23.00	23.76	24.90
	4H	15.50	16.17	16.40	17.09	18.26	22.88	23.55	23.78	24.46	25.63
	6H	15.52	16.10	16.44	17.04	18.22	23.42	24.00	24.34	24.94	26.11
	8H	15.51	16.05	16.42	16.98	18.17	23.59	24.13	24.50	25.06	26.25
	12H	15.47	15.96	16.41	16.91	18.11	23.69	24.18	24.62	25.13	26.32
8H	4H	16.96	17.50	17.88	18.44	19.62	22.95	23.49	23.87	24.43	25.62
	6H	17.21	17.66	18.15	18.63	19.82	23.59	24.04	24.53	25.01	26.20
	8H	17.23	17.63	18.18	18.59	19.80	23.80	24.20	24.76	25.17	26.37
	12H	17.21	17.56	18.16	18.52	19.77	23.95	24.31	24.91	25.26	26.52
12H	4H	17.11	17.60	18.05	18.55	19.74	22.91	23.40	23.85	24.36	25.55
	6H	17.47	17.87	18.42	18.83	20.04	23.57	23.97	24.52	24.94	26.14
	8H	17.55	17.90	18.51	18.86	20.11	23.81	24.16	24.76	25.12	26.37