

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: P936417

Luminaire Tested: SQ4-FB-025U-100D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936417
REPORT IS A COMBINATION OF REPORTS P933431 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-025U-100D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

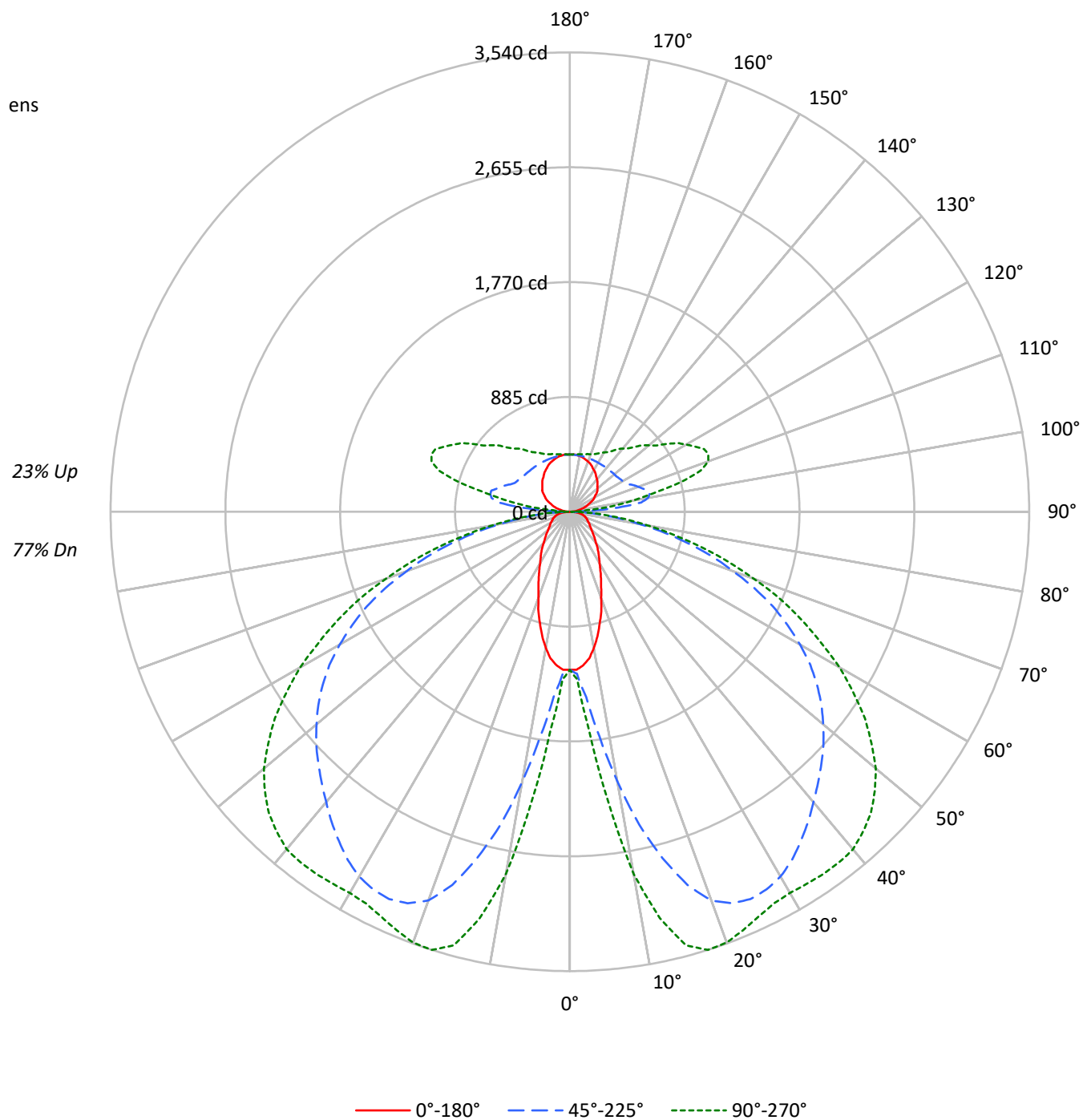
Lumens per Lamp: N/A
Luminaire Lumens: 12290.7 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 116.4
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	19
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3767	3767	3767
5°	3682	4355	5063
10°	3341	6350	8394
15°	2840	8298	10136
20°	2313	9618	10330
25°	1930	10067	10120
30°	1628	10134	10101
35°	1440	9968	10362
40°	1256	9752	10632
45°	1138	9595	10674
50°	1045	9454	10497
55°	1002	9246	10032
60°	1027	8844	9297
65°	1070	8231	8288
70°	1142	7183	7002
75°	1271	5862	5464
80°	1398	4071	3682
85°	1267	2163	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°	157.5	1.3
10°-20°	698.2	5.7
20°-30°	1221.3	9.9
30°-40°	1572.2	12.8
40°-50°	1756.0	14.3
50°-60°	1681.9	13.7
60°-70°	1332.9	10.8
70°-80°	783.8	6.4
80°-90°	219.4	1.8
90°-100°	215.6	1.8
100°-110°	566.9	4.6
110°-120°	587.8	4.8
120°-130°	471.5	3.8
130°-140°	369.9	3.0
140°-150°	283.9	2.3
150°-160°	204.5	1.7
160°-170°	125.1	1.0
170°-180°	42.3	0.3
0°-30°	2077.0	16.9
0°-40°	3649.2	29.7
0°-60°	7087.1	57.7
0°-90°	9423.3	76.7
90°-120°	1370.3	11.1
90°-150°	2495.6	20.3
90°-180°	2867.0	23.3
0°-180°	12290.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1187	1273	1433	1621	1680	110
15°	889	1641	2765	3352	3458	247
25°	568	1860	3293	3438	3442	262
35°	384	1778	3102	3278	3407	240
45°	262	1418	2741	3141	3282	203
55°	188	901	2326	2702	2776	171
65°	149	478	1727	1942	1970	147
75°	110	294	948	1042	1046	115
85°	39	90	235	258	262	42
90°	3	8	22	11	11	5
95°	28	112	371	192	130	32
105°	102	155	627	951	888	108
115°	181	220	502	1001	1143	179
125°	252	283	457	772	910	224
135°	301	331	442	623	706	233
145°	349	371	437	531	573	219
155°	394	405	437	480	493	181
165°	425	431	437	454	460	120
175°	442	442	440	445	445	42
180°	442	442	442	442	442	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9
2.5°	1217.9	1217.9	1225.7	1229.7	1237.5	1241.4	1249.2	1257.0	1280.5	1284.5	1292.3
5°	1186.6	1202.2	1253.2	1272.7	1327.6	1402.0	1433.3	1484.2	1589.9	1621.2	1640.8
7.5°	1139.6	1174.8	1300.1	1331.4	1468.5	1664.3	1746.6	1856.2	2024.6	2106.8	2173.4
10°	1065.2	1139.6	1362.7	1437.1	1660.4	1958.0	2110.8	2263.5	2518.0	2631.5	2674.6
12.5°	983.0	1104.3	1429.3	1531.2	1852.3	2286.9	2471.0	2639.4	2929.2	3082.0	3105.4
15°	888.9	1053.4	1492.0	1640.8	2055.9	2561.1	2764.7	2972.3	3242.5	3352.1	3379.6
17.5°	806.7	1014.3	1550.8	1707.4	2212.5	2807.8	3015.4	3187.7	3406.9	3481.3	3501.0
20°	704.8	951.6	1589.9	1793.5	2377.0	2987.9	3187.7	3320.8	3469.6	3516.6	3524.4
22.5°	630.4	885.1	1613.4	1824.8	2486.7	3097.6	3265.9	3371.7	3473.5	3489.2	3493.1
25°	567.8	810.7	1609.5	1860.1	2580.7	3164.2	3293.4	3371.7	3430.4	3438.2	3438.2
27.5°	509.1	728.4	1593.8	1867.9	2651.2	3179.8	3281.6	3336.5	3363.8	3379.6	3379.6
30°	458.1	650.1	1554.6	1852.3	2682.5	3164.2	3246.4	3273.8	3301.2	3324.7	3336.5
32.5°	419.0	575.6	1495.9	1821.0	2686.4	3125.0	3183.7	3199.4	3238.6	3293.4	3313.0
35°	383.7	501.2	1429.3	1777.9	2662.9	3062.3	3101.5	3117.1	3195.5	3277.7	3305.2
37.5°	348.6	446.5	1343.2	1703.5	2627.7	2987.9	3015.4	3042.7	3164.2	3262.1	3293.4
40°	313.3	399.4	1241.4	1621.2	2572.9	2897.9	2921.3	2964.4	3125.0	3238.6	3269.9
42.5°	285.8	360.3	1131.8	1535.1	2502.3	2796.0	2831.3	2894.0	3078.0	3199.4	3234.6
45°	262.4	321.1	1014.3	1417.6	2412.3	2690.3	2741.2	2827.4	3023.2	3140.7	3172.0
47.5°	238.9	293.7	892.9	1296.3	2314.4	2584.6	2651.2	2749.0	2948.8	3062.3	3089.8
50°	219.3	266.3	771.4	1167.0	2208.7	2471.0	2549.3	2651.2	2854.8	2960.5	2995.8
52.5°	203.6	242.8	657.9	1037.8	2087.2	2353.5	2443.6	2549.3	2741.2	2843.1	2866.6
55°	188.0	223.2	560.0	900.7	1962.0	2228.2	2326.1	2427.9	2615.9	2702.1	2717.7
57.5°	180.1	207.6	477.8	771.4	1828.8	2087.2	2196.9	2290.9	2467.1	2533.6	2549.3
60°	168.4	195.8	415.1	661.8	1683.8	1954.1	2048.1	2142.1	2290.9	2345.7	2357.5
62.5°	156.6	188.0	368.1	556.0	1535.1	1797.5	1891.4	1977.6	2103.0	2142.1	2157.7
65°	148.8	180.1	332.9	477.8	1382.4	1633.0	1726.9	1801.4	1903.2	1942.3	1950.2
67.5°	141.0	172.3	305.5	411.2	1229.7	1468.5	1539.0	1609.5	1687.8	1726.9	1730.9
70°	129.2	164.5	282.0	364.2	1073.0	1280.5	1339.3	1413.7	1476.4	1495.9	1507.7
72.5°	121.4	152.7	266.3	328.9	912.4	1100.4	1155.3	1198.3	1253.2	1272.7	1272.7
75°	109.7	137.0	250.7	293.7	747.9	900.7	947.7	990.8	1033.8	1041.6	1029.9
77.5°	97.9	121.4	215.4	246.7	583.5	712.7	751.9	775.4	810.7	818.5	822.4
80°	82.2	105.7	168.4	191.9	423.0	524.7	552.2	571.8	603.1	603.1	610.9
82.5°	62.6	82.2	121.4	137.0	285.8	360.3	383.7	395.5	415.1	415.1	415.1
85°	39.1	50.9	78.3	90.1	172.3	219.3	234.9	238.9	254.5	258.5	258.5
87.5°	19.6	27.4	50.9	54.8	90.1	113.5	113.5	121.4	121.4	117.5	113.5
90°	3.0	5.3	7.7	8.3	13.0	19.4	22.5	20.1	15.0	11.3	11.3
92.5°	11.9	32.0	52.3	57.3	80.5	111.5	127.1	111.3	79.9	56.4	54.1
95°	28.5	65.4	102.4	111.6	198.2	313.7	371.4	331.4	251.4	191.5	184.7
97.5°	49.3	81.9	114.5	122.6	267.0	459.5	555.8	530.5	480.0	442.0	429.1
100°	65.3	94.8	124.4	131.8	292.1	505.7	612.5	614.3	618.0	620.8	605.3
102.5°	78.9	106.5	134.1	141.0	303.5	520.2	628.5	660.7	725.0	773.3	760.1
105°	102.2	125.5	148.8	154.6	312.0	521.8	626.7	698.8	843.2	951.4	944.3
107.5°	125.9	147.6	169.4	174.9	313.6	498.5	591.0	691.7	893.1	1044.1	1045.8
110°	141.9	161.5	181.2	186.1	311.2	478.0	561.4	673.9	899.0	1067.8	1075.2

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	157.7	176.4	195.1	199.8	311.3	460.0	534.4	649.6	879.9	1052.7	1064.1
115°	181.4	198.7	216.0	220.3	314.2	439.4	502.0	613.0	834.9	1001.3	1017.0
117.5°	204.8	220.5	236.2	240.2	320.0	426.5	479.8	580.0	780.2	930.4	947.9
120°	218.4	233.3	248.1	251.7	324.8	422.1	470.8	562.3	745.3	882.6	899.6
122.5°	231.9	246.8	261.6	265.4	331.6	419.8	464.0	546.4	711.2	834.8	851.5
125°	252.3	266.0	279.6	283.0	340.9	418.0	456.6	526.5	666.5	771.5	786.9
127.5°	268.9	282.7	296.4	299.9	350.0	416.9	450.3	510.4	630.6	720.7	733.8
130°	277.8	292.6	307.5	311.1	356.8	417.5	448.0	501.5	608.5	688.7	700.8
132.5°	287.1	301.8	316.7	320.3	362.2	418.0	445.9	493.8	589.6	661.5	672.2
135°	300.7	314.2	327.6	331.0	368.1	417.6	442.3	482.4	562.7	622.8	632.1
137.5°	314.7	328.0	341.3	344.6	377.0	420.2	441.7	475.6	543.4	594.3	601.9
140°	326.2	338.5	350.8	353.9	382.5	420.6	439.7	468.9	527.5	571.5	578.6
142.5°	335.1	346.5	357.9	360.7	387.0	422.1	439.7	465.3	516.8	555.5	561.6
145°	348.9	358.7	368.6	371.1	392.9	422.1	436.7	457.7	499.8	531.3	536.0
147.5°	362.5	372.1	381.8	384.1	401.6	425.0	436.7	453.3	486.4	511.2	515.0
150°	371.4	380.1	388.8	391.0	406.2	426.5	436.7	450.7	478.7	499.6	502.7
152.5°	380.6	387.2	393.7	395.4	409.1	427.5	436.7	448.7	472.6	490.4	492.8
155°	394.2	399.1	404.0	405.2	415.7	429.7	436.7	446.2	465.2	479.5	481.1
157.5°	404.3	409.0	413.9	415.1	422.3	431.9	436.7	444.1	458.8	469.9	471.0
160°	411.2	414.9	418.6	419.5	425.2	432.8	436.7	443.0	455.7	465.2	465.7
162.5°	418.0	420.8	423.6	424.2	428.4	433.9	436.7	442.0	452.7	460.7	461.3
165°	425.4	427.9	430.5	431.1	432.9	435.4	436.7	440.5	448.2	453.9	454.5
167.5°	432.2	433.4	434.6	434.9	436.5	438.6	439.7	442.1	447.2	450.9	451.2
170°	436.7	437.9	439.1	439.4	439.5	439.6	439.7	442.1	447.2	450.9	450.9
172.5°	439.1	439.4	439.6	439.7	439.7	439.7	439.7	441.6	445.6	448.6	448.4
175°	442.3	442.3	442.3	442.3	441.4	440.3	439.7	440.9	443.4	445.3	445.3
177.5°	442.3	442.3	442.3	442.3	441.6	440.7	440.3	441.2	443.2	444.7	444.4
180°	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1217.9	1217.9
2.5°	1300.1	1292.3
5°	1672.2	1680.0
7.5°	2251.8	2247.8
10°	2800.0	2835.2
12.5°	3199.4	3207.2
15°	3442.2	3457.9
17.5°	3536.2	3540.1
20°	3540.1	3532.3
22.5°	3497.0	3489.2
25°	3446.1	3442.2
27.5°	3399.1	3403.1
30°	3379.6	3391.3
32.5°	3379.6	3399.1
35°	3387.4	3406.9
37.5°	3383.4	3406.9
40°	3367.8	3395.2
42.5°	3324.7	3344.3
45°	3258.1	3281.6
47.5°	3172.0	3187.7
50°	3062.3	3078.0
52.5°	2925.3	2929.2
55°	2760.8	2776.5
57.5°	2584.6	2588.5
60°	2388.8	2400.5
62.5°	2181.2	2181.2
65°	1962.0	1969.8
67.5°	1734.8	1754.4
70°	1503.7	1507.7
72.5°	1276.6	1276.6
75°	1041.6	1045.6
77.5°	818.5	818.5
80°	607.0	610.9
82.5°	419.0	426.8
85°	262.4	262.4
87.5°	121.4	109.7
90°	11.3	11.3
92.5°	45.3	36.3
95°	157.5	130.3
97.5°	377.4	325.6
100°	543.8	482.1
102.5°	707.3	654.6
105°	916.0	887.6
107.5°	1052.7	1059.5
110°	1104.8	1134.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1109.4	1154.8
115°	1080.0	1142.9
117.5°	1017.6	1087.4
120°	967.4	1035.1
122.5°	918.4	985.3
125°	848.5	910.1
127.5°	785.8	837.7
130°	748.8	796.8
132.5°	715.2	758.2
135°	669.2	706.2
137.5°	632.2	662.7
140°	606.9	635.3
142.5°	586.0	610.4
145°	554.5	572.9
147.5°	530.4	545.7
150°	515.1	527.5
152.5°	502.1	511.5
155°	487.2	493.4
157.5°	475.4	479.8
160°	468.3	470.8
162.5°	463.7	466.0
165°	457.0	459.5
167.5°	452.2	453.3
170°	450.9	450.9
172.5°	447.4	446.5
175°	445.3	445.3
177.5°	443.4	442.3
180°	442.3	442.3

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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	7.75	8.98	8.43	9.69	10.52	20.94	22.17	21.62	22.88	23.71
	3H	8.48	9.60	9.17	10.31	11.17	22.81	23.93	23.51	24.64	25.50
	4H	8.80	9.85	9.51	10.58	11.45	23.48	24.53	24.19	25.26	26.13
	6H	9.07	10.04	9.79	10.78	11.66	23.93	24.91	24.66	25.64	26.53
	8H	9.14	10.08	9.88	10.83	11.72	24.07	25.00	24.80	25.75	26.64
	12H	9.17	10.06	9.92	10.81	11.73	24.15	25.04	24.89	25.79	26.71
4H	2H	15.02	16.07	15.73	16.79	17.67	21.26	22.31	21.97	23.04	23.91
	3H	16.62	17.50	17.34	18.26	19.15	23.34	24.23	24.07	24.99	25.88
	4H	16.73	17.53	17.47	18.30	19.22	24.13	24.93	24.87	25.70	26.62
	6H	16.76	17.46	17.52	18.25	19.18	24.69	25.40	25.46	26.18	27.11
	8H	16.75	17.40	17.51	18.19	19.13	24.87	25.53	25.64	26.31	27.25
	12H	16.72	17.31	17.51	18.12	19.07	24.98	25.58	25.77	26.38	27.33
8H	4H	18.21	18.86	18.97	19.65	20.59	24.22	24.88	24.99	25.66	26.60
	6H	18.47	19.01	19.26	19.84	20.78	24.87	25.42	25.67	26.24	27.19
	8H	18.49	18.98	19.30	19.80	20.76	25.10	25.59	25.91	26.41	27.37
	12H	18.48	18.91	19.29	19.72	20.74	25.27	25.70	26.08	26.51	27.53
12H	4H	18.37	18.96	19.16	19.77	20.72	24.19	24.78	24.98	25.59	26.54
	6H	18.73	19.22	19.54	20.04	21.00	24.86	25.35	25.67	26.17	27.13
	8H	18.82	19.25	19.63	20.06	21.08	25.11	25.54	25.92	26.36	27.37