

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: P936804

Luminaire Tested: SQ4-FB-050U-075D-B40-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

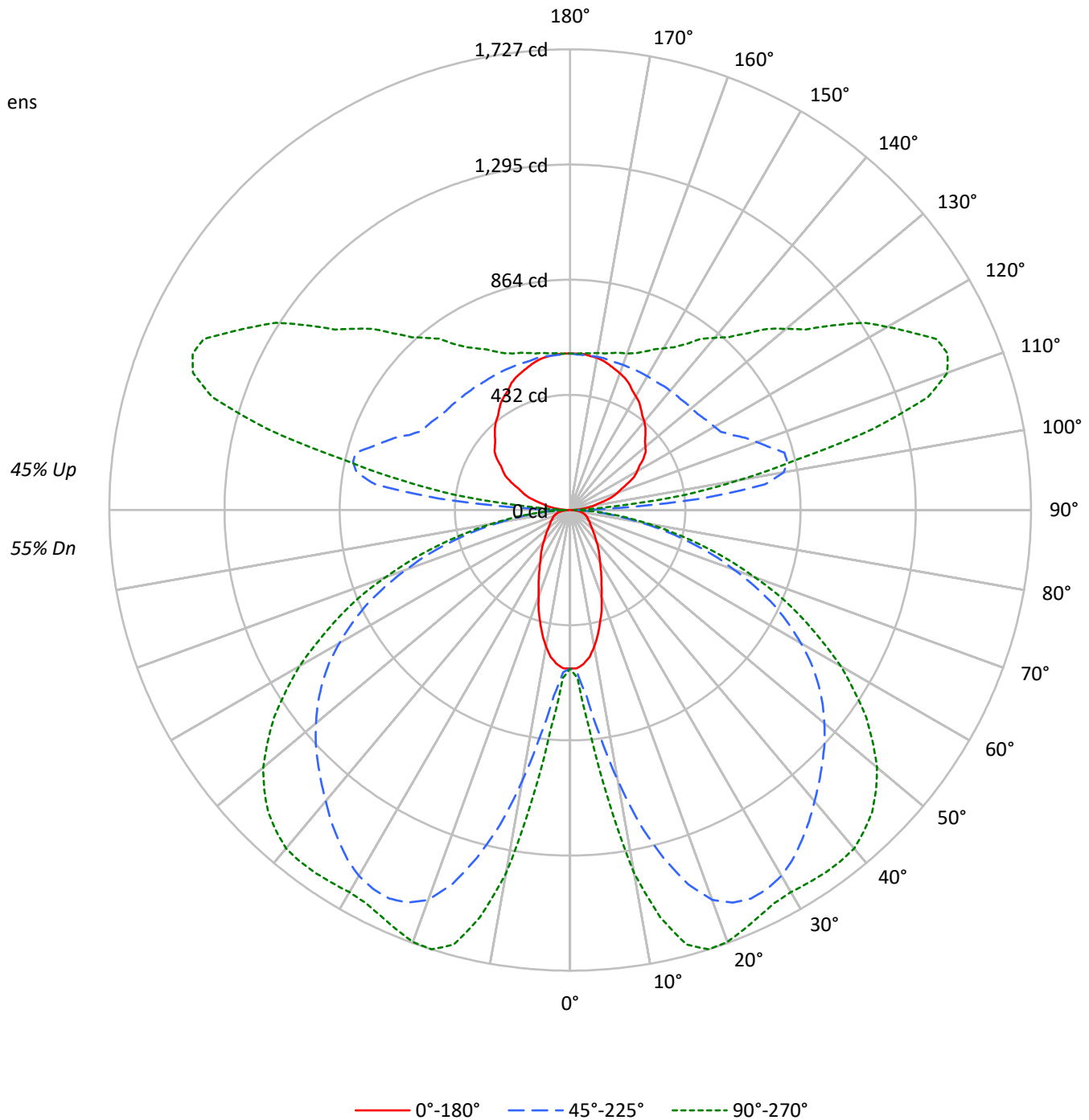
Test Method: LM-79-2019  
Report Number: P936804  
REPORT IS A COMBINATION OF REPORTS P933486 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-B40-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8400.2 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 72.8  
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				
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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	50	50	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	41	41	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	34	34	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	29	29	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	25	25	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	21	21	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	19	19	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	16	16	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	15	15	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	13	13	13	11

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

	0°	45°	90°
0°	2756	2756	2756
5°	2692	3186	3704
10°	2442	4643	6142
15°	2076	6067	7416
20°	1690	7030	7558
25°	1410	7357	7405
30°	1189	7403	7391
35°	1051	7280	7582
40°	916	7121	7779
45°	829	7004	7810
50°	761	6898	7681
55°	729	6744	7340
60°	746	6447	6802
65°	776	5997	6063
70°	826	5230	5123
75°	916	4264	3998
80°	1000	2957	2694
85°	890	1569	1379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7810 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.8	0.9
10°-20°	340.6	4.1
20°-30°	595.7	7.1
30°-40°	766.8	9.1
40°-50°	856.5	10.2
50°-60°	820.4	9.8
60°-70°	650.1	7.7
70°-80°	382.3	4.6
80°-90°	108.4	1.3
90°-100°	285.9	3.4
100°-110°	751.7	8.9
110°-120°	779.4	9.3
120°-130°	625.2	7.4
130°-140°	490.6	5.8
140°-150°	376.5	4.5
150°-160°	271.2	3.2
160°-170°	165.9	2.0
170°-180°	56.1	0.7
0°-30°	1013.1	12.1
0°-40°	1780.0	21.2
0°-60°	3456.9	41.2
0°-90°	4597.7	54.7
90°-120°	1817.1	21.6
90°-150°	3309.4	39.4
90°-180°	3802.0	45.3
0°-180°	8400.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	579	621	699	791	819	53
15°	434	800	1349	1635	1687	121
25°	277	907	1606	1677	1679	128
35°	187	867	1513	1599	1662	117
45°	128	691	1337	1532	1601	99
55°	92	439	1135	1318	1354	84
65°	73	233	842	947	961	72
75°	54	143	462	508	510	56
85°	19	44	115	126	128	20
90°	4	11	30	15	15	5
95°	38	148	492	254	173	42
105°	135	205	831	1262	1177	144
115°	241	292	666	1328	1516	238
125°	335	375	606	1023	1207	297
135°	399	439	587	826	937	309
145°	463	492	579	705	760	290
155°	523	537	579	636	654	240
165°	564	572	579	602	609	159
175°	587	587	583	590	590	56
180°	587	587	587	587	587	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
2.5°	594.0	594.0	597.8	599.7	603.6	605.5	609.3	613.1	624.6	626.5	630.3
5°	578.7	586.4	611.2	620.8	647.5	683.8	699.1	723.9	775.5	790.7	800.3
7.5°	555.8	573.0	634.1	649.4	716.2	811.8	851.9	905.3	987.5	1027.6	1060.0
10°	519.5	555.8	664.7	701.0	809.8	955.0	1029.5	1104.1	1228.2	1283.6	1304.6
12.5°	479.4	538.6	697.2	746.8	903.4	1115.5	1205.3	1287.4	1428.8	1503.3	1514.7
15°	433.6	513.8	727.7	800.3	1002.8	1249.2	1348.6	1449.8	1581.6	1635.1	1648.4
17.5°	393.5	494.7	756.4	832.8	1079.1	1369.6	1470.8	1554.8	1661.8	1698.1	1707.6
20°	343.8	464.1	775.5	874.8	1159.5	1457.4	1554.8	1619.8	1692.4	1715.3	1719.1
22.5°	307.5	431.7	786.9	890.1	1212.9	1510.9	1593.0	1644.6	1694.3	1701.9	1703.8
25°	277.0	395.4	785.0	907.2	1258.8	1543.4	1606.4	1644.6	1673.3	1677.1	1677.1
27.5°	248.3	355.3	777.4	911.1	1293.2	1551.0	1600.7	1627.4	1640.8	1648.4	1648.4
30°	223.5	317.1	758.3	903.4	1308.4	1543.4	1583.5	1596.9	1610.2	1621.7	1627.4
32.5°	204.4	280.8	729.6	888.2	1310.4	1524.3	1552.9	1560.6	1579.7	1606.4	1616.0
35°	187.2	244.5	697.2	867.1	1298.9	1493.7	1512.8	1520.5	1558.7	1598.8	1612.1
37.5°	170.0	217.7	655.1	830.8	1281.7	1457.4	1470.8	1484.2	1543.4	1591.1	1606.4
40°	152.8	194.8	605.5	790.7	1255.0	1413.5	1425.0	1446.0	1524.3	1579.7	1594.9
42.5°	139.4	175.7	552.0	748.7	1220.6	1363.8	1381.0	1411.6	1501.4	1560.6	1577.8
45°	128.0	156.6	494.7	691.4	1176.7	1312.3	1337.1	1379.1	1474.6	1531.9	1547.2
47.5°	116.5	143.2	435.5	632.2	1128.9	1260.7	1293.2	1340.9	1438.3	1493.7	1507.1
50°	107.0	129.9	376.3	569.2	1077.2	1205.3	1243.5	1293.2	1392.5	1444.1	1461.2
52.5°	99.3	118.4	320.9	506.2	1018.0	1148.0	1191.9	1243.5	1337.1	1386.8	1398.2
55°	91.7	108.9	273.1	439.3	956.9	1086.9	1134.6	1184.3	1276.0	1318.0	1325.6
57.5°	87.9	101.2	233.0	376.3	892.0	1018.0	1071.5	1117.4	1203.4	1235.9	1243.5
60°	82.1	95.5	202.5	322.8	821.3	953.1	998.9	1044.8	1117.4	1144.2	1149.9
62.5°	76.4	91.7	179.5	271.2	748.7	876.7	922.5	964.6	1025.7	1044.8	1052.4
65°	72.6	87.9	162.4	233.0	674.2	796.5	842.3	878.6	928.3	947.4	951.2
67.5°	68.8	84.0	149.0	200.5	599.7	716.2	750.6	785.0	823.2	842.3	844.2
70°	63.0	80.2	137.5	177.6	523.3	624.6	653.2	689.5	720.1	729.6	735.4
72.5°	59.2	74.5	129.9	160.4	445.0	536.7	563.4	584.5	611.2	620.8	620.8
75°	53.5	66.8	122.2	143.2	364.8	439.3	462.2	483.2	504.2	508.1	502.3
77.5°	47.8	59.2	105.0	120.3	284.6	347.6	366.7	378.2	395.4	399.2	401.1
80°	40.1	51.6	82.1	93.6	206.3	255.9	269.3	278.9	294.1	294.1	298.0
82.5°	30.6	40.1	59.2	66.8	139.4	175.7	187.2	192.9	202.5	202.5	202.5
85°	19.1	24.8	38.2	43.9	84.0	107.0	114.6	116.5	124.2	126.1	126.1
87.5°	9.5	13.4	24.8	26.7	43.9	55.4	55.4	59.2	59.2	57.3	55.4
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.5	20.0	15.0	15.0
92.5°	15.8	42.5	69.3	76.0	106.9	147.9	168.5	147.6	106.0	74.8	71.8
95°	37.8	86.8	135.8	148.0	262.8	415.9	492.5	439.5	333.5	253.9	245.0
97.5°	65.3	108.5	151.7	162.5	354.0	609.3	737.0	703.5	636.4	586.2	569.0
100°	86.6	125.8	164.9	174.8	387.3	670.5	812.1	814.6	819.5	823.1	802.7
102.5°	104.8	141.3	177.8	187.0	402.4	689.8	833.4	876.1	961.5	1025.5	1008.0
105°	135.4	166.4	197.4	205.1	413.8	692.0	831.0	926.7	1118.2	1261.7	1252.3
107.5°	166.9	195.8	224.6	231.9	415.8	661.1	783.8	917.3	1184.3	1384.6	1386.9
110°	188.1	214.2	240.4	246.9	412.8	633.8	744.4	893.7	1192.1	1416.0	1425.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.0	233.9	258.7	264.9	412.8	610.1	708.6	861.3	1166.8	1395.9	1411.0
115°	240.6	263.5	286.4	292.1	416.7	582.7	665.7	812.9	1107.1	1327.8	1348.7
117.5°	271.6	292.4	313.2	318.5	424.4	565.6	636.1	769.0	1034.6	1233.8	1256.9
120°	289.7	309.3	329.0	333.9	430.7	559.8	624.4	745.7	988.3	1170.4	1192.8
122.5°	307.4	327.2	347.0	351.9	439.7	556.8	615.3	724.6	943.2	1107.0	1129.2
125°	334.6	352.6	370.6	375.1	451.9	554.3	605.5	698.3	883.9	1023.2	1043.6
127.5°	356.7	374.8	393.0	397.6	464.1	552.8	597.2	676.9	836.3	955.9	973.0
130°	368.4	388.0	407.7	412.6	473.0	553.7	594.0	665.0	806.9	913.3	929.2
132.5°	380.7	400.2	419.9	424.8	480.3	554.3	591.3	654.8	781.9	877.1	891.3
135°	398.8	416.7	434.4	438.9	488.1	553.7	586.6	639.8	746.1	825.9	838.2
137.5°	417.3	435.0	452.7	457.1	499.9	557.1	585.8	630.8	720.7	788.2	798.2
140°	432.6	448.9	465.2	469.3	507.2	557.7	583.0	621.9	699.5	757.8	767.2
142.5°	444.5	459.5	474.5	478.3	513.2	559.7	583.0	617.1	685.4	736.6	744.7
145°	462.6	475.7	488.9	492.1	521.1	559.8	579.1	607.0	662.9	704.7	710.8
147.5°	480.7	493.4	506.2	509.4	532.6	563.6	579.1	601.1	644.9	677.9	682.9
150°	492.5	504.0	515.6	518.5	538.7	565.6	579.1	597.6	634.8	662.6	666.7
152.5°	504.7	513.5	522.2	524.4	542.6	567.0	579.1	595.0	626.6	650.4	653.5
155°	522.8	529.3	535.8	537.4	551.3	569.8	579.1	591.7	616.8	635.7	637.8
157.5°	536.1	542.4	548.7	550.4	559.9	572.7	579.1	588.9	608.4	623.1	624.6
160°	545.2	550.2	555.0	556.3	563.9	574.1	579.1	587.5	604.2	616.8	617.7
162.5°	554.3	558.0	561.6	562.6	568.1	575.5	579.1	586.2	600.4	611.0	611.8
165°	564.1	567.5	570.7	571.6	574.1	577.4	579.1	584.2	594.3	601.9	602.8
167.5°	573.2	574.7	576.3	576.7	578.8	581.6	583.0	586.4	593.1	598.0	598.4
170°	579.1	580.6	582.3	582.6	582.7	582.9	583.0	586.4	593.1	598.0	598.0
172.5°	582.3	582.6	582.9	583.0	583.0	583.0	583.0	585.7	591.0	594.9	594.6
175°	586.6	586.6	586.6	586.6	585.4	583.8	583.0	584.7	588.0	590.5	590.5
177.5°	586.6	586.6	586.6	586.6	585.6	584.4	583.8	585.1	587.7	589.7	589.3
180°	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	594.0	594.0
2.5°	634.1	630.3
5°	815.6	819.4
7.5°	1098.3	1096.4
10°	1365.7	1382.9
12.5°	1560.6	1564.4
15°	1679.0	1686.6
17.5°	1724.8	1726.7
20°	1726.7	1722.9
22.5°	1705.7	1701.9
25°	1680.9	1679.0
27.5°	1658.0	1659.9
30°	1648.4	1654.2
32.5°	1648.4	1658.0
35°	1652.2	1661.8
37.5°	1650.3	1661.8
40°	1642.7	1656.1
42.5°	1621.7	1631.2
45°	1589.2	1600.7
47.5°	1547.2	1554.8
50°	1493.7	1501.4
52.5°	1426.9	1428.8
55°	1346.6	1354.3
57.5°	1260.7	1262.6
60°	1165.2	1170.9
62.5°	1063.9	1063.9
65°	956.9	960.7
67.5°	846.1	855.7
70°	733.4	735.4
72.5°	622.7	622.7
75°	508.1	510.0
77.5°	399.2	399.2
80°	296.0	298.0
82.5°	204.4	208.2
85°	128.0	128.0
87.5°	59.2	53.5
90°	15.0	15.0
92.5°	59.9	48.0
95°	208.9	172.9
97.5°	500.4	431.9
100°	721.0	639.3
102.5°	938.0	868.0
105°	1214.7	1177.0
107.5°	1395.9	1405.0
110°	1465.0	1504.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1471.2	1531.3
115°	1432.1	1515.6
117.5°	1349.5	1442.0
120°	1282.8	1372.7
122.5°	1217.9	1306.6
125°	1125.3	1207.0
127.5°	1042.0	1111.0
130°	992.9	1056.6
132.5°	948.4	1005.4
135°	887.4	936.6
137.5°	838.5	878.7
140°	804.8	842.4
142.5°	777.0	809.4
145°	735.4	759.8
147.5°	703.3	723.6
150°	683.1	699.5
152.5°	665.9	678.3
155°	646.1	654.3
157.5°	630.4	636.1
160°	621.0	624.4
162.5°	614.9	618.1
165°	606.0	609.4
167.5°	599.7	601.2
170°	598.0	598.0
172.5°	593.3	592.1
175°	590.5	590.5
177.5°	588.0	586.6
180°	586.6	586.6



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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	4.95	5.90	5.85	6.83	8.03	18.13	19.08	19.03	20.01	21.21
	3H	5.66	6.51	6.58	7.45	8.68	19.97	20.83	20.89	21.77	22.99
	4H	5.96	6.77	6.89	7.72	8.95	20.62	21.43	21.56	22.38	23.61
	6H	6.22	6.96	7.16	7.91	9.16	21.06	21.80	22.00	22.76	24.00
	8H	6.29	7.00	7.24	7.97	9.21	21.18	21.89	22.13	22.86	24.11
	12H	6.31	6.99	7.27	7.95	9.22	21.25	21.93	22.21	22.89	24.16
4H	2H	12.17	12.98	13.11	13.93	15.16	18.41	19.22	19.35	20.17	21.40
	3H	13.75	14.43	14.70	15.40	16.65	20.47	21.14	21.42	22.12	23.37
	4H	13.85	14.47	14.81	15.44	16.71	21.24	21.86	22.20	22.83	24.10
	6H	13.86	14.40	14.84	15.39	16.66	21.78	22.32	22.75	23.31	24.58
	8H	13.84	14.34	14.82	15.33	16.62	21.95	22.45	22.92	23.43	24.72
	12H	13.80	14.26	14.80	15.26	16.55	22.04	22.50	23.04	23.50	24.79
8H	4H	15.30	15.80	16.28	16.79	18.07	21.30	21.80	22.28	22.79	24.08
	6H	15.55	15.96	16.55	16.99	18.27	21.94	22.35	22.94	23.38	24.66
	8H	15.57	15.93	16.58	16.95	18.25	22.16	22.53	23.17	23.54	24.84
	12H	15.54	15.86	16.55	16.87	18.22	22.31	22.63	23.32	23.64	24.99
12H	4H	15.45	15.90	16.44	16.91	18.20	21.26	21.71	22.26	22.72	24.01
	6H	15.81	16.17	16.82	17.19	18.49	21.92	22.29	22.93	23.31	24.61
	8H	15.88	16.20	16.89	17.21	18.56	22.16	22.48	23.17	23.49	24.84