

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: P936903

Luminaire Tested: SQ4-FB-050U-100D-B40-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

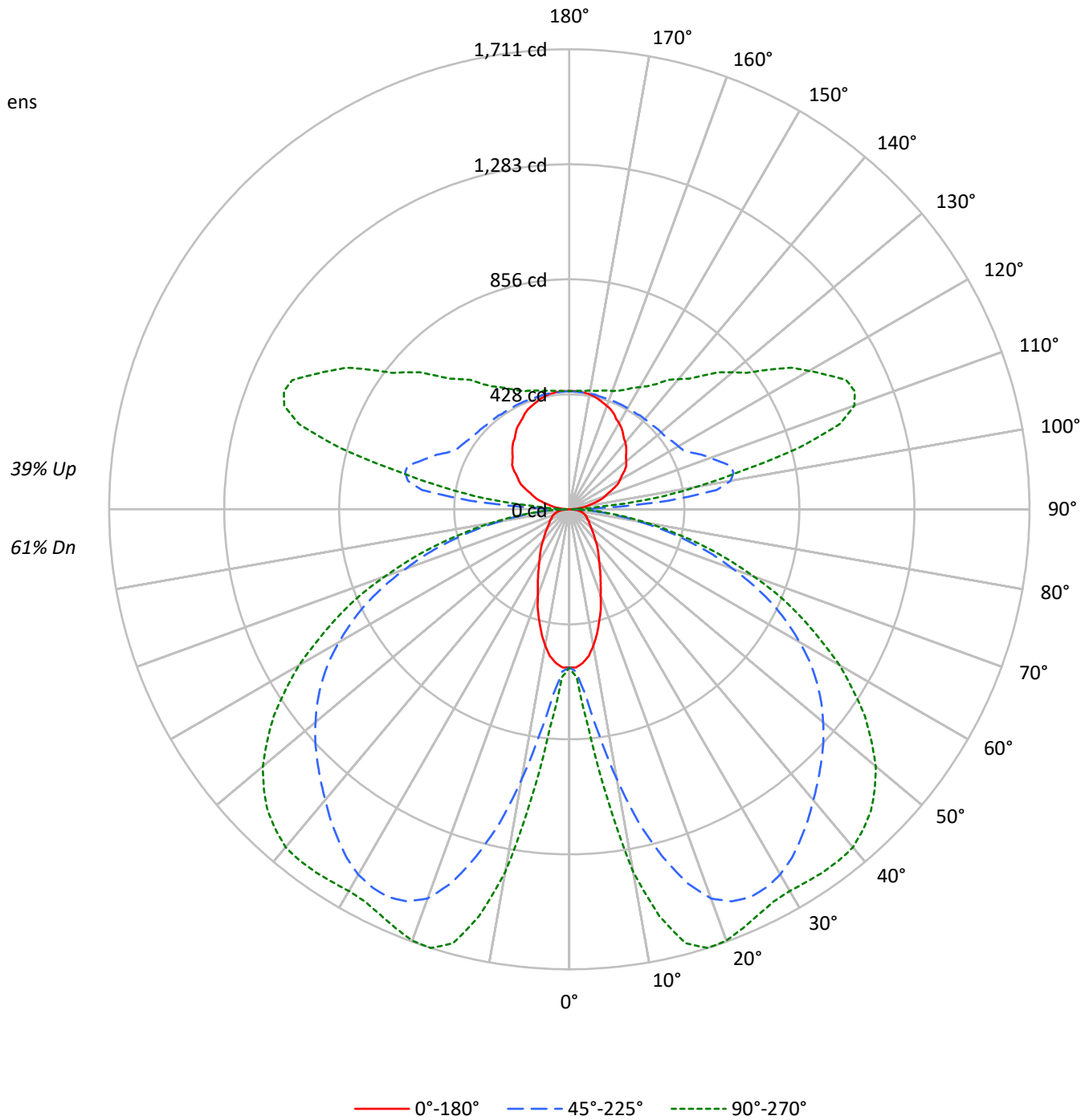
Test Method: LM-79-2019  
Report Number: P936903  
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-B40-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7407.0 lumens  
Efficiency: N/A  
Efficacy: 109.2 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°	3641	3641	3641
5°	3556	4207	4894
10°	3224	6131	8114
15°	2740	8009	9798
20°	2229	9279	9986
25°	1859	9707	9782
30°	1567	9766	9764
35°	1385	9602	10016
40°	1206	9388	10277
45°	1091	9231	10317
50°	1000	9089	10147
55°	957	8882	9697
60°	979	8489	8986
65°	1016	7892	8010
70°	1081	6878	6768
75°	1193	5602	5281
80°	1292	3880	3559
85°	1127	2054	1821

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10317 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.1	1.0
10°-20°	337.5	4.6
20°-30°	590.2	8.0
30°-40°	759.8	10.3
40°-50°	848.7	11.5
50°-60°	812.9	11.0
60°-70°	644.2	8.7
70°-80°	378.8	5.1
80°-90°	106.9	1.4
90°-100°	214.4	2.9
100°-110°	563.8	7.6
110°-120°	584.6	7.9
120°-130°	468.9	6.3
130°-140°	367.9	5.0
140°-150°	282.4	3.8
150°-160°	203.4	2.7
160°-170°	124.4	1.7
170°-180°	42.0	0.6
0°-30°	1003.8	13.6
0°-40°	1763.7	23.8
0°-60°	3425.2	46.2
0°-90°	4555.1	61.5
90°-120°	1362.8	18.4
90°-150°	2482.0	33.5
90°-180°	2852.0	38.5
0°-180°	7407.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	574	615	693	784	812	53
15°	430	793	1336	1620	1671	120
25°	274	899	1592	1662	1664	126
35°	186	859	1499	1584	1647	116
45°	127	685	1325	1518	1586	98
55°	91	435	1124	1306	1342	83
65°	72	231	835	939	952	71
75°	53	142	458	504	505	55
85°	19	44	114	125	127	20
90°	3	8	22	11	11	4
95°	28	111	369	190	130	31
105°	102	154	623	946	883	108
115°	180	219	499	996	1137	178
125°	251	281	454	767	905	223
135°	299	329	440	619	702	231
145°	347	369	434	528	570	217
155°	392	403	434	477	491	180
165°	423	429	434	451	457	119
175°	440	440	437	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°	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6
2.5°	588.6	588.6	592.4	594.3	598.0	599.9	603.8	607.6	618.8	620.8	624.6
5°	573.5	581.0	605.7	615.1	641.6	677.6	692.7	717.3	768.4	783.6	793.0
7.5°	550.7	567.7	628.4	643.5	709.8	804.4	844.1	897.1	978.5	1018.2	1050.4
10°	514.7	550.7	658.7	694.6	802.5	946.3	1020.1	1094.0	1217.0	1271.9	1292.7
12.5°	475.0	533.7	690.8	740.0	895.2	1105.3	1194.2	1275.6	1415.7	1489.5	1500.9
15°	429.7	509.1	721.1	793.0	993.6	1237.8	1336.2	1436.5	1567.1	1620.1	1633.3
17.5°	389.9	490.2	749.5	825.2	1069.3	1357.1	1457.3	1540.6	1646.6	1682.5	1692.0
20°	340.6	459.9	768.4	866.9	1148.9	1444.1	1540.6	1605.0	1676.9	1699.6	1703.3
22.5°	304.7	427.7	779.8	881.9	1201.8	1497.1	1578.4	1629.5	1678.8	1686.3	1688.2
25°	274.5	391.7	777.8	899.0	1247.2	1529.2	1591.7	1629.5	1658.0	1661.7	1661.7
27.5°	246.0	352.0	770.3	902.8	1281.3	1536.8	1586.0	1612.5	1625.8	1633.3	1633.3
30°	221.5	314.2	751.4	895.2	1296.4	1529.2	1569.0	1582.2	1595.5	1606.8	1612.5
32.5°	202.6	278.2	722.9	880.0	1298.3	1510.3	1538.7	1546.2	1565.1	1591.7	1601.2
35°	185.5	242.3	690.8	859.2	1287.0	1480.1	1499.0	1506.5	1544.3	1584.2	1597.3
37.5°	168.5	215.7	649.2	823.3	1270.0	1444.1	1457.3	1470.6	1529.2	1576.5	1591.7
40°	151.4	193.0	599.9	783.6	1243.4	1400.5	1411.9	1432.7	1510.3	1565.1	1580.3
42.5°	138.2	174.1	546.9	741.9	1209.4	1351.3	1368.3	1398.6	1487.6	1546.2	1563.3
45°	126.8	155.2	490.2	685.1	1165.9	1300.2	1324.9	1366.5	1461.1	1517.9	1533.1
47.5°	115.5	141.9	431.6	626.5	1118.5	1249.1	1281.3	1328.6	1425.1	1480.1	1493.2
50°	106.0	128.7	372.8	564.0	1067.4	1194.2	1232.1	1281.3	1379.7	1430.8	1447.9
52.5°	98.5	117.4	317.9	501.6	1008.8	1137.5	1181.0	1232.1	1324.9	1374.1	1385.4
55°	90.8	107.9	270.6	435.3	948.2	1076.9	1124.2	1173.4	1264.2	1305.9	1313.5
57.5°	87.1	100.3	230.9	372.8	883.9	1008.8	1061.8	1107.2	1192.3	1224.5	1232.1
60°	81.4	94.6	200.6	319.8	813.9	944.4	989.9	1035.2	1107.2	1133.7	1139.3
62.5°	75.7	90.8	177.9	268.7	741.9	868.7	914.1	955.8	1016.3	1035.2	1042.9
65°	71.9	87.1	160.9	230.9	668.1	789.2	834.7	870.6	919.9	938.8	942.5
67.5°	68.1	83.3	147.6	198.7	594.3	709.8	743.8	777.8	815.8	834.7	836.6
70°	62.5	79.5	136.3	176.0	518.6	618.8	647.3	683.2	713.5	722.9	728.7
72.5°	58.6	73.8	128.7	159.0	441.0	531.8	558.3	579.1	605.7	615.1	615.1
75°	53.0	66.3	121.1	141.9	361.5	435.3	458.0	478.8	499.7	503.5	497.7
77.5°	47.3	58.6	104.1	119.3	282.0	344.5	363.4	374.7	391.7	395.6	397.5
80°	39.7	51.1	81.4	92.7	204.4	253.6	266.8	276.3	291.5	291.5	295.3
82.5°	30.3	39.7	58.6	66.3	138.2	174.1	185.5	191.2	200.6	200.6	200.6
85°	18.9	24.6	37.8	43.5	83.3	106.0	113.5	115.5	123.0	124.9	124.9
87.5°	9.5	13.3	24.6	26.5	43.5	54.9	54.9	58.6	58.6	56.8	54.9
90°	3.0	5.3	7.7	8.3	13.0	19.3	22.4	20.0	14.9	11.2	11.2
92.5°	11.8	31.9	52.0	57.0	80.1	111.0	126.3	110.7	79.5	56.1	53.9
95°	28.4	65.0	101.8	111.0	197.1	312.0	369.4	329.7	250.1	190.4	183.6
97.5°	49.0	81.5	113.8	122.0	265.6	457.1	552.8	527.6	477.3	439.6	426.7
100°	64.9	94.4	123.8	131.1	290.4	502.9	609.1	610.9	614.6	617.4	602.1
102.5°	78.5	106.0	133.4	140.3	301.9	517.3	625.0	657.0	721.1	769.2	756.1
105°	101.6	124.8	148.0	153.9	310.3	518.9	623.2	695.0	838.6	946.3	939.2
107.5°	125.2	146.9	168.5	173.9	311.9	495.8	587.8	687.9	888.2	1038.4	1040.1
110°	141.1	160.6	180.2	185.1	309.5	475.4	558.3	670.2	894.2	1062.1	1069.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	156.8	175.4	194.1	198.7	309.6	457.5	531.5	646.1	875.2	1047.0	1058.2
115°	180.4	197.6	214.8	219.1	312.5	437.0	499.3	609.7	830.4	995.9	1011.5
117.5°	203.7	219.4	234.9	238.8	318.3	424.2	477.1	576.7	775.9	925.3	942.7
120°	217.3	232.0	246.7	250.4	323.0	419.8	468.2	559.2	741.3	877.7	894.6
122.5°	230.6	245.4	260.2	264.0	329.8	417.5	461.5	543.4	707.4	830.3	846.9
125°	251.0	264.4	278.0	281.3	338.9	415.7	454.1	523.7	663.0	767.3	782.6
127.5°	267.5	281.2	294.8	298.2	348.1	414.7	447.9	507.7	627.1	716.8	729.7
130°	276.4	291.1	305.8	309.4	354.8	415.2	445.5	498.7	605.2	685.0	697.0
132.5°	285.5	300.3	315.0	318.6	360.2	415.7	443.5	491.2	586.4	657.8	668.5
135°	299.1	312.5	325.8	329.2	366.1	415.3	440.0	479.9	559.6	619.4	628.7
137.5°	313.0	326.2	339.4	342.7	374.9	417.8	439.3	473.0	540.4	591.0	598.6
140°	324.5	336.7	348.9	351.9	380.4	418.3	437.3	466.4	524.7	568.3	575.4
142.5°	333.3	344.6	355.8	358.7	384.9	419.8	437.3	462.9	514.0	552.4	558.5
145°	347.0	356.8	366.6	369.1	390.9	419.8	434.3	455.2	497.1	528.5	533.1
147.5°	360.5	370.1	379.7	382.1	399.5	422.7	434.3	450.8	483.7	508.4	512.3
150°	369.4	378.1	386.7	388.9	404.1	424.2	434.3	448.3	476.1	496.9	499.9
152.5°	378.5	385.1	391.6	393.3	406.9	425.2	434.3	446.2	470.0	487.7	490.0
155°	392.1	397.0	401.8	403.0	413.4	427.4	434.3	443.8	462.7	476.8	478.4
157.5°	402.2	406.8	411.6	412.8	419.9	429.6	434.3	441.7	456.4	467.4	468.4
160°	408.9	412.6	416.2	417.1	422.9	430.5	434.3	440.6	453.2	462.7	463.3
162.5°	415.7	418.5	421.3	421.9	426.0	431.6	434.3	439.7	450.3	458.2	458.8
165°	423.1	425.5	428.0	428.7	430.6	433.1	434.3	438.2	445.7	451.4	452.1
167.5°	429.8	431.0	432.2	432.5	434.1	436.2	437.3	439.8	444.7	448.5	448.8
170°	434.3	435.5	436.7	437.0	437.1	437.2	437.3	439.8	444.7	448.5	448.5
172.5°	436.7	437.0	437.2	437.3	437.3	437.3	437.3	439.2	443.1	446.1	445.9
175°	440.0	440.0	440.0	440.0	439.1	437.9	437.3	438.5	441.0	442.8	442.8
177.5°	440.0	440.0	440.0	440.0	439.3	438.3	437.9	438.8	440.8	442.3	442.0
180°	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	588.6	588.6
2.5°	628.4	624.6
5°	808.1	811.9
7.5°	1088.2	1086.4
10°	1353.2	1370.2
12.5°	1546.2	1550.1
15°	1663.6	1671.2
17.5°	1709.1	1710.9
20°	1710.9	1707.2
22.5°	1690.1	1686.3
25°	1665.5	1663.6
27.5°	1642.8	1644.7
30°	1633.3	1639.0
32.5°	1633.3	1642.8
35°	1637.2	1646.6
37.5°	1635.2	1646.6
40°	1627.6	1640.9
42.5°	1606.8	1616.3
45°	1574.7	1586.0
47.5°	1533.1	1540.6
50°	1480.1	1487.6
52.5°	1413.8	1415.7
55°	1334.3	1341.9
57.5°	1249.1	1251.0
60°	1154.5	1160.1
62.5°	1054.2	1054.2
65°	948.2	951.9
67.5°	838.4	847.8
70°	726.8	728.7
72.5°	617.0	617.0
75°	503.5	505.3
77.5°	395.6	395.6
80°	293.4	295.3
82.5°	202.6	206.3
85°	126.8	126.8
87.5°	58.6	53.0
90°	11.2	11.2
92.5°	44.9	36.0
95°	156.6	129.6
97.5°	375.3	323.9
100°	540.8	479.5
102.5°	703.5	651.0
105°	911.1	882.8
107.5°	1046.9	1053.7
110°	1098.7	1128.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1103.4	1148.5
115°	1074.1	1136.7
117.5°	1012.1	1081.5
120°	962.1	1029.6
122.5°	913.5	979.9
125°	843.9	905.2
127.5°	781.5	833.2
130°	744.7	792.5
132.5°	711.3	754.1
135°	665.5	702.4
137.5°	628.9	659.0
140°	603.6	631.8
142.5°	582.7	607.0
145°	551.5	569.8
147.5°	527.4	542.6
150°	512.4	524.7
152.5°	499.4	508.7
155°	484.6	490.7
157.5°	472.8	477.1
160°	465.8	468.2
162.5°	461.2	463.6
165°	454.6	457.1
167.5°	449.8	450.9
170°	448.5	448.5
172.5°	444.9	444.1
175°	442.8	442.8
177.5°	441.0	440.0
180°	440.0	440.0



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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	6.47	7.50	7.32	8.37	9.46	19.64	20.66	20.48	21.54	22.63
	3H	7.19	8.12	8.05	9.00	10.12	21.49	22.41	22.34	23.29	24.41
	4H	7.50	8.37	8.37	9.26	10.39	22.13	23.01	23.01	23.90	25.03
	6H	7.76	8.56	8.64	9.46	10.60	22.57	23.38	23.45	24.27	25.42
	8H	7.83	8.60	8.72	9.51	10.66	22.69	23.46	23.59	24.38	25.52
	12H	7.85	8.59	8.75	9.49	10.66	22.76	23.50	23.66	24.41	25.58
4H	2H	13.70	14.57	14.58	15.46	16.59	19.93	20.81	20.81	21.69	22.82
	3H	15.28	16.02	16.17	16.94	18.08	21.99	22.72	22.88	23.64	24.79
	4H	15.39	16.06	16.29	16.97	18.14	22.76	23.43	23.66	24.34	25.52
	6H	15.41	15.99	16.32	16.93	18.10	23.30	23.88	24.22	24.82	26.00
	8H	15.39	15.93	16.31	16.86	18.05	23.47	24.01	24.39	24.94	26.13
	12H	15.35	15.84	16.29	16.79	17.99	23.57	24.06	24.51	25.01	26.20
8H	4H	16.84	17.38	17.76	18.32	19.50	22.83	23.38	23.75	24.31	25.50
	6H	17.09	17.54	18.04	18.52	19.70	23.47	23.92	24.41	24.89	26.08
	8H	17.11	17.51	18.07	18.48	19.68	23.69	24.09	24.64	25.05	26.25
	12H	17.09	17.44	18.05	18.40	19.65	23.84	24.19	24.80	25.15	26.40
12H	4H	16.99	17.48	17.93	18.43	19.63	22.80	23.29	23.73	24.24	25.43
	6H	17.35	17.75	18.30	18.72	19.92	23.45	23.85	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