

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: P937611

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

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937611
REPORT IS A COMBINATION OF REPORTS P933575 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

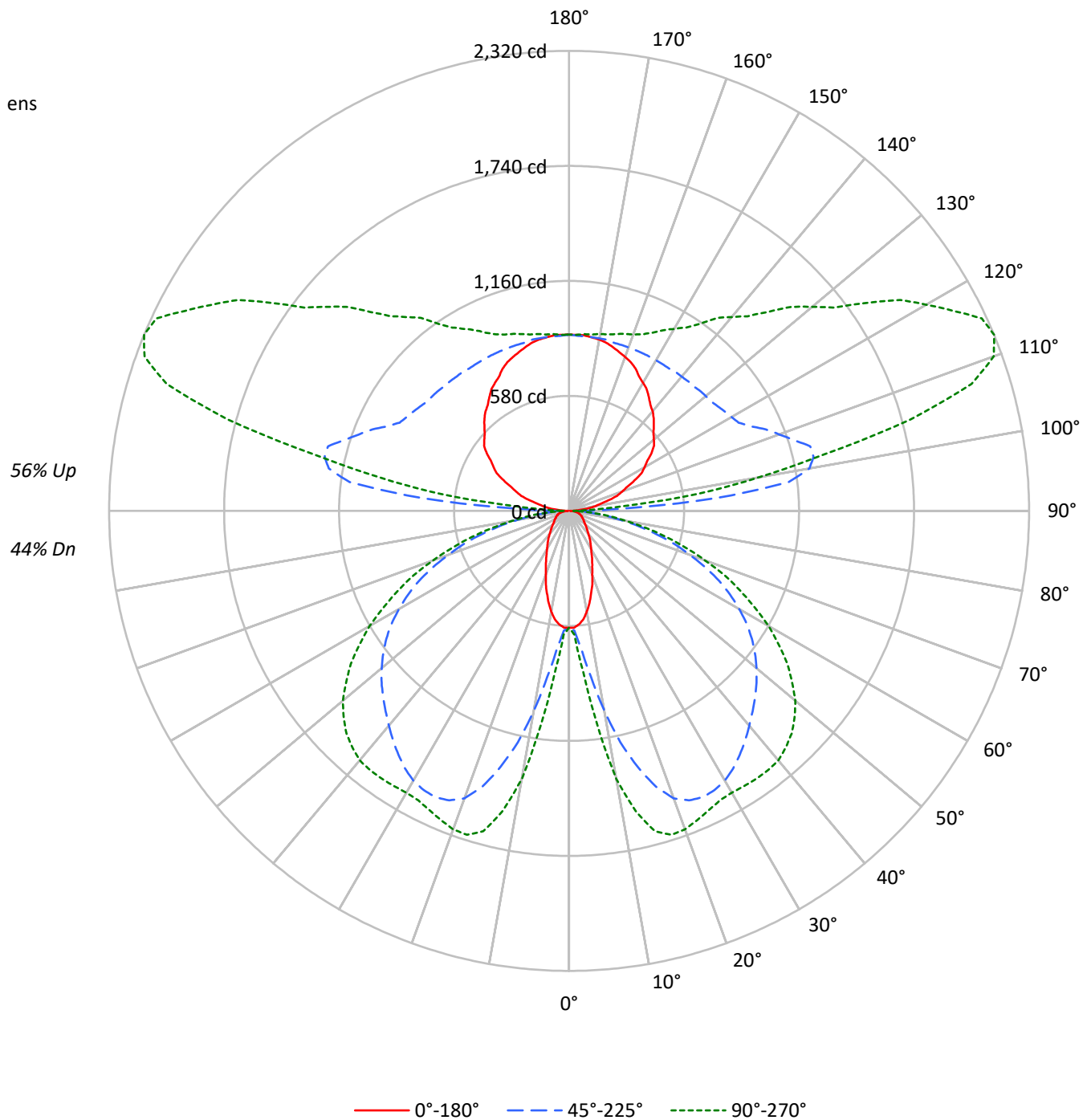
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10322.9 lumens
Efficiency: N/A
Efficacy: 118.7 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: General Diffuse

Input Watts (W): 87
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

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	0.7
10°-20°	337.8	3.3
20°-30°	590.9	5.7
30°-40°	760.6	7.4
40°-50°	849.6	8.2
50°-60°	813.7	7.9
60°-70°	644.9	6.2
70°-80°	379.2	3.7
80°-90°	108.8	1.1
90°-100°	433.2	4.2
100°-110°	1138.9	11.0
110°-120°	1180.9	11.4
120°-130°	947.3	9.2
130°-140°	743.3	7.2
140°-150°	570.5	5.5
150°-160°	410.8	4.0
160°-170°	251.4	2.4
170°-180°	84.9	0.8
0°-30°	1004.9	9.7
0°-40°	1765.5	17.1
0°-60°	3428.8	33.2
0°-90°	4561.6	44.2
90°-120°	2753.1	26.7
90°-150°	5014.1	48.6
90°-180°	5761.0	55.8
0°-180°	10322.9	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°	6	17	45	23	23	6
95°	57	224	746	385	262	64
105°	205	311	1259	1912	1783	218
115°	364	442	1009	2012	2296	360
125°	507	568	917	1550	1829	450
135°	604	665	889	1251	1419	467
145°	701	746	877	1068	1151	439
155°	792	814	877	963	991	364
165°	855	866	877	912	923	241
175°	889	889	883	895	895	84
180°	889	889	889	889	889	



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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°	5.9	10.7	15.5	16.7	26.3	39.0	45.3	40.2	30.2	22.7	22.7
92.5°	23.9	64.4	105.0	115.1	161.9	224.1	255.3	223.7	160.6	113.3	108.8
95°	57.3	131.4	205.7	224.3	398.3	630.2	746.2	665.9	505.2	384.7	371.0
97.5°	99.0	164.5	230.0	246.4	536.4	923.2	1116.6	1065.8	964.3	888.1	862.1
100°	131.3	190.6	250.0	264.8	586.7	1015.8	1230.5	1234.2	1241.7	1247.2	1216.2
102.5°	158.7	214.1	269.5	283.4	609.8	1045.1	1262.7	1327.4	1456.8	1553.8	1527.3
105°	205.2	252.1	299.0	310.8	626.9	1048.4	1259.1	1404.2	1694.1	1911.6	1897.4
107.5°	252.9	296.6	340.4	351.3	630.1	1001.7	1187.5	1389.8	1794.3	2097.8	2101.2
110°	285.1	324.6	364.1	374.0	625.3	960.4	1127.9	1354.0	1806.3	2145.5	2160.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	316.7	354.4	392.1	401.4	625.5	924.3	1073.6	1305.0	1767.9	2115.1	2137.8
115°	364.4	399.1	433.8	442.5	631.2	882.8	1008.6	1231.5	1677.5	2011.9	2043.5
117.5°	411.6	443.1	474.7	482.5	642.9	856.9	963.8	1165.1	1567.5	1869.3	1904.4
120°	439.0	468.7	498.4	505.8	652.6	848.2	946.0	1129.8	1497.5	1773.3	1807.3
122.5°	465.9	495.8	525.8	533.3	666.2	843.6	932.3	1097.9	1428.9	1677.2	1710.9
125°	507.0	534.3	561.6	568.4	684.8	839.8	917.4	1058.0	1339.3	1550.2	1581.2
127.5°	540.4	568.0	595.6	602.5	703.2	837.6	904.9	1025.6	1267.1	1448.2	1474.3
130°	558.3	588.0	617.7	625.1	716.8	839.0	900.1	1007.5	1222.5	1383.8	1407.9
132.5°	576.8	606.5	636.1	643.6	727.7	839.8	895.9	992.1	1184.6	1328.9	1350.5
135°	604.2	631.2	658.3	665.1	739.7	839.0	888.7	969.3	1130.5	1251.4	1270.0
137.5°	632.2	659.0	685.8	692.5	757.5	844.2	887.6	955.7	1091.9	1194.1	1209.3
140°	655.5	680.2	704.9	711.0	768.4	845.0	883.3	942.2	1059.9	1148.2	1162.4
142.5°	673.4	696.3	719.0	724.7	777.6	848.1	883.3	935.1	1038.4	1115.9	1128.2
145°	700.8	720.7	740.6	745.6	789.6	848.2	877.4	919.7	1004.3	1067.7	1076.9
147.5°	728.3	747.6	766.9	771.8	807.0	853.9	877.4	910.7	977.2	1027.1	1034.8
150°	746.2	763.7	781.1	785.5	816.1	857.0	877.4	905.5	961.6	1003.8	1010.0
152.5°	764.7	778.0	791.2	794.5	822.2	859.0	877.4	901.4	949.4	985.3	990.0
155°	792.1	801.9	811.6	814.1	835.3	863.4	877.4	896.5	934.7	963.3	966.4
157.5°	812.4	822.0	831.4	833.8	848.4	867.8	877.4	892.2	922.0	944.2	946.4
160°	826.1	833.5	841.0	842.8	854.4	869.8	877.4	890.1	915.6	934.7	935.9
162.5°	839.8	845.4	850.9	852.4	860.7	871.9	877.4	888.1	909.6	925.7	926.8
165°	854.8	859.7	864.8	866.0	869.9	874.9	877.4	885.1	900.5	912.0	913.3
167.5°	868.4	870.8	873.2	873.8	876.9	881.2	883.3	888.4	898.4	906.0	906.6
170°	877.4	879.8	882.2	882.8	883.0	883.2	883.3	888.4	898.4	906.0	906.0
172.5°	882.2	882.7	883.2	883.3	883.3	883.3	883.3	887.4	895.3	901.2	900.7
175°	888.7	888.7	888.7	888.7	886.9	884.5	883.3	885.8	890.9	894.7	894.7
177.5°	888.7	888.7	888.7	888.7	887.4	885.5	884.6	886.6	890.5	893.5	892.9
180°	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7



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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°	22.7	22.7
92.5°	90.7	72.8
95°	316.4	261.8
97.5°	758.2	654.3
100°	1092.4	968.6
102.5°	1421.2	1315.2
105°	1840.4	1783.4
107.5°	2115.1	2128.8
110°	2219.7	2279.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2229.0	2320.2
115°	2169.9	2296.4
117.5°	2044.6	2184.8
120°	1943.6	2079.9
122.5°	1845.3	1979.7
125°	1704.9	1828.7
127.5°	1578.8	1683.2
130°	1504.5	1600.9
132.5°	1437.0	1523.4
135°	1344.5	1419.0
137.5°	1270.3	1331.3
140°	1219.5	1276.5
142.5°	1177.3	1226.4
145°	1114.1	1151.2
147.5°	1065.6	1096.3
150°	1035.0	1059.9
152.5°	1008.9	1027.7
155°	978.8	991.3
157.5°	955.1	963.8
160°	941.0	946.0
162.5°	931.6	936.4
165°	918.3	923.3
167.5°	908.7	910.8
170°	906.0	906.0
172.5°	898.9	897.1
175°	894.7	894.7
177.5°	890.8	888.7
180°	888.7	888.7



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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	4.94	5.78	5.94	6.80	8.15	18.10	18.95	19.10	19.96	21.31
	3H	5.64	6.40	6.65	7.43	8.80	19.94	20.70	20.95	21.72	23.09
	4H	5.94	6.66	6.96	7.69	9.06	20.58	21.30	21.60	22.32	23.70
	6H	6.19	6.85	7.22	7.88	9.27	21.00	21.67	22.04	22.70	24.09
	8H	6.26	6.89	7.30	7.94	9.32	21.12	21.75	22.16	22.80	24.19
	12H	6.28	6.88	7.32	7.92	9.33	21.19	21.79	22.23	22.83	24.24
4H	2H	12.14	12.86	13.17	13.89	15.27	18.38	19.10	19.40	20.12	21.50
	3H	13.71	14.31	14.75	15.37	16.76	20.42	21.02	21.45	22.07	23.46
	4H	13.81	14.36	14.85	15.40	16.82	21.18	21.73	22.22	22.78	24.19
	6H	13.82	14.29	14.87	15.36	16.77	21.71	22.19	22.77	23.26	24.67
	8H	13.79	14.24	14.85	15.30	16.72	21.87	22.32	22.93	23.38	24.80
	12H	13.75	14.15	14.82	15.23	16.66	21.96	22.36	23.04	23.44	24.87
8H	4H	15.24	15.69	16.30	16.75	18.18	21.24	21.68	22.29	22.74	24.17
	6H	15.49	15.85	16.56	16.96	18.38	21.86	22.23	22.94	23.33	24.76
	8H	15.50	15.83	16.59	16.91	18.36	22.08	22.40	23.17	23.49	24.93
	12H	15.47	15.76	16.56	16.84	18.32	22.22	22.51	23.31	23.59	25.07
12H	4H	15.39	15.79	16.46	16.86	18.29	21.19	21.59	22.26	22.67	24.10
	6H	15.74	16.07	16.83	17.15	18.60	21.85	22.17	22.93	23.26	24.70
	8H	15.81	16.10	16.90	17.18	18.66	22.07	22.36	23.16	23.44	24.92