

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: P937661

Luminaire Tested: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937661
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-93050-1D-UNV-STD-W-6-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

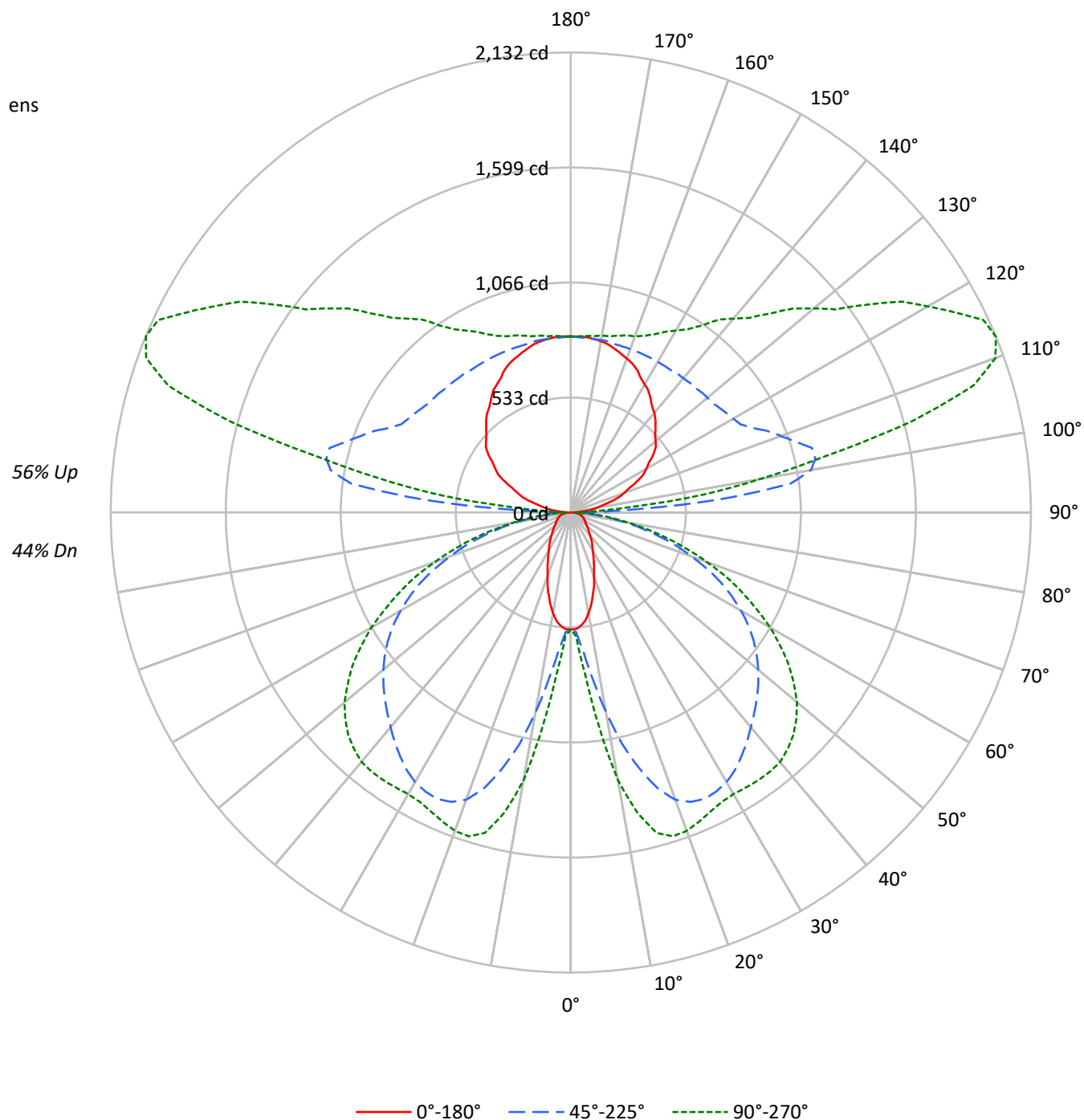
Lumens per Lamp: N/A
Luminaire Lumens: 9483.9 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

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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CATALOG NUMBER: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-6-3000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3349	3349	3349
5°	3270	3869	4501
10°	2965	5639	7462
15°	2519	7366	9010
20°	2050	8534	9184
25°	1710	8928	8997
30°	1441	8982	8979
35°	1273	8831	9212
40°	1109	8634	9452
45°	1003	8490	9489
50°	920	8359	9332
55°	880	8169	8918
60°	899	7807	8265
65°	934	7258	7367
70°	993	6325	6224
75°	1096	5152	4857
80°	1188	3569	3274
85°	1037	1890	1675

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 9489 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	0.7
10°-20°	310.3	3.3
20°-30°	542.8	5.7
30°-40°	698.8	7.4
40°-50°	780.5	8.2
50°-60°	747.6	7.9
60°-70°	592.5	6.2
70°-80°	348.4	3.7
80°-90°	99.9	1.1
90°-100°	398.0	4.2
100°-110°	1046.4	11.0
110°-120°	1085.0	11.4
120°-130°	870.3	9.2
130°-140°	682.9	7.2
140°-150°	524.1	5.5
150°-160°	377.5	4.0
160°-170°	231.0	2.4
170°-180°	78.0	0.8
0°-30°	923.2	9.7
0°-40°	1622.0	17.1
0°-60°	3150.1	33.2
0°-90°	4190.9	44.2
90°-120°	2529.3	26.7
90°-150°	4606.6	48.6
90°-180°	5293.0	55.8
0°-180°	9483.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	527	566	637	721	747	49
15°	395	729	1229	1490	1537	110
25°	252	827	1464	1528	1530	116
35°	171	790	1379	1457	1514	107
45°	117	630	1218	1396	1459	90
55°	84	400	1034	1201	1234	76
65°	66	212	768	863	876	66
75°	49	130	421	463	465	51
85°	17	40	104	115	117	18
90°	5	15	42	21	21	6
95°	53	206	686	353	241	58
105°	188	286	1157	1756	1638	200
115°	335	407	927	1848	2110	331
125°	466	522	843	1424	1680	414
135°	555	611	816	1150	1304	429
145°	644	685	806	981	1058	403
155°	728	748	806	885	911	334
165°	785	796	806	838	848	222
175°	816	816	812	822	822	78
180°	816	816	816	816	816	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3
2.5°	541.3	541.3	544.8	546.6	550.0	551.7	555.3	558.8	569.1	570.9	574.4
5°	527.4	534.4	557.0	565.7	590.0	623.2	637.0	659.7	706.7	720.6	729.3
7.5°	506.5	522.1	577.9	591.8	652.8	739.8	776.3	825.1	899.9	936.4	966.0
10°	473.4	506.5	605.8	638.8	738.0	870.3	938.2	1006.1	1119.2	1169.7	1188.9
12.5°	436.9	490.9	635.4	680.6	823.3	1016.5	1098.3	1173.1	1302.0	1369.9	1380.3
15°	395.1	468.2	663.2	729.3	913.8	1138.4	1228.9	1321.1	1441.2	1489.9	1502.2
17.5°	358.6	450.8	689.3	758.9	983.4	1248.1	1340.3	1416.9	1514.4	1547.4	1556.1
20°	313.3	423.0	706.7	797.2	1056.6	1328.1	1416.9	1476.1	1542.2	1563.1	1566.5
22.5°	280.3	393.4	717.1	811.1	1105.3	1376.8	1451.7	1498.6	1544.0	1550.9	1552.7
25°	252.4	360.3	715.4	826.8	1147.1	1406.4	1463.9	1498.6	1524.8	1528.2	1528.2
27.5°	226.3	323.7	708.4	830.3	1178.4	1413.4	1458.6	1483.0	1495.2	1502.2	1502.2
30°	203.7	289.0	691.0	823.3	1192.3	1406.4	1443.0	1455.2	1467.4	1477.7	1483.0
32.5°	186.3	255.8	664.9	809.4	1194.1	1389.0	1415.1	1422.1	1439.4	1463.9	1472.6
35°	170.6	222.8	635.4	790.2	1183.6	1361.2	1378.6	1385.5	1420.3	1456.9	1469.0
37.5°	154.9	198.4	597.1	757.2	1168.0	1328.1	1340.3	1352.5	1406.4	1449.9	1463.9
40°	139.2	177.5	551.7	720.6	1143.5	1288.0	1298.5	1317.6	1389.0	1439.4	1453.4
42.5°	127.1	160.1	503.0	682.4	1112.3	1242.8	1258.4	1286.3	1368.1	1422.1	1437.8
45°	116.6	142.7	450.8	630.1	1072.2	1195.8	1218.5	1256.8	1343.7	1396.0	1409.9
47.5°	106.2	130.5	396.9	576.2	1028.7	1148.8	1178.4	1221.9	1310.7	1361.2	1373.3
50°	97.5	118.4	342.9	518.7	981.7	1098.3	1133.2	1178.4	1268.9	1315.9	1331.6
52.5°	90.6	107.9	292.4	461.3	927.7	1046.1	1086.1	1133.2	1218.5	1263.7	1274.2
55°	83.5	99.2	248.9	400.3	872.1	990.4	1033.9	1079.2	1162.7	1201.0	1208.0
57.5°	80.1	92.2	212.4	342.9	812.9	927.7	976.5	1018.3	1096.6	1126.2	1133.2
60°	74.8	87.0	184.5	294.1	748.5	868.6	910.4	952.1	1018.3	1042.6	1047.8
62.5°	69.6	83.5	163.6	247.2	682.4	798.9	840.7	879.0	934.7	952.1	959.1
65°	66.1	80.1	148.0	212.4	614.5	725.8	767.6	800.7	846.0	863.4	866.8
67.5°	62.6	76.6	135.8	182.8	546.6	652.8	684.0	715.4	750.2	767.6	769.4
70°	57.4	73.1	125.3	161.9	476.9	569.1	595.3	628.3	656.2	664.9	670.1
72.5°	53.9	67.9	118.4	146.2	405.6	489.1	513.5	532.6	557.0	565.7	565.7
75°	48.7	61.0	111.4	130.5	332.4	400.3	421.2	440.4	459.5	463.0	457.8
77.5°	43.5	53.9	95.7	109.7	259.4	316.8	334.2	344.6	360.3	363.8	365.5
80°	36.5	47.0	74.8	85.3	188.0	233.3	245.4	254.1	268.1	268.1	271.6
82.5°	27.8	36.5	53.9	61.0	127.1	160.1	170.6	175.8	184.5	184.5	184.5
85°	17.4	22.7	34.8	40.1	76.6	97.5	104.4	106.2	113.1	114.9	114.9
87.5°	8.7	12.2	22.7	24.3	40.1	50.5	50.5	53.9	53.9	52.3	50.5
90°	5.4	9.8	14.2	15.4	24.2	35.8	41.6	37.0	27.8	20.8	20.8
92.5°	22.0	59.2	96.4	105.7	148.7	205.9	234.5	205.5	147.6	104.1	100.0
95°	52.6	120.8	189.0	206.0	365.9	579.0	685.5	611.7	464.1	353.4	340.9
97.5°	91.0	151.2	211.3	226.3	492.8	848.2	1025.9	979.2	885.9	815.9	792.1
100°	120.6	175.1	229.7	243.3	539.0	933.3	1130.5	1133.9	1140.7	1145.8	1117.4
102.5°	145.8	196.7	247.6	260.3	560.3	960.2	1160.1	1219.5	1338.4	1427.5	1403.2
105°	188.5	231.6	274.7	285.5	576.0	963.2	1156.8	1290.0	1556.4	1756.3	1743.2
107.5°	232.3	272.5	312.8	322.8	578.9	920.3	1091.0	1276.9	1648.5	1927.3	1930.4
110°	261.9	298.2	334.5	343.6	574.5	882.3	1036.2	1243.9	1659.5	1971.1	1984.7

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	291.0	325.6	360.2	368.8	574.7	849.1	986.3	1199.0	1624.2	1943.2	1964.1
115°	334.8	366.7	398.6	406.6	579.9	811.0	926.6	1131.4	1541.2	1848.4	1877.5
117.5°	378.1	407.1	436.1	443.3	590.7	787.2	885.5	1070.4	1440.1	1717.3	1749.6
120°	403.3	430.6	457.9	464.7	599.5	779.2	869.1	1038.0	1375.8	1629.2	1660.4
122.5°	428.0	455.5	483.1	489.9	612.1	775.0	856.5	1008.6	1312.8	1540.9	1571.8
125°	465.8	490.9	516.0	522.2	629.1	771.6	842.8	972.0	1230.4	1424.3	1452.7
127.5°	496.5	521.8	547.2	553.5	646.1	769.6	831.3	942.2	1164.1	1330.5	1354.5
130°	512.9	540.2	567.5	574.3	658.6	770.8	826.9	925.6	1123.2	1271.3	1293.5
132.5°	529.9	557.2	584.4	591.3	668.6	771.6	823.1	911.5	1088.3	1220.9	1240.8
135°	555.1	579.9	604.8	611.0	679.5	770.8	816.5	890.5	1038.6	1149.7	1166.8
137.5°	580.8	605.4	630.1	636.2	696.0	775.6	815.4	878.0	1003.2	1097.1	1111.1
140°	602.3	624.9	647.6	653.2	706.0	776.3	811.6	865.7	973.8	1054.8	1067.9
142.5°	618.7	639.7	660.6	665.8	714.4	779.1	811.6	859.1	954.0	1025.2	1036.5
145°	643.9	662.2	680.4	685.0	725.4	779.2	806.1	844.9	922.7	980.9	989.4
147.5°	669.1	686.8	704.6	709.1	741.4	784.5	806.1	836.7	897.8	943.6	950.7
150°	685.5	701.6	717.7	721.7	749.8	787.3	806.1	831.9	883.5	922.2	927.9
152.5°	702.6	714.8	726.9	730.0	755.3	789.2	806.1	828.2	872.2	905.3	909.6
155°	727.8	736.7	745.7	748.0	767.4	793.2	806.1	823.7	858.7	885.0	887.9
157.5°	746.4	755.2	763.9	766.1	779.4	797.2	806.1	819.7	847.0	867.5	869.5
160°	758.9	765.8	772.6	774.3	784.9	799.1	806.1	817.8	841.1	858.7	859.9
162.5°	771.6	776.7	781.8	783.1	790.7	801.0	806.1	815.9	835.7	850.5	851.5
165°	785.3	789.9	794.5	795.7	799.2	803.8	806.1	813.1	827.3	837.9	839.0
167.5°	797.8	800.0	802.2	802.8	805.7	809.6	811.6	816.2	825.4	832.4	832.9
170°	806.1	808.3	810.5	811.0	811.2	811.5	811.6	816.2	825.4	832.4	832.4
172.5°	810.5	810.9	811.5	811.6	811.6	811.6	811.6	815.2	822.5	828.0	827.5
175°	816.5	816.5	816.5	816.5	814.8	812.6	811.6	813.8	818.5	822.0	822.0
177.5°	816.5	816.5	816.5	816.5	815.2	813.6	812.7	814.5	818.1	820.9	820.3
180°	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	541.3	541.3
2.5°	577.9	574.4
5°	743.2	746.7
7.5°	1000.8	999.2
10°	1244.6	1260.2
12.5°	1422.1	1425.6
15°	1530.0	1536.9
17.5°	1571.8	1573.5
20°	1573.5	1570.1
22.5°	1554.3	1550.9
25°	1531.8	1530.0
27.5°	1510.9	1512.6
30°	1502.2	1507.3
32.5°	1502.2	1510.9
35°	1505.7	1514.4
37.5°	1503.9	1514.4
40°	1496.9	1509.1
42.5°	1477.7	1486.5
45°	1448.2	1458.6
47.5°	1409.9	1416.9
50°	1361.2	1368.1
52.5°	1300.2	1302.0
55°	1227.2	1234.1
57.5°	1148.8	1150.6
60°	1061.8	1067.0
62.5°	969.6	969.6
65°	872.1	875.5
67.5°	771.1	779.8
70°	668.4	670.1
72.5°	567.5	567.5
75°	463.0	464.7
77.5°	363.8	363.8
80°	269.8	271.6
82.5°	186.3	189.7
85°	116.6	116.6
87.5°	53.9	48.7
90°	20.8	20.8
92.5°	83.4	66.8
95°	290.7	240.6
97.5°	696.6	601.1
100°	1003.6	889.9
102.5°	1305.7	1208.3
105°	1690.8	1638.5
107.5°	1943.2	1955.8
110°	2039.3	2093.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2047.8	2131.6
115°	1993.6	2109.8
117.5°	1878.4	2007.3
120°	1785.7	1910.8
122.5°	1695.3	1818.8
125°	1566.4	1680.1
127.5°	1450.5	1546.4
130°	1382.2	1470.8
132.5°	1320.2	1399.6
135°	1235.2	1303.7
137.5°	1167.1	1223.1
140°	1120.4	1172.7
142.5°	1081.6	1126.7
145°	1023.6	1057.7
147.5°	979.0	1007.2
150°	950.8	973.8
152.5°	926.9	944.2
155°	899.3	910.7
157.5°	877.5	885.5
160°	864.5	869.1
162.5°	855.9	860.3
165°	843.7	848.3
167.5°	834.8	836.8
170°	832.4	832.4
172.5°	825.9	824.2
175°	822.0	822.0
177.5°	818.4	816.5
180°	816.5	816.5

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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	4.65	5.49	5.64	6.50	7.85	17.81	18.65	18.81	19.67	21.02
	3H	5.35	6.11	6.36	7.13	8.50	19.64	20.40	20.65	21.42	22.79
	4H	5.65	6.37	6.67	7.39	8.77	20.28	21.00	21.30	22.03	23.41
	6H	5.90	6.56	6.93	7.59	8.98	20.71	21.37	21.74	22.40	23.79
	8H	5.96	6.60	7.00	7.64	9.03	20.83	21.46	21.86	22.51	23.89
	12H	5.98	6.58	7.02	7.62	9.03	20.89	21.49	21.94	22.53	23.95
4H	2H	11.85	12.57	12.88	13.59	14.97	18.08	18.80	19.11	19.83	21.20
	3H	13.42	14.02	14.45	15.07	16.46	20.12	20.72	21.16	21.78	23.17
	4H	13.51	14.06	14.55	15.11	16.52	20.88	21.44	21.93	22.48	23.89
	6H	13.52	14.00	14.57	15.07	16.47	21.42	21.89	22.47	22.96	24.37
	8H	13.50	13.94	14.55	15.00	16.43	21.58	22.02	22.63	23.08	24.51
	12H	13.45	13.85	14.53	14.93	16.36	21.67	22.07	22.74	23.15	24.58
8H	4H	14.95	15.39	16.01	16.46	17.88	20.94	21.39	22.00	22.45	23.87
	6H	15.19	15.56	16.27	16.66	18.08	21.57	21.94	22.65	23.04	24.46
	8H	15.21	15.53	16.30	16.62	18.06	21.78	22.11	22.87	23.20	24.64
	12H	15.18	15.46	16.27	16.54	18.02	21.93	22.21	23.02	23.29	24.77
12H	4H	15.09	15.49	16.17	16.57	18.00	20.90	21.30	21.97	22.37	23.80
	6H	15.45	15.77	16.53	16.86	18.30	21.55	21.88	22.64	22.96	24.40
	8H	15.52	15.80	16.61	16.89	18.37	21.78	22.06	22.87	23.15	24.63