

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: P936654

Luminaire Tested: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936654
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

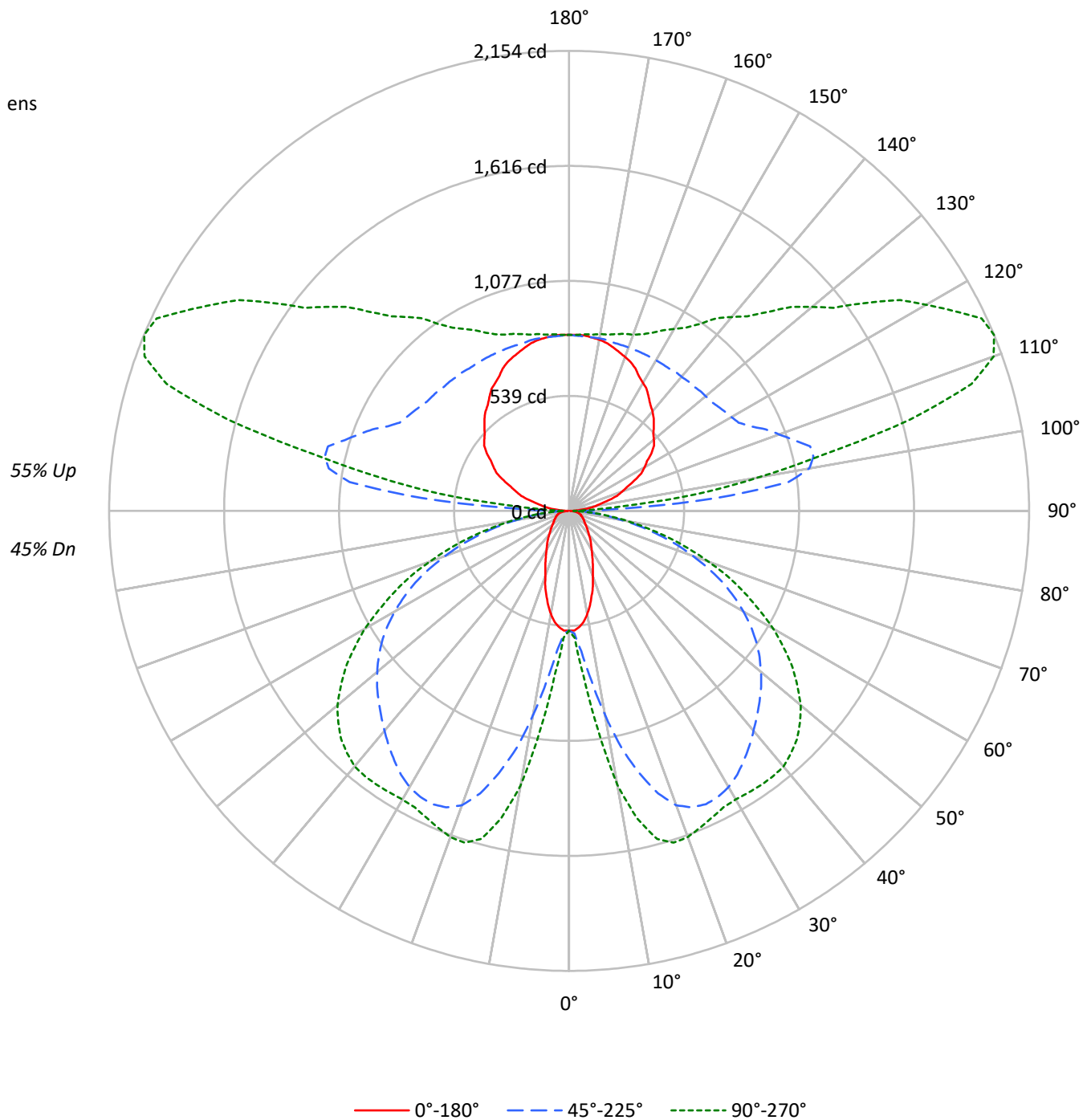
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9684.6 lumens
Efficiency: N/A
Efficacy: 113.7 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: General Diffuse

Input Watts (W): 85.2
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

TEST NUMBER: P936654
CATALOG NUMBER: SQ4-FB-050U-050D-93050-1D-UNV-STD-W-12-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P936654

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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	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1733	1733	1733
5°	1694	2003	2329
10°	1537	2921	3862
15°	1307	3817	4663
20°	1064	4425	4752
25°	888	4631	4656
30°	749	4662	4647
35°	663	4586	4767
40°	578	4487	4891
45°	524	4414	4911
50°	481	4349	4829
55°	461	4254	4615
60°	472	4069	4277
65°	493	3787	3812
70°	525	3305	3221
75°	584	2696	2514
80°	645	1872	1693
85°	583	995	867

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4911 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	0.7
10°-20°	321.2	3.3
20°-30°	561.8	5.8
30°-40°	723.2	7.5
40°-50°	807.8	8.3
50°-60°	773.7	8.0
60°-70°	613.2	6.3
70°-80°	360.6	3.7
80°-90°	103.3	1.1
90°-100°	402.1	4.2
100°-110°	1057.1	10.9
110°-120°	1096.1	11.3
120°-130°	879.2	9.1
130°-140°	689.9	7.1
140°-150°	529.5	5.5
150°-160°	381.3	3.9
160°-170°	233.3	2.4
170°-180°	78.8	0.8
0°-30°	955.5	9.9
0°-40°	1678.7	17.3
0°-60°	3260.3	33.7
0°-90°	4337.4	44.8
90°-120°	2555.2	26.4
90°-150°	4653.8	48.1
90°-180°	5347.0	55.2
0°-180°	9684.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	546	585	659	746	773	50
15°	409	755	1272	1542	1591	114
25°	261	856	1515	1582	1584	120
35°	177	818	1427	1508	1567	110
45°	121	652	1261	1445	1510	93
55°	86	414	1070	1243	1277	79
65°	68	220	794	894	906	68
75°	50	135	436	479	481	53
85°	18	42	108	119	121	19
90°	6	16	42	21	21	6
95°	53	208	692	357	243	59
105°	190	288	1169	1774	1655	202
115°	338	411	936	1867	2131	334
125°	471	528	851	1439	1697	418
135°	561	617	825	1162	1317	434
145°	650	692	814	991	1068	408
155°	735	756	814	894	920	338
165°	793	804	814	846	857	224
175°	825	825	820	830	830	78
180°	825	825	825	825	825	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3
2.5°	560.3	560.3	563.9	565.7	569.2	571.0	574.7	578.3	589.1	590.9	594.5
5°	545.9	553.0	576.5	585.4	610.7	644.9	659.3	682.8	731.4	745.8	754.8
7.5°	524.2	540.4	598.1	612.5	675.6	765.7	803.5	853.9	931.4	969.2	999.8
10°	490.0	524.2	626.9	661.2	763.8	900.8	971.0	1041.2	1158.4	1210.6	1230.4
12.5°	452.1	508.0	657.5	704.3	852.1	1052.1	1136.8	1214.2	1347.5	1417.8	1428.6
15°	409.0	484.6	686.3	754.8	945.8	1178.1	1271.9	1367.3	1491.7	1542.1	1554.7
17.5°	371.1	466.5	713.4	785.5	1017.9	1291.7	1387.1	1466.4	1567.3	1601.5	1610.6
20°	324.3	437.8	731.4	825.1	1093.5	1374.6	1466.4	1527.7	1596.2	1617.7	1621.3
22.5°	290.1	407.1	742.2	839.5	1143.9	1425.0	1502.4	1551.1	1598.0	1605.1	1606.9
25°	261.3	372.9	740.4	855.7	1187.2	1455.6	1515.0	1551.1	1578.1	1581.7	1581.7
27.5°	234.2	335.1	733.2	859.3	1219.6	1462.9	1509.7	1534.8	1547.5	1554.7	1554.7
30°	210.8	299.0	715.2	852.1	1234.0	1455.6	1493.5	1506.1	1518.6	1529.5	1534.8
32.5°	192.8	264.8	688.1	837.7	1235.8	1437.6	1464.6	1471.8	1489.8	1515.0	1524.1
35°	176.6	230.6	657.5	817.9	1225.1	1408.8	1426.8	1434.0	1470.0	1507.9	1520.4
37.5°	160.4	205.4	617.9	783.7	1208.8	1374.6	1387.1	1399.7	1455.6	1500.6	1515.0
40°	144.1	183.7	571.0	745.8	1183.6	1333.1	1344.0	1363.7	1437.6	1489.8	1504.2
42.5°	131.5	165.7	520.6	706.2	1151.2	1286.3	1302.5	1331.3	1415.9	1471.8	1488.0
45°	120.7	147.7	466.5	652.1	1109.7	1237.6	1261.0	1300.7	1390.8	1444.8	1459.2
47.5°	109.9	135.1	410.8	596.3	1064.7	1189.0	1219.6	1264.6	1356.5	1408.8	1421.4
50°	100.9	122.5	354.9	536.8	1016.0	1136.8	1172.8	1219.6	1313.3	1361.9	1378.2
52.5°	93.6	111.7	302.6	477.4	960.2	1082.7	1124.2	1172.8	1261.0	1307.9	1318.7
55°	86.5	102.7	257.6	414.4	902.6	1025.0	1070.1	1116.9	1203.4	1243.1	1250.2
57.5°	82.9	95.4	219.8	354.9	841.3	960.2	1010.6	1053.9	1134.9	1165.6	1172.8
60°	77.4	90.1	191.0	304.5	774.6	899.0	942.2	985.4	1053.9	1079.1	1084.5
62.5°	72.1	86.5	169.3	255.8	706.2	826.9	870.2	909.7	967.4	985.4	992.6
65°	68.5	82.9	153.1	219.8	635.9	751.3	794.5	828.7	875.5	893.5	897.1
67.5°	64.8	79.2	140.5	189.2	565.7	675.6	708.0	740.4	776.4	794.5	796.3
70°	59.4	75.7	129.7	167.5	493.6	589.1	616.2	650.4	679.2	688.1	693.6
72.5°	55.9	70.3	122.5	151.3	419.7	506.2	531.5	551.2	576.5	585.4	585.4
75°	50.4	63.0	115.3	135.1	344.1	414.4	435.9	455.8	475.6	479.2	473.8
77.5°	45.0	55.9	99.1	113.5	268.4	327.9	345.9	356.7	372.9	376.5	378.3
80°	37.9	48.6	77.4	88.3	194.6	241.4	254.0	263.0	277.5	277.5	281.0
82.5°	28.8	37.9	55.9	63.0	131.5	165.7	176.6	181.9	191.0	191.0	191.0
85°	18.0	23.5	36.0	41.5	79.2	100.9	108.1	109.9	117.1	118.9	118.9
87.5°	9.0	12.6	23.5	25.2	41.5	52.3	52.3	55.9	55.9	54.1	52.3
90°	5.6	9.9	14.4	15.5	24.4	36.2	42.1	37.4	28.0	21.0	21.0
92.5°	22.1	59.7	97.4	106.8	150.1	208.0	236.9	207.6	149.1	105.2	101.0
95°	53.2	122.0	191.0	208.2	369.6	584.9	692.5	617.9	468.9	357.1	344.3
97.5°	91.9	152.7	213.4	228.7	497.9	856.8	1036.3	989.2	895.0	824.3	800.2
100°	121.8	176.9	232.0	245.8	544.5	942.9	1142.1	1145.5	1152.4	1157.5	1128.8
102.5°	147.3	198.7	250.1	263.0	565.9	970.0	1172.0	1231.9	1352.0	1442.1	1417.5
105°	190.4	233.9	277.5	288.4	581.8	973.0	1168.7	1303.2	1572.3	1774.2	1761.0
107.5°	234.8	275.3	316.0	326.1	584.8	929.8	1102.2	1290.0	1665.5	1947.0	1950.3
110°	264.7	301.3	338.0	347.1	580.3	891.4	1046.9	1256.7	1676.5	1991.3	2005.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	293.9	328.8	363.8	372.5	580.5	857.8	996.5	1211.3	1640.8	1963.1	1984.2
115°	338.2	370.5	402.7	410.8	585.9	819.4	936.1	1143.0	1556.9	1867.3	1896.6
117.5°	381.9	411.2	440.5	447.8	596.7	795.3	894.6	1081.4	1454.8	1734.9	1767.4
120°	407.5	435.0	462.5	469.4	605.6	787.2	878.0	1048.7	1389.9	1645.9	1677.5
122.5°	432.3	460.2	487.9	494.9	618.4	783.0	865.2	1018.9	1326.2	1556.7	1587.8
125°	470.6	495.9	521.3	527.6	635.6	779.5	851.4	982.0	1243.0	1438.8	1467.5
127.5°	501.6	527.2	552.8	559.1	652.7	777.4	839.8	951.9	1176.0	1344.1	1368.4
130°	518.2	545.8	573.3	580.2	665.2	778.7	835.4	935.2	1134.7	1284.3	1306.7
132.5°	535.3	562.9	590.5	597.4	675.4	779.5	831.5	920.8	1099.4	1233.4	1253.4
135°	560.8	585.9	611.0	617.2	686.4	778.7	824.9	899.7	1049.3	1161.5	1178.8
137.5°	586.8	611.7	636.6	642.7	703.1	783.6	823.8	887.0	1013.5	1108.3	1122.5
140°	608.4	631.3	654.1	659.8	713.2	784.3	819.8	874.5	983.8	1065.7	1078.9
142.5°	625.0	646.1	667.4	672.6	721.7	787.2	819.8	867.8	963.8	1035.8	1047.2
145°	650.4	668.9	687.3	692.0	732.8	787.2	814.4	853.6	932.1	990.9	999.5
147.5°	676.0	693.9	711.9	716.3	749.0	792.6	814.4	845.3	907.0	953.3	960.5
150°	692.5	708.7	725.0	729.1	757.5	795.4	814.4	840.4	892.5	931.7	937.5
152.5°	709.7	722.0	734.3	737.4	763.1	797.3	814.4	836.7	881.2	914.6	918.9
155°	735.1	744.3	753.4	755.6	775.3	801.3	814.4	832.1	867.5	894.1	896.9
157.5°	754.0	762.9	771.7	773.9	787.4	805.4	814.4	828.2	855.6	876.3	878.4
160°	766.7	773.6	780.5	782.2	793.0	807.2	814.4	826.2	849.7	867.5	868.6
162.5°	779.5	784.7	789.8	791.1	798.9	809.2	814.4	824.3	844.2	859.1	860.2
165°	793.3	798.0	802.6	803.8	807.3	812.0	814.4	821.5	835.8	846.4	847.6
167.5°	806.0	808.2	810.4	811.0	813.9	817.9	819.8	824.5	833.9	840.9	841.4
170°	814.4	816.5	818.8	819.3	819.5	819.7	819.8	824.5	833.9	840.9	840.9
172.5°	818.8	819.2	819.7	819.8	819.8	819.8	819.8	823.5	830.9	836.5	836.0
175°	824.9	824.9	824.9	824.9	823.1	820.9	819.8	822.2	826.9	830.4	830.4
177.5°	824.9	824.9	824.9	824.9	823.6	821.9	821.0	822.9	826.6	829.3	828.8
180°	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	560.3	560.3
2.5°	598.1	594.5
5°	769.3	772.8
7.5°	1035.9	1034.1
10°	1288.1	1304.3
12.5°	1471.8	1475.4
15°	1583.5	1590.7
17.5°	1626.8	1628.6
20°	1628.6	1625.0
22.5°	1608.7	1605.1
25°	1585.3	1583.5
27.5°	1563.7	1565.5
30°	1554.7	1560.1
32.5°	1554.7	1563.7
35°	1558.3	1567.3
37.5°	1556.5	1567.3
40°	1549.2	1561.9
42.5°	1529.5	1538.5
45°	1498.8	1509.7
47.5°	1459.2	1466.4
50°	1408.8	1415.9
52.5°	1345.7	1347.5
55°	1270.1	1277.3
57.5°	1189.0	1190.8
60°	1098.9	1104.3
62.5°	1003.5	1003.5
65°	902.6	906.1
67.5°	798.1	807.0
70°	691.8	693.6
72.5°	587.3	587.3
75°	479.2	481.0
77.5°	376.5	376.5
80°	279.2	281.0
82.5°	192.8	196.3
85°	120.7	120.7
87.5°	55.9	50.4
90°	21.0	21.0
92.5°	84.2	67.5
95°	293.7	243.0
97.5°	703.7	607.3
100°	1013.9	899.1
102.5°	1319.1	1220.7
105°	1708.2	1655.3
107.5°	1963.0	1975.8
110°	2060.1	2115.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2068.9	2153.5
115°	2014.0	2131.4
117.5°	1897.6	2027.8
120°	1804.0	1930.4
122.5°	1712.6	1837.4
125°	1582.4	1697.3
127.5°	1465.3	1562.2
130°	1396.3	1485.9
132.5°	1333.7	1413.9
135°	1247.9	1317.0
137.5°	1179.0	1235.6
140°	1131.8	1184.7
142.5°	1092.7	1138.2
145°	1034.0	1068.5
147.5°	989.0	1017.5
150°	960.6	983.8
152.5°	936.4	953.9
155°	908.6	920.1
157.5°	886.4	894.6
160°	873.4	878.0
162.5°	864.7	869.2
165°	852.3	857.0
167.5°	843.4	845.4
170°	840.9	840.9
172.5°	834.3	832.6
175°	830.4	830.4
177.5°	826.8	824.9
180°	824.9	824.9



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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	2.43	3.27	3.42	4.28	5.63	15.62	16.47	16.61	17.48	18.82
	3H	3.13	3.89	4.13	4.91	6.27	17.46	18.22	18.46	19.24	20.60
	4H	3.43	4.15	4.44	5.17	6.54	18.11	18.83	19.13	19.85	21.22
	6H	3.68	4.34	4.70	5.37	6.75	18.54	19.21	19.57	20.24	21.62
	8H	3.74	4.38	4.78	5.42	6.80	18.67	19.30	19.70	20.35	21.72
	12H	3.76	4.37	4.80	5.40	6.81	18.74	19.34	19.77	20.38	21.78
4H	2H	9.65	10.37	10.67	11.39	12.76	15.89	16.61	16.91	17.64	19.00
	3H	11.21	11.82	12.24	12.87	14.25	17.94	18.54	18.97	19.59	20.98
	4H	11.31	11.86	12.35	12.90	14.31	18.71	19.26	19.75	20.31	21.71
	6H	11.32	11.80	12.37	12.86	14.26	19.25	19.73	20.30	20.80	22.20
	8H	11.29	11.74	12.34	12.80	14.22	19.42	19.86	20.47	20.92	22.34
	12H	11.25	11.65	12.32	12.73	14.15	19.51	19.92	20.58	20.99	22.41
8H	4H	12.75	13.20	13.80	14.26	15.68	18.77	19.22	19.82	20.27	21.69
	6H	13.00	13.37	14.07	14.47	15.88	19.40	19.77	20.48	20.87	22.29
	8H	13.01	13.34	14.10	14.42	15.86	19.62	19.95	20.71	21.03	22.47
	12H	12.98	13.27	14.07	14.35	15.82	19.77	20.06	20.86	21.14	22.61
12H	4H	12.90	13.30	13.97	14.38	15.80	18.72	19.13	19.79	20.20	21.62
	6H	13.26	13.58	14.34	14.67	16.10	19.38	19.71	20.47	20.79	22.23
	8H	13.32	13.61	14.41	14.69	16.16	19.62	19.90	20.70	20.98	22.46