

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: P936649

Luminaire Tested: SQ4-FB-050U-050D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936649
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-930-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

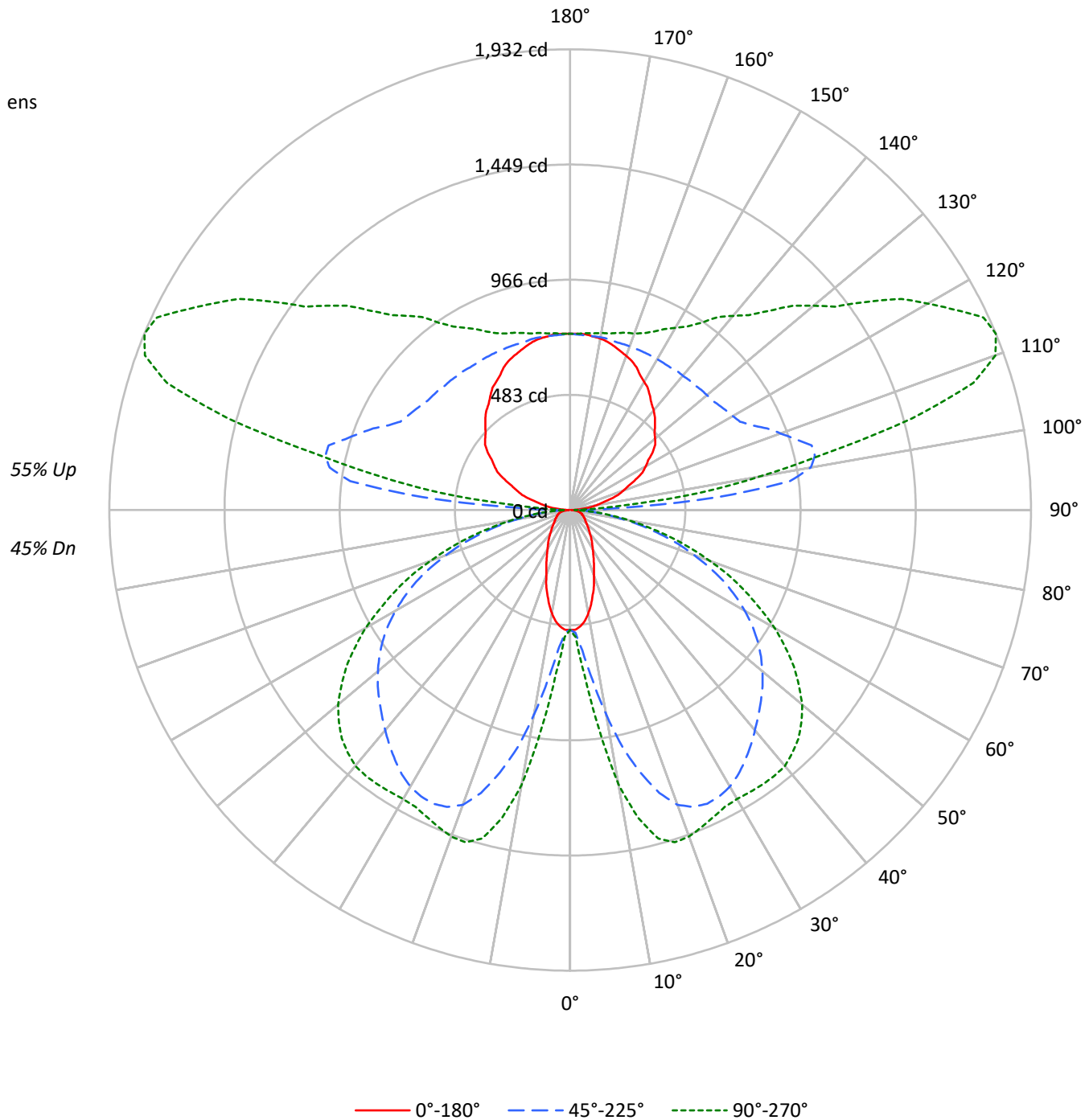
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8686.0 lumens
Efficiency: N/A
Efficacy: 101.9 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37	37	37	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1554	1554	1554
5°	1519	1797	2089
10°	1378	2620	3464
15°	1172	3424	4182
20°	954	3968	4262
25°	797	4154	4176
30°	672	4181	4168
35°	595	4113	4276
40°	518	4024	4387
45°	469	3959	4404
50°	431	3900	4331
55°	414	3815	4139
60°	424	3649	3836
65°	441	3396	3419
70°	471	2964	2889
75°	524	2419	2254
80°	578	1679	1519
85°	522	892	777

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4404 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	0.7
10°-20°	288.1	3.3
20°-30°	503.9	5.8
30°-40°	648.7	7.5
40°-50°	724.5	8.3
50°-60°	693.9	8.0
60°-70°	550.0	6.3
70°-80°	323.4	3.7
80°-90°	92.7	1.1
90°-100°	360.6	4.2
100°-110°	948.1	10.9
110°-120°	983.1	11.3
120°-130°	788.5	9.1
130°-140°	618.7	7.1
140°-150°	474.9	5.5
150°-160°	342.0	3.9
160°-170°	209.3	2.4
170°-180°	70.7	0.8
0°-30°	857.0	9.9
0°-40°	1505.7	17.3
0°-60°	2924.1	33.7
0°-90°	3890.2	44.8
90°-120°	2291.7	26.4
90°-150°	4173.9	48.1
90°-180°	4796.0	55.2
0°-180°	8686.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	490	525	591	669	693	45
15°	367	677	1141	1383	1427	102
25°	234	768	1359	1419	1420	108
35°	158	734	1280	1352	1406	99
45°	108	585	1131	1296	1354	84
55°	78	372	960	1115	1146	71
65°	61	197	713	801	813	61
75°	45	121	391	430	431	47
85°	16	37	97	107	108	17
90°	5	14	38	19	19	5
95°	48	187	621	320	218	53
105°	171	259	1048	1591	1485	181
115°	303	368	840	1675	1912	300
125°	422	473	764	1290	1522	375
135°	503	554	740	1042	1181	389
145°	583	621	730	889	958	365
155°	659	678	730	802	825	303
165°	712	721	730	759	769	201
175°	740	740	735	745	745	70
180°	740	740	740	740	740	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5
2.5°	502.5	502.5	505.7	507.3	510.5	512.2	515.4	518.7	528.4	530.0	533.2
5°	489.6	496.0	517.1	525.1	547.7	578.4	591.3	612.4	656.0	668.9	677.0
7.5°	470.2	484.7	536.4	549.3	605.9	686.7	720.6	765.9	835.4	869.2	896.7
10°	439.5	470.2	562.3	593.0	685.0	807.9	870.9	933.9	1038.9	1085.8	1103.6
12.5°	405.5	455.6	589.7	631.7	764.2	943.6	1019.6	1089.0	1208.6	1271.6	1281.3
15°	366.8	434.7	615.6	677.0	848.3	1056.7	1140.7	1226.3	1337.9	1383.1	1394.4
17.5°	332.8	418.4	639.8	704.5	912.9	1158.5	1244.1	1315.2	1405.7	1436.4	1444.5
20°	290.8	392.7	656.0	740.0	980.8	1232.8	1315.2	1370.2	1431.6	1450.9	1454.2
22.5°	260.2	365.1	665.7	753.0	1026.0	1278.1	1347.5	1391.2	1433.2	1439.6	1441.2
25°	234.3	334.4	664.1	767.5	1064.8	1305.5	1358.8	1391.2	1415.4	1418.7	1418.7
27.5°	210.1	300.6	657.6	770.7	1093.8	1312.0	1354.0	1376.6	1387.9	1394.4	1394.4
30°	189.0	268.2	641.4	764.2	1106.8	1305.5	1339.5	1350.8	1362.0	1371.8	1376.6
32.5°	172.9	237.5	617.2	751.3	1108.4	1289.4	1313.6	1320.1	1336.2	1358.8	1366.9
35°	158.4	206.9	589.7	733.5	1098.7	1263.5	1279.7	1286.2	1318.4	1352.4	1363.7
37.5°	143.8	184.2	554.2	702.9	1084.1	1232.8	1244.1	1255.4	1305.5	1345.9	1358.8
40°	129.3	164.8	512.2	668.9	1061.6	1195.7	1205.4	1223.1	1289.4	1336.2	1349.1
42.5°	118.0	148.6	466.9	633.4	1032.5	1153.7	1168.2	1194.1	1269.9	1320.1	1334.6
45°	108.2	132.5	418.4	584.9	995.3	1110.0	1131.0	1166.6	1247.4	1295.8	1308.7
47.5°	98.5	121.2	368.4	534.8	954.9	1066.4	1093.8	1134.2	1216.6	1263.5	1274.8
50°	90.5	109.9	318.3	481.5	911.2	1019.6	1051.8	1093.8	1177.9	1221.5	1236.1
52.5°	84.0	100.2	271.4	428.2	861.2	971.1	1008.2	1051.8	1131.0	1173.0	1182.7
55°	77.6	92.1	231.0	371.6	809.5	919.4	959.7	1001.7	1079.3	1114.9	1121.3
57.5°	74.4	85.6	197.1	318.3	754.6	861.2	906.4	945.2	1017.9	1045.4	1051.8
60°	69.5	80.8	171.3	273.1	694.8	806.3	845.1	883.8	945.2	967.9	972.7
62.5°	64.6	77.6	151.8	229.4	633.4	741.7	780.4	815.9	867.6	883.8	890.3
65°	61.4	74.4	137.3	197.1	570.4	673.8	712.6	743.3	785.3	801.4	804.6
67.5°	58.1	71.1	126.0	169.7	507.3	605.9	635.0	664.1	696.4	712.6	714.2
70°	53.3	67.9	116.4	150.2	442.7	528.4	552.6	583.3	609.2	617.2	622.1
72.5°	50.1	63.0	109.9	135.7	376.4	454.0	476.7	494.4	517.1	525.1	525.1
75°	45.2	56.5	103.4	121.2	308.6	371.6	391.0	408.8	426.6	429.8	424.9
77.5°	40.4	50.1	88.9	101.8	240.7	294.1	310.2	319.9	334.4	337.7	339.3
80°	34.0	43.6	69.5	79.2	174.5	216.5	227.8	235.9	248.8	248.8	252.1
82.5°	25.9	34.0	50.1	56.5	118.0	148.6	158.4	163.2	171.3	171.3	171.3
85°	16.1	21.0	32.3	37.2	71.1	90.5	96.9	98.5	105.0	106.6	106.6
87.5°	8.1	11.3	21.0	22.6	37.2	46.9	46.9	50.1	50.1	48.5	46.9
90°	5.0	8.9	12.9	13.9	21.8	32.4	37.7	33.6	25.1	18.9	18.9
92.5°	19.8	53.6	87.4	95.8	134.7	186.5	212.5	186.2	133.7	94.4	90.6
95°	47.7	109.4	171.3	186.7	331.5	524.6	621.1	554.2	420.5	320.2	308.8
97.5°	82.4	136.9	191.4	205.1	446.5	768.5	929.5	887.2	802.7	739.3	717.7
100°	109.2	158.7	208.1	220.4	488.4	845.6	1024.3	1027.4	1033.5	1038.2	1012.4
102.5°	132.1	178.2	224.3	235.8	507.6	870.0	1051.1	1104.9	1212.6	1293.4	1271.3
105°	170.8	209.8	248.8	258.6	521.8	872.7	1048.2	1168.8	1410.2	1591.3	1579.4
107.5°	210.5	246.9	283.4	292.5	524.5	833.9	988.6	1157.0	1493.7	1746.3	1749.2
110°	237.4	270.2	303.1	311.3	520.5	799.5	938.9	1127.2	1503.6	1786.0	1798.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	263.6	294.9	326.3	334.1	520.7	769.4	893.7	1086.4	1471.7	1760.7	1779.6
115°	303.4	332.3	361.2	368.4	525.5	734.9	839.6	1025.2	1396.3	1674.7	1701.1
117.5°	342.6	368.8	395.1	401.7	535.2	713.3	802.4	969.9	1304.8	1556.1	1585.2
120°	365.4	390.2	414.8	421.0	543.1	706.1	787.5	940.6	1246.6	1476.2	1504.5
122.5°	387.8	412.7	437.6	443.9	554.6	702.2	776.0	913.8	1189.5	1396.2	1424.1
125°	422.1	444.8	467.5	473.2	570.0	699.1	763.7	880.7	1114.8	1290.4	1316.2
127.5°	449.8	472.8	495.8	501.5	585.4	697.2	753.2	853.7	1054.7	1205.5	1227.3
130°	464.8	489.5	514.2	520.3	596.6	698.4	749.3	838.7	1017.7	1151.9	1172.0
132.5°	480.1	504.8	529.6	535.8	605.8	699.1	745.7	825.9	986.1	1106.2	1124.2
135°	503.0	525.5	548.0	553.6	615.7	698.4	739.8	806.9	941.1	1041.7	1057.2
137.5°	526.3	548.6	570.9	576.5	630.6	702.8	738.8	795.5	909.0	994.0	1006.7
140°	545.6	566.2	586.7	591.8	639.7	703.4	735.3	784.3	882.3	955.8	967.7
142.5°	560.6	579.5	598.6	603.3	647.3	706.0	735.3	778.3	864.4	929.0	939.2
145°	583.4	599.9	616.5	620.6	657.3	706.0	730.4	765.6	836.0	888.8	896.5
147.5°	606.3	622.3	638.5	642.5	671.8	710.9	730.4	758.1	813.5	855.0	861.5
150°	621.1	635.7	650.3	653.9	679.4	713.4	730.4	753.8	800.5	835.6	840.8
152.5°	636.5	647.5	658.6	661.4	684.4	715.1	730.4	750.4	790.3	820.3	824.2
155°	659.3	667.5	675.7	677.7	695.3	718.7	730.4	746.3	778.0	801.9	804.4
157.5°	676.3	684.2	692.1	694.1	706.2	722.4	730.4	742.8	767.4	786.0	787.8
160°	687.7	693.9	700.1	701.6	711.2	724.0	730.4	741.0	762.1	778.0	779.1
162.5°	699.1	703.7	708.4	709.5	716.5	725.8	730.4	739.3	757.1	770.6	771.5
165°	711.5	715.7	719.9	720.9	724.1	728.3	730.4	736.8	749.6	759.2	760.2
167.5°	722.9	724.9	726.9	727.4	730.0	733.5	735.3	739.5	747.9	754.2	754.7
170°	730.4	732.3	734.3	734.8	735.0	735.2	735.3	739.5	747.9	754.2	754.2
172.5°	734.3	734.7	735.2	735.3	735.3	735.3	735.3	738.6	745.3	750.2	749.8
175°	739.8	739.8	739.8	739.8	738.3	736.3	735.3	737.4	741.7	744.8	744.8
177.5°	739.8	739.8	739.8	739.8	738.7	737.2	736.4	738.0	741.3	743.8	743.3
180°	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	502.5	502.5
2.5°	536.4	533.2
5°	689.9	693.1
7.5°	929.1	927.5
10°	1155.3	1169.8
12.5°	1320.1	1323.3
15°	1420.3	1426.7
17.5°	1459.1	1460.7
20°	1460.7	1457.4
22.5°	1442.8	1439.6
25°	1421.9	1420.3
27.5°	1402.4	1404.1
30°	1394.4	1399.2
32.5°	1394.4	1402.4
35°	1397.6	1405.7
37.5°	1396.0	1405.7
40°	1389.5	1400.8
42.5°	1371.8	1379.9
45°	1344.3	1354.0
47.5°	1308.7	1315.2
50°	1263.5	1269.9
52.5°	1207.0	1208.6
55°	1139.1	1145.6
57.5°	1066.4	1068.0
60°	985.6	990.4
62.5°	900.0	900.0
65°	809.5	812.7
67.5°	715.8	723.8
70°	620.5	622.1
72.5°	526.8	526.8
75°	429.8	431.4
77.5°	337.7	337.7
80°	250.5	252.1
82.5°	172.9	176.1
85°	108.2	108.2
87.5°	50.1	45.2
90°	18.9	18.9
92.5°	75.6	60.5
95°	263.4	217.9
97.5°	631.2	544.7
100°	909.4	806.4
102.5°	1183.1	1094.8
105°	1532.0	1484.6
107.5°	1760.6	1772.1
110°	1847.7	1897.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1855.6	1931.5
115°	1806.3	1911.6
117.5°	1702.0	1818.7
120°	1618.0	1731.3
122.5°	1536.1	1647.9
125°	1419.2	1522.3
127.5°	1314.2	1401.2
130°	1252.4	1332.7
132.5°	1196.1	1268.1
135°	1119.2	1181.2
137.5°	1057.5	1108.2
140°	1015.1	1062.5
142.5°	980.1	1020.9
145°	927.4	958.3
147.5°	887.0	912.6
150°	861.5	882.3
152.5°	839.9	855.5
155°	814.9	825.2
157.5°	795.1	802.4
160°	783.3	787.5
162.5°	775.5	779.6
165°	764.5	768.6
167.5°	756.4	758.2
170°	754.2	754.2
172.5°	748.3	746.8
175°	744.8	744.8
177.5°	741.6	739.8
180°	739.8	739.8



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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	2.05	2.90	3.04	3.91	5.25	15.24	16.09	16.23	17.10	18.44
	3H	2.75	3.51	3.75	4.53	5.89	17.08	17.85	18.09	18.86	20.23
	4H	3.05	3.77	4.06	4.79	6.16	17.73	18.45	18.75	19.48	20.85
	6H	3.30	3.97	4.33	4.99	6.37	18.17	18.83	19.19	19.86	21.24
	8H	3.37	4.00	4.40	5.05	6.42	18.29	18.92	19.32	19.97	21.35
	12H	3.38	3.99	4.42	5.03	6.43	18.36	18.96	19.40	20.00	21.40
4H	2H	9.27	9.99	10.29	11.02	12.38	15.51	16.23	16.53	17.26	18.63
	3H	10.83	11.44	11.87	12.49	13.87	17.56	18.17	18.59	19.22	20.60
	4H	10.93	11.48	11.97	12.53	13.93	18.33	18.89	19.37	19.93	21.33
	6H	10.94	11.42	11.99	12.48	13.88	18.87	19.35	19.92	20.42	21.82
	8H	10.92	11.36	11.97	12.42	13.84	19.04	19.49	20.09	20.54	21.96
	12H	10.87	11.28	11.94	12.35	13.77	19.13	19.54	20.20	20.61	22.03
8H	4H	12.38	12.82	13.43	13.88	15.30	18.39	18.84	19.44	19.90	21.31
	6H	12.62	12.99	13.69	14.09	15.50	19.02	19.39	20.10	20.49	21.91
	8H	12.64	12.96	13.72	14.04	15.48	19.25	19.57	20.33	20.65	22.09
	12H	12.60	12.89	13.69	13.97	15.44	19.39	19.68	20.48	20.76	22.23
12H	4H	12.52	12.93	13.59	14.00	15.42	18.34	18.75	19.41	19.82	21.24
	6H	12.88	13.20	13.96	14.29	15.72	19.01	19.33	20.09	20.42	21.85
	8H	12.95	13.23	14.03	14.31	15.79	19.24	19.53	20.32	20.60	22.08