

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: P937524

Luminaire Tested: SQ4-FB-100U-075D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937524
REPORT IS A COMBINATION OF REPORTS P933582 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-927-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

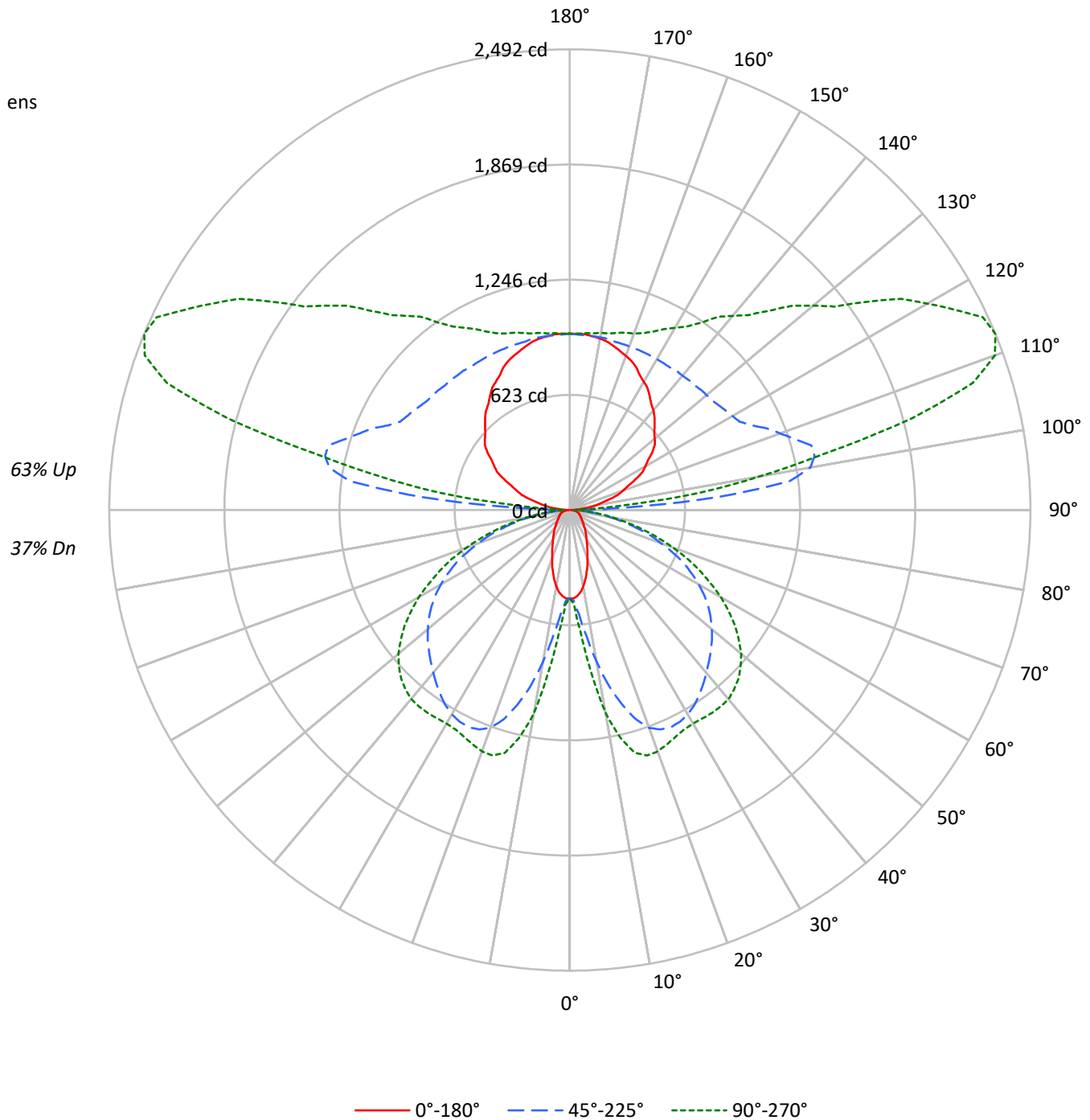
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9896.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 98.4
Input Voltage (V): NR
Input Current (A_{in}): 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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2222	2222	2222
5°	2171	2568	2987
10°	1969	3744	4952
15°	1674	4891	5980
20°	1362	5668	6094
25°	1137	5932	5970
30°	958	5969	5959
35°	847	5870	6113
40°	738	5741	6272
45°	669	5647	6297
50°	613	5562	6193
55°	587	5438	5918
60°	601	5198	5485
65°	625	4835	4889
70°	666	4217	4130
75°	738	3439	3223
80°	806	2384	2171
85°	717	1265	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6297 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	0.6
10°-20°	274.6	2.8
20°-30°	480.3	4.9
30°-40°	618.3	6.2
40°-50°	690.6	7.0
50°-60°	661.5	6.7
60°-70°	524.2	5.3
70°-80°	308.2	3.1
80°-90°	89.3	0.9
90°-100°	465.3	4.7
100°-110°	1223.1	12.4
110°-120°	1268.3	12.8
120°-130°	1017.3	10.3
130°-140°	798.2	8.1
140°-150°	612.7	6.2
150°-160°	441.2	4.5
160°-170°	270.0	2.7
170°-180°	91.2	0.9
0°-30°	816.8	8.3
0°-40°	1435.1	14.5
0°-60°	2787.2	28.2
0°-90°	3708.9	37.5
90°-120°	2956.6	29.9
90°-150°	5384.8	54.4
90°-180°	6187.0	62.5
0°-180°	9896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	479	479	479	479	479	
5°	467	500	564	638	661	43
15°	350	645	1087	1318	1360	97
25°	223	732	1295	1352	1354	103
35°	151	699	1220	1289	1340	94
45°	103	558	1078	1235	1291	80
55°	74	354	915	1063	1092	67
65°	58	188	679	764	775	58
75°	43	116	373	410	411	45
85°	15	35	92	102	103	16
90°	6	18	49	24	24	6
95°	62	241	801	413	281	68
105°	220	334	1352	2053	1915	234
115°	391	475	1083	2161	2466	387
125°	544	610	985	1665	1964	483
135°	649	714	954	1344	1524	502
145°	753	801	942	1147	1236	472
155°	851	874	942	1034	1065	391
165°	918	930	942	979	992	259
175°	954	954	949	961	961	91
180°	954	954	954	954	954	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9	478.9
2.5°	478.9	478.9	482.0	483.6	486.6	488.2	491.3	494.3	503.6	505.1	508.2
5°	466.6	472.8	492.8	500.5	522.1	551.3	563.6	583.7	625.2	637.6	645.3
7.5°	448.1	462.0	511.3	523.6	577.5	654.5	686.8	730.0	796.2	828.5	854.7
10°	418.9	448.1	535.9	565.2	653.0	770.0	830.1	890.2	990.3	1035.0	1051.9
12.5°	386.5	434.3	562.1	602.1	728.4	899.4	971.8	1038.0	1152.0	1212.1	1221.3
15°	349.6	414.3	586.7	645.3	808.5	1007.2	1087.3	1168.9	1275.2	1318.3	1329.1
17.5°	317.2	398.9	609.8	671.4	870.1	1104.3	1185.9	1253.6	1339.9	1369.1	1376.8
20°	277.2	374.2	625.2	705.3	934.9	1175.1	1253.6	1306.0	1364.5	1383.0	1386.1
22.5°	247.9	348.0	634.5	717.6	978.0	1218.2	1284.4	1326.0	1366.1	1372.2	1373.8
25°	223.3	318.8	632.9	731.5	1014.9	1244.4	1295.2	1326.0	1349.1	1352.2	1352.2
27.5°	200.2	286.4	626.8	734.6	1042.7	1250.6	1290.6	1312.2	1322.9	1329.1	1329.1
30°	180.2	255.6	611.4	728.4	1055.0	1244.4	1276.7	1287.5	1298.3	1307.5	1312.2
32.5°	164.8	226.4	588.3	716.1	1056.5	1229.0	1252.1	1258.3	1273.7	1295.2	1302.9
35°	150.9	197.1	562.1	699.2	1047.3	1204.4	1219.8	1225.9	1256.7	1289.1	1299.8
37.5°	137.1	175.6	528.2	669.9	1033.4	1175.1	1185.9	1196.7	1244.4	1282.9	1295.2
40°	123.2	157.1	488.2	637.6	1011.9	1139.7	1148.9	1165.9	1229.0	1273.7	1286.0
42.5°	112.4	141.7	445.1	603.7	984.1	1099.6	1113.5	1138.1	1210.5	1258.3	1272.1
45°	103.2	126.3	398.9	557.5	948.7	1058.1	1078.1	1112.0	1189.0	1235.2	1247.5
47.5°	93.9	115.5	351.1	509.7	910.2	1016.5	1042.7	1081.2	1159.7	1204.4	1215.1
50°	86.2	104.7	303.4	458.9	868.6	971.8	1002.6	1042.7	1122.7	1164.3	1178.2
52.5°	80.1	95.5	258.7	408.1	820.8	925.6	961.0	1002.6	1078.1	1118.1	1127.4
55°	73.9	87.8	220.2	354.2	771.5	876.3	914.8	954.9	1028.8	1062.7	1068.8
57.5°	70.8	81.6	187.9	303.4	719.2	820.8	863.9	901.0	970.3	996.5	1002.6
60°	66.2	77.0	163.2	260.3	662.2	768.5	805.4	842.4	901.0	922.5	927.2
62.5°	61.6	73.9	144.8	218.7	603.7	706.9	743.8	777.7	827.0	842.4	848.5
65°	58.5	70.8	130.9	187.9	543.6	642.2	679.1	708.4	748.4	763.8	766.9
67.5°	55.4	67.8	120.1	161.7	483.6	577.5	605.2	632.9	663.7	679.1	680.7
70°	50.8	64.7	110.9	143.2	422.0	503.6	526.7	555.9	580.6	588.3	592.9
72.5°	47.7	60.1	104.7	129.4	358.8	432.7	454.3	471.2	492.8	500.5	500.5
75°	43.1	53.9	98.6	115.5	294.1	354.2	372.7	389.6	406.6	409.6	405.0
77.5°	38.5	47.7	84.7	97.0	229.5	280.3	295.7	304.9	318.8	321.9	323.4
80°	32.3	41.6	66.2	75.5	166.3	206.4	217.1	224.8	237.2	237.2	240.2
82.5°	24.6	32.3	47.7	53.9	112.4	141.7	150.9	155.5	163.2	163.2	163.2
85°	15.4	20.0	30.8	35.4	67.8	86.2	92.4	93.9	100.1	101.6	101.6
87.5°	7.7	10.8	20.0	21.6	35.4	44.7	44.7	47.7	47.7	46.2	44.7
90°	6.4	11.6	16.6	17.9	28.2	41.8	48.7	43.3	32.4	24.3	24.3
92.5°	25.6	69.2	112.8	123.7	173.8	240.7	274.1	240.2	172.6	121.7	116.9
95°	61.5	141.2	220.9	240.9	427.7	676.8	801.3	715.1	542.5	413.2	398.6
97.5°	106.3	176.6	247.0	264.6	576.1	991.5	1199.1	1144.6	1035.6	953.8	925.9
100°	140.9	204.7	268.5	284.4	630.1	1091.0	1321.5	1325.5	1333.4	1339.4	1306.2
102.5°	170.4	229.8	289.4	304.2	654.8	1122.3	1356.0	1425.5	1564.5	1668.7	1640.2
105°	220.4	270.7	321.1	333.7	673.2	1125.9	1352.2	1507.9	1819.4	2053.0	2037.7
107.5°	271.6	318.5	365.5	377.3	676.7	1075.8	1275.4	1492.6	1927.0	2252.8	2256.5
110°	306.2	348.6	391.0	401.6	671.5	1031.3	1211.3	1454.1	1939.8	2304.1	2320.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	340.1	380.5	421.0	431.1	671.7	992.6	1153.0	1401.6	1898.6	2271.4	2295.9
115°	391.4	428.7	466.0	475.3	677.9	948.1	1083.2	1322.6	1801.5	2160.6	2194.6
117.5°	442.0	475.9	509.7	518.2	690.5	920.2	1035.1	1251.2	1683.4	2007.5	2045.1
120°	471.5	503.3	535.2	543.2	700.8	910.9	1015.9	1213.4	1608.2	1904.4	1940.9
122.5°	500.3	532.5	564.6	572.6	715.5	905.9	1001.2	1178.9	1534.5	1801.3	1837.4
125°	544.5	573.8	603.1	610.5	735.4	901.9	985.1	1136.2	1438.3	1664.8	1698.1
127.5°	580.3	609.9	639.6	647.0	755.2	899.6	971.7	1101.4	1360.7	1555.2	1583.3
130°	599.5	631.4	663.3	671.3	769.7	901.0	966.6	1082.0	1312.9	1486.1	1512.0
132.5°	619.4	651.3	683.1	691.2	781.5	901.9	962.1	1065.4	1272.1	1427.1	1450.3
135°	648.9	677.9	707.0	714.3	794.3	901.1	954.4	1041.0	1214.1	1343.9	1363.9
137.5°	679.0	707.7	736.5	743.7	813.5	906.6	953.1	1026.3	1172.6	1282.4	1298.8
140°	703.9	730.4	756.9	763.5	825.2	907.5	948.6	1011.9	1138.3	1233.1	1248.4
142.5°	723.2	747.7	772.2	778.2	835.1	910.8	948.6	1004.2	1115.2	1198.5	1211.7
145°	752.7	774.0	795.4	800.7	847.9	910.8	942.2	987.7	1078.5	1146.6	1156.5
147.5°	782.1	802.9	823.7	828.9	866.7	917.1	942.2	978.0	1049.4	1103.0	1111.3
150°	801.3	820.1	838.9	843.6	876.5	920.3	942.2	972.4	1032.8	1078.1	1084.8
152.5°	821.2	835.4	849.7	853.2	882.9	922.5	942.2	968.0	1019.6	1058.2	1063.3
155°	850.6	861.2	871.7	874.3	897.0	927.2	942.2	962.7	1003.8	1034.5	1037.8
157.5°	872.4	882.7	893.0	895.5	911.1	931.9	942.2	958.2	990.1	1014.0	1016.3
160°	887.2	895.2	903.1	905.1	917.5	934.0	942.2	956.0	983.3	1003.8	1005.2
162.5°	901.9	907.9	913.9	915.4	924.3	936.2	942.2	953.8	976.8	994.1	995.5
165°	917.9	923.3	928.7	930.1	934.2	939.6	942.2	950.5	967.0	979.4	980.8
167.5°	932.6	935.2	937.8	938.4	941.8	946.3	948.6	954.0	964.9	973.0	973.5
170°	942.2	944.8	947.4	948.0	948.3	948.5	948.6	954.0	964.9	973.0	973.0
172.5°	947.4	947.9	948.5	948.6	948.6	948.6	948.6	953.0	961.5	967.9	967.4
175°	954.4	954.4	954.4	954.4	952.5	949.9	948.6	951.3	956.7	960.8	960.8
177.5°	954.4	954.4	954.4	954.4	953.0	951.0	949.9	952.1	956.3	959.6	959.0
180°	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	478.9	478.9
2.5°	511.3	508.2
5°	657.6	660.7
7.5°	885.6	884.0
10°	1101.2	1115.0
12.5°	1258.3	1261.3
15°	1353.7	1359.9
17.5°	1390.7	1392.2
20°	1392.2	1389.2
22.5°	1375.3	1372.2
25°	1355.3	1353.7
27.5°	1336.8	1338.3
30°	1329.1	1333.7
32.5°	1329.1	1336.8
35°	1332.2	1339.9
37.5°	1330.6	1339.9
40°	1324.5	1335.3
42.5°	1307.5	1315.2
45°	1281.4	1290.6
47.5°	1247.5	1253.6
50°	1204.4	1210.5
52.5°	1150.5	1152.0
55°	1085.8	1091.9
57.5°	1016.5	1018.0
60°	939.5	944.1
62.5°	857.8	857.8
65°	771.5	774.6
67.5°	682.2	689.9
70°	591.4	592.9
72.5°	502.0	502.0
75°	409.6	411.2
77.5°	321.9	321.9
80°	238.7	240.2
82.5°	164.8	167.9
85°	103.2	103.2
87.5°	47.7	43.1
90°	24.3	24.3
92.5°	97.6	78.2
95°	339.9	281.2
97.5°	814.3	702.7
100°	1173.2	1040.3
102.5°	1526.3	1412.4
105°	1976.4	1915.2
107.5°	2271.3	2286.1
110°	2383.8	2447.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2393.8	2491.7
115°	2330.3	2466.2
117.5°	2195.7	2346.3
120°	2087.3	2233.6
122.5°	1981.7	2126.0
125°	1831.0	1964.0
127.5°	1695.5	1807.7
130°	1615.6	1719.3
132.5°	1543.2	1635.9
135°	1443.9	1523.9
137.5°	1364.2	1429.7
140°	1309.5	1370.8
142.5°	1264.3	1317.0
145°	1196.4	1236.2
147.5°	1144.3	1177.3
150°	1111.5	1138.3
152.5°	1083.5	1103.6
155°	1051.2	1064.6
157.5°	1025.7	1035.1
160°	1010.5	1015.9
162.5°	1000.5	1005.7
165°	986.2	991.6
167.5°	975.8	978.1
170°	973.0	973.0
172.5°	965.4	963.4
175°	960.8	960.8
177.5°	956.7	954.4
180°	954.4	954.4



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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	2.51	3.30	3.56	4.36	5.79	15.69	16.48	16.74	17.54	18.97
	3H	3.21	3.92	4.27	4.99	6.44	17.52	18.23	18.58	19.30	20.75
	4H	3.51	4.18	4.58	5.25	6.71	18.17	18.84	19.24	19.91	21.37
	6H	3.75	4.37	4.83	5.44	6.92	18.59	19.21	19.67	20.28	21.76
	8H	3.82	4.41	4.90	5.50	6.96	18.71	19.30	19.80	20.39	21.86
	12H	3.83	4.39	4.92	5.48	6.97	18.78	19.33	19.87	20.42	21.91
4H	2H	9.72	10.39	10.80	11.46	12.92	15.96	16.62	17.03	17.70	19.16
	3H	11.28	11.84	12.36	12.94	14.41	17.99	18.55	19.08	19.65	21.13
	4H	11.37	11.88	12.46	12.97	14.47	18.76	19.27	19.85	20.36	21.86
	6H	11.38	11.82	12.48	12.93	14.42	19.29	19.73	20.39	20.85	22.33
	8H	11.35	11.76	12.45	12.87	14.37	19.45	19.87	20.55	20.97	22.47
	12H	11.30	11.68	12.42	12.79	14.30	19.54	19.92	20.66	21.03	22.54
8H	4H	12.81	13.22	13.91	14.32	15.83	18.81	19.22	19.91	20.33	21.83
	6H	13.05	13.39	14.17	14.53	16.04	19.44	19.78	20.56	20.92	22.43
	8H	13.06	13.36	14.19	14.49	16.01	19.66	19.96	20.79	21.08	22.60
	12H	13.03	13.29	14.16	14.41	15.97	19.80	20.06	20.93	21.18	22.74
12H	4H	12.95	13.32	14.07	14.44	15.95	18.76	19.13	19.88	20.25	21.76
	6H	13.30	13.60	14.43	14.73	16.25	19.42	19.72	20.55	20.85	22.37
	8H	13.37	13.63	14.50	14.76	16.31	19.65	19.91	20.78	21.03	22.59