

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: P936609

Luminaire Tested: SQ4-FB-050U-050D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936609
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-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

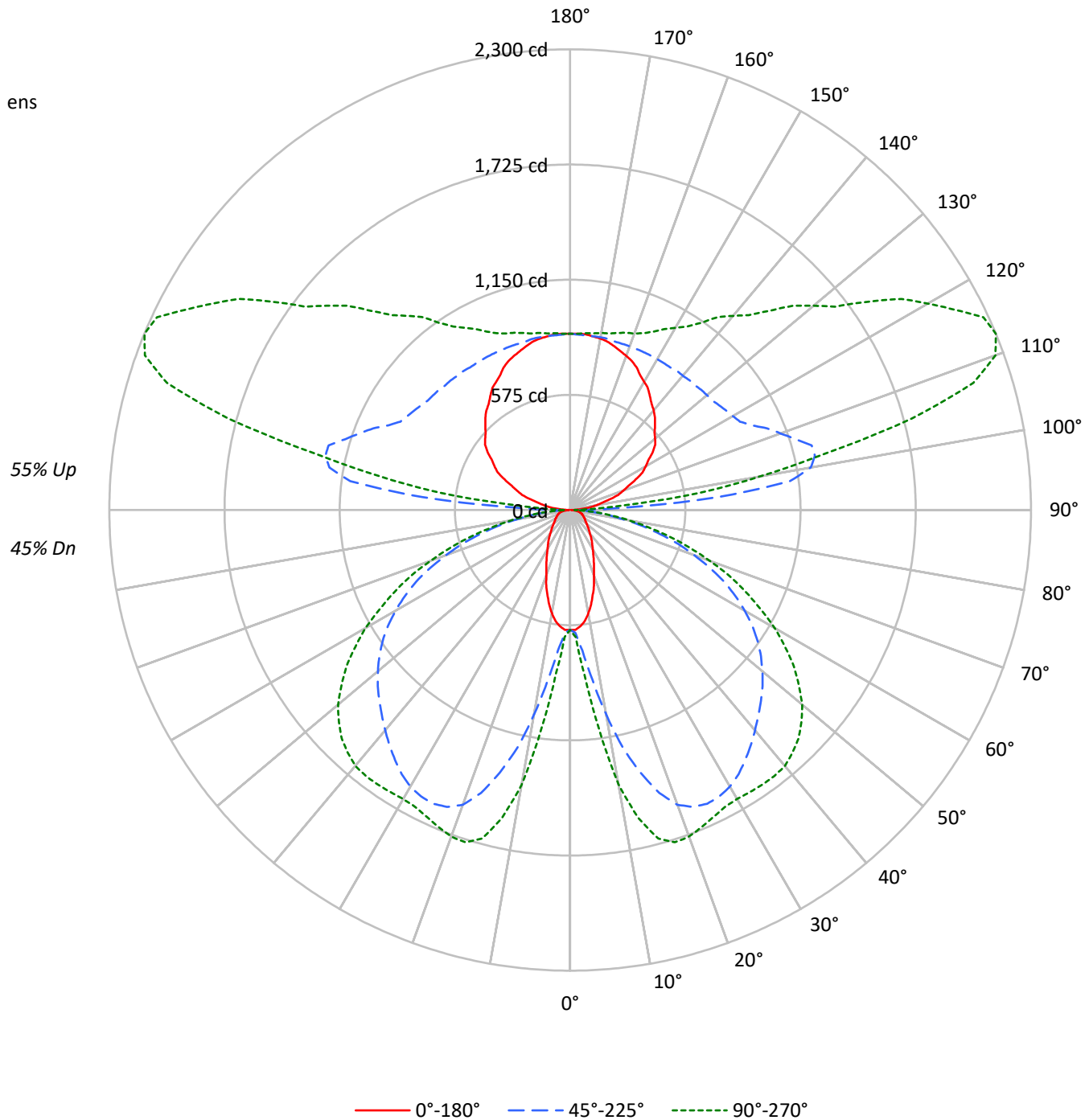
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10341.1 lumens
Efficiency: N/A
Efficacy: 121.4 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°	1851	1851	1851
5°	1809	2139	2487
10°	1641	3119	4123
15°	1395	4076	4979
20°	1136	4725	5074
25°	948	4945	4971
30°	800	4978	4962
35°	708	4896	5090
40°	617	4791	5223
45°	559	4713	5243
50°	513	4644	5156
55°	492	4542	4928
60°	504	4345	4567
65°	526	4044	4071
70°	561	3529	3439
75°	624	2879	2684
80°	687	1999	1809
85°	622	1063	926

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5243 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	0.7
10°-20°	343.0	3.3
20°-30°	599.9	5.8
30°-40°	772.3	7.5
40°-50°	862.6	8.3
50°-60°	826.2	8.0
60°-70°	654.7	6.3
70°-80°	385.0	3.7
80°-90°	110.3	1.1
90°-100°	429.3	4.2
100°-110°	1128.7	10.9
110°-120°	1170.4	11.3
120°-130°	938.8	9.1
130°-140°	736.6	7.1
140°-150°	565.4	5.5
150°-160°	407.2	3.9
160°-170°	249.1	2.4
170°-180°	84.2	0.8
0°-30°	1020.3	9.9
0°-40°	1792.5	17.3
0°-60°	3481.3	33.7
0°-90°	4631.4	44.8
90°-120°	2728.4	26.4
90°-150°	4969.2	48.1
90°-180°	5710.0	55.2
0°-180°	10341.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	583	625	704	796	825	54
15°	437	806	1358	1647	1698	122
25°	279	914	1618	1689	1691	128
35°	188	873	1524	1610	1674	118
45°	129	696	1346	1543	1612	100
55°	92	442	1143	1327	1364	84
65°	73	235	848	954	968	72
75°	54	144	466	512	514	56
85°	19	44	115	127	129	20
90°	6	16	45	22	22	6
95°	57	222	740	381	260	63
105°	203	308	1248	1894	1768	216
115°	361	439	1000	1994	2276	357
125°	502	563	909	1536	1812	446
135°	599	659	881	1240	1406	463
145°	694	739	870	1058	1141	435
155°	785	807	870	955	982	361
165°	847	858	870	904	915	239
175°	881	881	875	887	887	84
180°	881	881	881	881	881	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	598.3	598.3	602.1	604.0	607.8	609.7	613.7	617.5	629.0	631.0	634.8
5°	582.9	590.5	615.6	625.1	652.1	688.6	704.0	729.0	781.0	796.3	806.0
7.5°	559.7	577.0	638.6	654.0	721.4	817.6	857.9	911.8	994.5	1034.9	1067.6
10°	523.2	559.7	669.4	706.0	815.6	961.8	1036.8	1111.8	1236.9	1292.7	1313.8
12.5°	482.8	542.4	702.1	752.1	909.8	1123.4	1213.8	1296.5	1438.9	1513.9	1525.4
15°	436.7	517.5	732.9	806.0	1009.9	1258.0	1358.1	1460.0	1592.8	1646.6	1660.1
17.5°	396.3	498.2	761.7	838.7	1086.9	1379.2	1481.1	1565.8	1673.6	1710.1	1719.7
20°	346.3	467.5	781.0	881.0	1167.7	1467.7	1565.8	1631.2	1704.4	1727.4	1731.2
22.5°	309.7	434.7	792.5	896.4	1221.5	1521.6	1604.3	1656.3	1706.3	1713.9	1715.8
25°	279.0	398.2	790.6	913.7	1267.7	1554.3	1617.7	1656.3	1685.0	1689.0	1689.0
27.5°	250.1	357.8	782.9	917.6	1302.3	1562.0	1612.0	1638.9	1652.4	1660.1	1660.1
30°	225.0	319.3	763.7	909.8	1317.7	1554.3	1594.7	1608.2	1621.6	1633.1	1638.9
32.5°	205.8	282.8	734.8	894.4	1319.6	1535.0	1563.9	1571.6	1590.8	1617.7	1627.4
35°	188.5	246.3	702.1	873.3	1308.1	1504.3	1523.5	1531.2	1569.7	1610.1	1623.5
37.5°	171.2	219.3	659.8	836.8	1290.7	1467.7	1481.1	1494.6	1554.3	1602.4	1617.7
40°	153.9	196.2	609.7	796.3	1263.8	1423.5	1435.1	1456.2	1535.0	1590.8	1606.2
42.5°	140.4	177.0	555.9	754.1	1229.2	1373.5	1390.8	1421.6	1511.9	1571.6	1588.9
45°	128.9	157.7	498.2	696.4	1185.0	1321.5	1346.5	1388.9	1485.1	1542.7	1558.1
47.5°	117.3	144.3	438.6	636.7	1136.9	1269.6	1302.3	1350.4	1448.4	1504.3	1517.7
50°	107.7	130.8	379.0	573.2	1084.9	1213.8	1252.3	1302.3	1402.4	1454.3	1471.6
52.5°	100.0	119.3	323.1	509.7	1025.3	1156.1	1200.4	1252.3	1346.5	1396.5	1408.1
55°	92.3	109.7	275.0	442.4	963.7	1094.5	1142.6	1192.6	1285.0	1327.3	1335.0
57.5°	88.5	101.9	234.7	379.0	898.4	1025.3	1079.1	1125.3	1211.8	1244.6	1252.3
60°	82.7	96.2	203.9	325.1	827.1	959.9	1006.1	1052.2	1125.3	1152.3	1158.0
62.5°	77.0	92.3	180.8	273.1	754.1	883.0	929.1	971.4	1033.0	1052.2	1059.9
65°	73.1	88.5	163.5	234.7	679.0	802.2	848.4	884.9	934.9	954.1	957.9
67.5°	69.2	84.6	150.0	202.0	604.0	721.4	756.0	790.6	829.0	848.4	850.3
70°	63.5	80.8	138.5	178.9	527.0	629.0	657.9	694.4	725.2	734.8	740.6
72.5°	59.7	75.0	130.8	161.6	448.2	540.5	567.5	588.6	615.6	625.1	625.1
75°	53.8	67.3	123.1	144.3	367.4	442.4	465.5	486.7	507.8	511.7	505.9
77.5°	48.1	59.7	105.8	121.2	286.6	350.1	369.3	380.9	398.2	402.0	403.9
80°	40.4	51.9	82.7	94.3	207.7	257.7	271.2	280.9	296.3	296.3	300.1
82.5°	30.8	40.4	59.7	67.3	140.4	177.0	188.5	194.3	203.9	203.9	203.9
85°	19.2	25.0	38.4	44.3	84.6	107.7	115.4	117.3	125.0	127.0	127.0
87.5°	9.7	13.5	25.0	27.0	44.3	55.8	55.8	59.7	59.7	57.7	55.8
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	40.0	29.9	22.5	22.5
92.5°	23.6	63.8	104.0	114.1	160.3	222.1	253.0	221.7	159.2	112.3	107.8
95°	56.8	130.3	203.9	222.3	394.6	624.6	739.5	659.8	500.7	381.3	367.7
97.5°	98.1	163.0	227.9	244.2	531.6	914.9	1106.6	1056.3	955.6	880.2	854.5
100°	130.0	188.9	247.7	262.4	581.4	1006.8	1219.5	1223.1	1230.5	1236.0	1205.3
102.5°	157.3	212.1	267.0	280.8	604.3	1035.7	1251.4	1315.5	1443.7	1539.8	1513.5
105°	203.3	249.8	296.3	307.9	621.2	1039.0	1247.9	1391.6	1678.9	1894.5	1880.4
107.5°	250.7	294.0	337.4	348.2	624.5	992.8	1176.9	1377.4	1778.4	2079.0	2082.5
110°	282.6	321.7	360.9	370.6	619.7	951.8	1117.9	1341.9	1790.1	2126.2	2141.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.9	351.1	388.4	397.8	619.9	915.9	1064.0	1293.4	1752.1	2096.1	2118.7
115°	361.2	395.6	430.0	438.6	625.6	874.9	999.6	1220.5	1662.4	1993.8	2025.2
117.5°	407.8	439.1	470.4	478.2	637.2	849.2	955.2	1154.7	1553.4	1852.5	1887.2
120°	435.1	464.5	493.9	501.2	646.6	840.6	937.5	1119.8	1484.1	1757.4	1791.2
122.5°	461.7	491.4	521.0	528.5	660.3	836.0	923.9	1087.9	1416.1	1662.2	1695.5
125°	502.5	529.5	556.6	563.4	678.7	832.3	909.2	1048.5	1327.2	1536.3	1567.0
127.5°	535.6	562.9	590.2	597.0	696.9	830.1	896.7	1016.4	1255.7	1435.2	1461.2
130°	553.3	582.8	612.1	619.5	710.3	831.4	892.0	998.5	1211.6	1371.4	1395.3
132.5°	571.6	601.0	630.5	637.8	721.2	832.3	887.8	983.2	1174.0	1317.0	1338.4
135°	598.8	625.6	652.4	659.1	733.0	831.5	880.8	960.7	1120.4	1240.2	1258.7
137.5°	626.6	653.1	679.7	686.3	750.7	836.7	879.6	947.1	1082.2	1183.4	1198.5
140°	649.6	674.1	698.5	704.6	761.5	837.5	875.4	933.7	1050.5	1137.9	1152.1
142.5°	667.4	689.9	712.6	718.2	770.6	840.5	875.4	926.7	1029.1	1106.0	1118.1
145°	694.5	714.2	733.9	738.9	782.5	840.5	869.6	911.5	995.3	1058.1	1067.3
147.5°	721.8	740.9	760.1	764.9	799.8	846.3	869.6	902.6	968.5	1017.9	1025.6
150°	739.5	756.8	774.2	778.5	808.9	849.3	869.6	897.4	953.0	994.8	1001.0
152.5°	757.8	770.9	784.1	787.4	814.8	851.3	869.6	893.4	940.9	976.6	981.2
155°	785.0	794.7	804.5	806.9	827.8	855.6	869.6	888.5	926.3	954.7	957.7
157.5°	805.1	814.6	824.0	826.4	840.8	860.0	869.6	884.3	913.6	935.7	937.9
160°	818.7	826.1	833.4	835.3	846.7	861.9	869.6	882.2	907.3	926.3	927.5
162.5°	832.3	837.8	843.4	844.7	853.0	864.0	869.6	880.2	901.4	917.4	918.5
165°	847.1	852.1	857.1	858.3	862.0	867.1	869.6	877.2	892.4	903.8	905.0
167.5°	860.7	863.0	865.4	865.9	869.1	873.3	875.4	880.4	890.4	897.9	898.4
170°	869.6	871.9	874.3	874.8	875.0	875.3	875.4	880.4	890.4	897.9	897.9
172.5°	874.3	874.7	875.3	875.4	875.4	875.4	875.4	879.3	887.3	893.2	892.7
175°	880.8	880.8	880.8	880.8	878.9	876.6	875.4	877.9	883.0	886.7	886.7
177.5°	880.8	880.8	880.8	880.8	879.4	877.6	876.7	878.7	882.6	885.5	885.0
180°	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	598.3	598.3
2.5°	638.6	634.8
5°	821.4	825.2
7.5°	1106.1	1104.2
10°	1375.4	1392.7
12.5°	1571.6	1575.4
15°	1690.9	1698.5
17.5°	1737.1	1739.0
20°	1739.0	1735.1
22.5°	1717.7	1713.9
25°	1692.8	1690.9
27.5°	1669.7	1671.7
30°	1660.1	1665.8
32.5°	1660.1	1669.7
35°	1663.9	1673.6
37.5°	1662.0	1673.6
40°	1654.3	1667.7
42.5°	1633.1	1642.8
45°	1600.4	1612.0
47.5°	1558.1	1565.8
50°	1504.3	1511.9
52.5°	1437.0	1438.9
55°	1356.2	1363.8
57.5°	1269.6	1271.5
60°	1173.4	1179.1
62.5°	1071.5	1071.5
65°	963.7	967.6
67.5°	852.2	861.7
70°	738.7	740.6
72.5°	627.1	627.1
75°	511.7	513.6
77.5°	402.0	402.0
80°	298.2	300.1
82.5°	205.8	209.7
85°	128.9	128.9
87.5°	59.7	53.8
90°	22.5	22.5
92.5°	90.0	72.1
95°	313.6	259.5
97.5°	751.4	648.5
100°	1082.7	960.0
102.5°	1408.5	1303.4
105°	1824.0	1767.5
107.5°	2096.0	2109.7
110°	2199.8	2258.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2209.1	2299.5
115°	2150.5	2275.9
117.5°	2026.2	2165.2
120°	1926.2	2061.2
122.5°	1828.7	1961.9
125°	1689.6	1812.4
127.5°	1564.6	1668.1
130°	1491.0	1586.6
132.5°	1424.1	1509.7
135°	1332.5	1406.3
137.5°	1259.0	1319.4
140°	1208.5	1265.0
142.5°	1166.8	1215.4
145°	1104.1	1140.9
147.5°	1056.0	1086.5
150°	1025.7	1050.5
152.5°	999.9	1018.5
155°	970.1	982.5
157.5°	946.5	955.2
160°	932.6	937.5
162.5°	923.3	928.1
165°	910.1	915.1
167.5°	900.6	902.7
170°	897.9	897.9
172.5°	890.9	889.1
175°	886.7	886.7
177.5°	882.9	880.8
180°	880.8	880.8



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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	2.65	3.50	3.65	4.51	5.85	15.85	16.69	16.84	17.70	19.04
	3H	3.36	4.12	4.36	5.14	6.50	17.69	18.45	18.69	19.47	20.83
	4H	3.65	4.38	4.67	5.40	6.77	18.34	19.06	19.35	20.08	21.45
	6H	3.90	4.57	4.93	5.60	6.98	18.77	19.44	19.80	20.46	21.85
	8H	3.97	4.61	5.00	5.65	7.03	18.89	19.53	19.93	20.57	21.95
	12H	3.99	4.59	5.03	5.63	7.03	18.96	19.57	20.00	20.61	22.01
4H	2H	9.88	10.60	10.90	11.62	12.99	16.12	16.84	17.14	17.86	19.23
	3H	11.44	12.05	12.47	13.10	14.48	18.17	18.77	19.20	19.82	21.21
	4H	11.53	12.09	12.57	13.13	14.54	18.94	19.49	19.98	20.53	21.94
	6H	11.54	12.02	12.59	13.09	14.49	19.48	19.96	20.53	21.02	22.42
	8H	11.52	11.97	12.57	13.03	14.44	19.64	20.09	20.69	21.15	22.57
	12H	11.48	11.88	12.55	12.95	14.38	19.74	20.15	20.81	21.22	22.64
8H	4H	12.98	13.43	14.03	14.49	15.90	19.00	19.44	20.05	20.50	21.92
	6H	13.22	13.59	14.30	14.69	16.11	19.63	20.00	20.70	21.10	22.51
	8H	13.24	13.57	14.32	14.65	16.08	19.85	20.18	20.93	21.26	22.69
	12H	13.21	13.50	14.30	14.57	16.05	20.00	20.29	21.09	21.36	22.84
12H	4H	13.13	13.53	14.20	14.60	16.03	18.95	19.35	20.02	20.43	21.85
	6H	13.48	13.81	14.56	14.89	16.33	19.61	19.94	20.69	21.02	22.45
	8H	13.55	13.84	14.64	14.92	16.39	19.84	20.13	20.93	21.21	22.68