

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: P938458

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938458
REPORT IS A COMBINATION OF REPORTS P933631 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

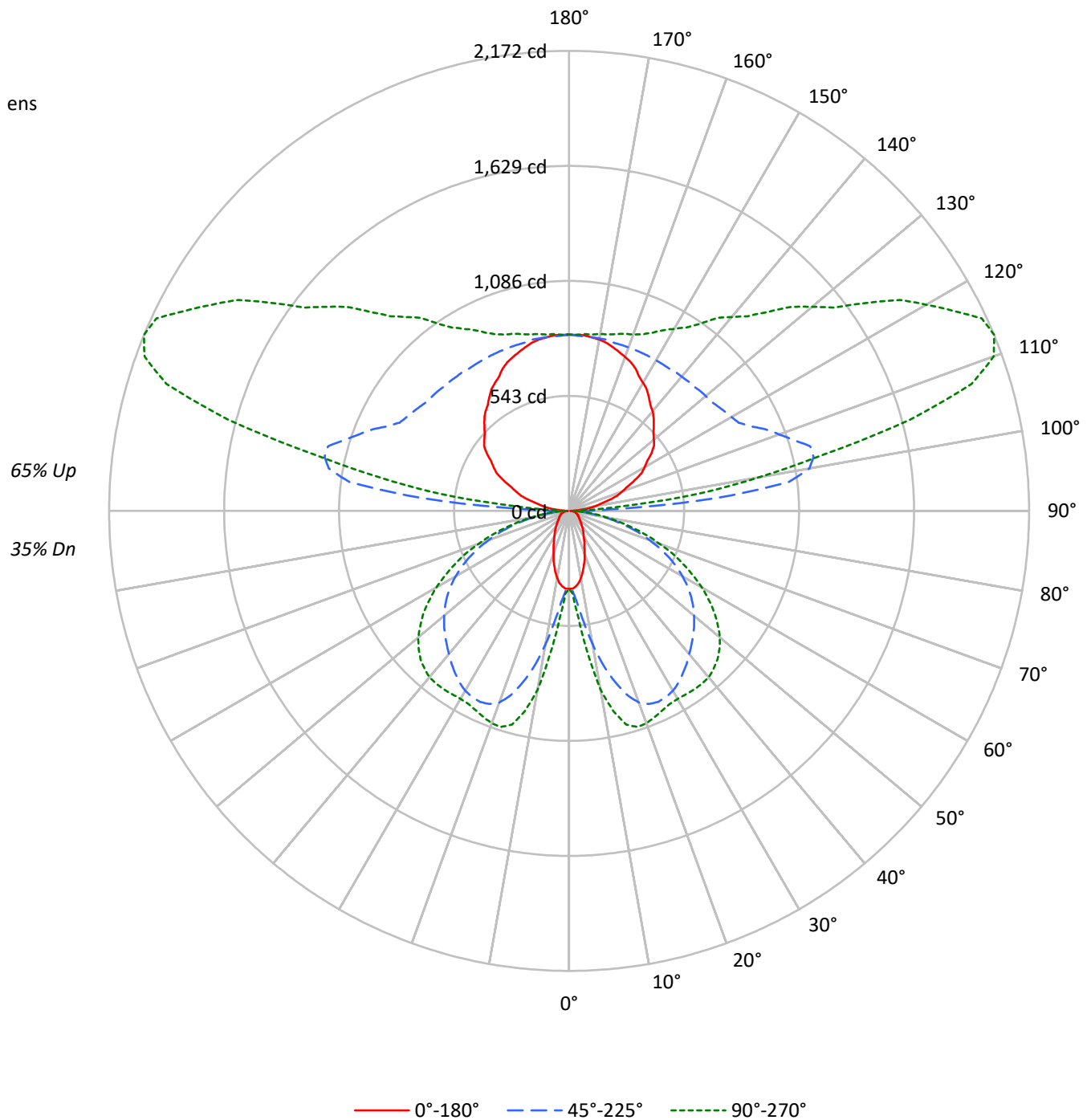
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8243.2 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 72.4
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

TEST NUMBER: P938458
CATALOG NUMBER: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-3500K

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			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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3414	3414	3414
5°	3332	3943	4590
10°	3019	5743	7608
15°	2562	7498	9186
20°	2083	8683	9361
25°	1736	9079	9172
30°	1462	9130	9155
35°	1290	8970	9392
40°	1122	8766	9636
45°	1014	8614	9674
50°	929	8476	9514
55°	887	8277	9091
60°	905	7904	8426
65°	936	7339	7510
70°	990	6388	6344
75°	1085	5195	4952
80°	1161	3590	3336
85°	977	1895	1706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9674 cd/sqm



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CATALOG NUMBER: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	0.6
10°-20°	210.9	2.6
20°-30°	368.9	4.5
30°-40°	474.9	5.8
40°-50°	530.5	6.4
50°-60°	508.1	6.2
60°-70°	402.7	4.9
70°-80°	236.8	2.9
80°-90°	69.0	0.8
90°-100°	405.6	4.9
100°-110°	1066.3	12.9
110°-120°	1105.6	13.4
120°-130°	886.8	10.8
130°-140°	695.8	8.4
140°-150°	534.1	6.5
150°-160°	384.6	4.7
160°-170°	235.3	2.9
170°-180°	79.5	1.0
0°-30°	627.5	7.6
0°-40°	1102.4	13.4
0°-60°	2141.0	26.0
0°-90°	2849.4	34.6
90°-120°	2577.5	31.3
90°-150°	4694.3	56.9
90°-180°	5394.0	65.4
0°-180°	8243.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	368	368	368	368	368	
5°	358	384	433	490	508	33
15°	268	496	835	1013	1045	75
25°	172	562	995	1039	1040	79
35°	116	537	937	990	1029	72
45°	79	428	828	949	991	61
55°	57	272	703	816	839	52
65°	45	144	522	587	595	45
75°	33	89	286	315	316	35
85°	12	27	71	78	79	13
90°	6	16	42	21	21	5
95°	54	210	699	360	245	60
105°	192	291	1179	1790	1670	204
115°	341	414	944	1884	2150	337
125°	475	532	859	1451	1712	421
135°	566	623	832	1172	1328	438
145°	656	698	821	1000	1078	411
155°	742	762	821	902	928	341
165°	800	811	821	854	864	226
175°	832	832	827	838	838	79
180°	832	832	832	832	832	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9
2.5°	367.9	367.9	370.3	371.5	373.8	375.0	377.4	379.7	386.9	388.0	390.4
5°	358.5	363.2	378.5	384.4	401.0	423.5	433.0	448.4	480.3	489.7	495.6
7.5°	344.2	354.9	392.8	402.3	443.6	502.8	527.6	560.7	611.6	636.5	656.5
10°	321.8	344.2	411.7	434.1	501.6	591.5	637.6	683.7	760.7	794.9	808.0
12.5°	297.0	333.6	431.8	462.5	559.6	690.9	746.5	797.4	884.9	931.0	938.1
15°	268.5	318.2	450.7	495.6	621.1	773.7	835.2	897.9	979.6	1012.7	1020.9
17.5°	243.7	306.4	468.4	515.8	668.4	848.2	910.9	963.0	1029.3	1051.7	1057.6
20°	212.9	287.5	480.3	541.8	718.1	902.7	963.0	1003.2	1048.1	1062.4	1064.7
22.5°	190.4	267.3	487.4	551.2	751.2	935.8	986.6	1018.6	1049.3	1054.1	1055.2
25°	171.5	244.9	486.2	561.9	779.6	955.8	994.9	1018.6	1036.3	1038.7	1038.7
27.5°	153.8	220.1	481.5	564.3	800.9	960.6	991.4	1007.9	1016.2	1020.9	1020.9
30°	138.4	196.3	469.7	559.6	810.3	955.8	980.7	989.0	997.3	1004.4	1007.9
32.5°	126.6	173.9	452.0	550.1	811.5	944.0	961.7	966.5	978.3	994.9	1000.9
35°	115.9	151.4	431.8	537.1	804.4	925.1	936.9	941.7	965.3	990.2	998.5
37.5°	105.3	134.8	405.8	514.6	793.8	902.7	910.9	919.2	955.8	985.5	994.9
40°	94.6	120.7	375.0	489.7	777.2	875.4	882.5	895.6	944.0	978.3	987.8
42.5°	86.4	108.9	341.9	463.8	755.9	844.6	855.3	874.3	929.9	966.5	977.1
45°	79.2	97.0	306.4	428.2	728.7	812.8	828.1	854.1	913.3	948.8	958.3
47.5°	72.2	88.7	269.8	391.6	699.1	780.8	800.9	830.5	890.8	925.1	933.4
50°	66.3	80.5	233.0	352.6	667.2	746.5	770.1	800.9	862.5	894.3	905.0
52.5°	61.5	73.3	198.8	313.5	630.6	711.0	738.2	770.1	828.1	858.9	865.9
55°	56.8	67.4	169.2	272.1	592.7	673.1	702.7	733.4	790.3	816.3	821.0
57.5°	54.4	62.7	144.3	233.0	552.5	630.6	663.7	692.1	745.3	765.4	770.1
60°	50.9	59.2	125.4	199.9	508.7	590.3	618.8	647.1	692.1	708.6	712.1
62.5°	47.4	56.8	111.2	168.0	463.8	543.0	571.4	597.4	635.3	647.1	651.9
65°	44.9	54.4	100.5	144.3	417.6	493.3	521.7	544.2	575.0	586.8	589.1
67.5°	42.6	52.0	92.3	124.2	371.5	443.6	464.9	486.2	509.9	521.7	522.9
70°	39.0	49.7	85.1	110.0	324.1	386.9	404.6	427.1	446.0	452.0	455.4
72.5°	36.7	46.1	80.5	99.4	275.7	332.4	349.0	362.0	378.5	384.4	384.4
75°	33.1	41.4	75.7	88.7	226.0	272.1	286.3	299.3	312.3	314.7	311.1
77.5°	29.5	36.7	65.1	74.5	176.3	215.3	227.1	234.2	244.9	247.3	248.4
80°	24.8	32.0	50.9	57.9	127.8	158.6	166.8	172.7	182.2	182.2	184.5
82.5°	18.9	24.8	36.7	41.4	86.4	108.9	115.9	119.5	125.4	125.4	125.4
85°	11.8	15.4	23.6	27.2	52.0	66.3	71.0	72.2	76.9	78.1	78.1
87.5°	5.9	8.2	15.4	16.6	27.2	34.3	34.3	36.7	36.7	35.5	34.3
90°	5.6	10.0	14.5	15.7	24.6	36.5	42.4	37.7	28.3	21.2	21.2
92.5°	22.3	60.3	98.3	107.8	151.5	209.8	239.0	209.4	150.4	106.1	101.9
95°	53.6	123.1	192.6	210.0	372.8	590.0	698.6	623.4	473.0	360.2	347.4
97.5°	92.7	154.0	215.3	230.6	502.2	864.3	1045.4	997.8	902.7	831.5	807.1
100°	122.8	178.4	234.0	247.9	549.3	951.1	1152.0	1155.5	1162.5	1167.7	1138.7
102.5°	148.5	200.5	252.3	265.3	570.9	978.4	1182.2	1242.7	1363.8	1454.7	1429.9
105°	192.1	236.1	280.0	291.0	586.9	981.4	1178.8	1314.5	1586.0	1789.7	1776.4
107.5°	236.8	277.7	318.7	328.9	589.9	937.8	1111.8	1301.2	1679.9	1964.0	1967.2
110°	266.9	303.9	340.9	350.2	585.4	899.1	1055.9	1267.7	1691.1	2008.6	2022.5



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CATALOG NUMBER: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	296.5	331.8	367.1	375.9	585.6	865.3	1005.2	1221.8	1655.2	1980.2	2001.5
115°	341.2	373.7	406.2	414.4	591.0	826.6	944.3	1153.0	1570.5	1883.6	1913.2
117.5°	385.3	414.9	444.4	451.8	602.0	802.3	902.4	1090.8	1467.5	1750.1	1782.9
120°	410.9	438.8	466.5	473.5	610.9	794.1	885.6	1057.7	1402.0	1660.2	1692.1
122.5°	436.1	464.1	492.2	499.2	623.8	789.8	872.8	1027.8	1337.8	1570.3	1601.7
125°	474.7	500.2	525.8	532.2	641.0	786.3	858.9	990.5	1253.8	1451.3	1480.3
127.5°	505.9	531.7	557.5	564.0	658.3	784.2	847.1	960.2	1186.3	1355.9	1380.3
130°	522.7	550.4	578.2	585.2	671.0	785.5	842.7	943.3	1144.6	1295.5	1318.1
132.5°	540.0	567.8	595.6	602.5	681.2	786.3	838.7	928.8	1109.0	1244.1	1264.4
135°	565.7	591.0	616.2	622.6	692.4	785.5	832.0	907.5	1058.3	1171.5	1189.0
137.5°	591.9	617.0	642.0	648.3	709.2	790.4	830.9	894.7	1022.3	1118.0	1132.2
140°	613.7	636.8	659.9	665.7	719.5	791.2	827.0	882.1	992.3	1074.9	1088.3
142.5°	630.5	651.8	673.1	678.5	728.0	794.0	827.0	875.4	972.2	1044.8	1056.3
145°	656.2	674.8	693.3	698.0	739.2	794.1	821.4	861.0	940.2	999.5	1008.2
147.5°	681.8	700.0	718.0	722.6	755.6	799.5	821.4	852.6	914.8	961.6	968.7
150°	698.6	715.0	731.3	735.4	764.1	802.3	821.4	847.8	900.3	939.8	945.6
152.5°	715.9	728.3	740.7	743.8	769.7	804.2	821.4	843.9	888.9	922.5	926.9
155°	741.6	750.8	759.9	762.3	782.0	808.3	821.4	839.4	875.1	901.8	904.8
157.5°	760.6	769.5	778.4	780.6	794.2	812.4	821.4	835.3	863.1	883.9	886.0
160°	773.4	780.4	787.3	789.0	799.9	814.3	821.4	833.4	857.2	875.0	876.2
162.5°	786.3	791.5	796.6	798.0	805.8	816.3	821.4	831.5	851.6	866.7	867.7
165°	800.2	804.9	809.6	810.8	814.4	819.1	821.4	828.6	843.0	853.8	854.9
167.5°	813.0	815.3	817.5	818.0	821.0	825.0	827.0	831.7	841.1	848.2	848.8
170°	821.4	823.7	825.9	826.5	826.6	826.9	827.0	831.7	841.1	848.2	848.2
172.5°	825.9	826.4	826.9	827.0	827.0	827.0	827.0	830.8	838.2	843.7	843.3
175°	832.0	832.0	832.0	832.0	830.3	828.1	827.0	829.3	834.1	837.7	837.7
177.5°	832.0	832.0	832.0	832.0	830.8	829.1	828.2	830.0	833.7	836.5	836.0
180°	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	367.9	367.9
2.5°	392.8	390.4
5°	505.1	507.6
7.5°	680.3	679.0
10°	845.9	856.5
12.5°	966.5	968.9
15°	1039.9	1044.6
17.5°	1068.3	1069.5
20°	1069.5	1067.0
22.5°	1056.5	1054.1
25°	1041.1	1039.9
27.5°	1026.8	1028.0
30°	1020.9	1024.5
32.5°	1020.9	1026.8
35°	1023.3	1029.3
37.5°	1022.1	1029.3
40°	1017.4	1025.7
42.5°	1004.4	1010.3
45°	984.3	991.4
47.5°	958.3	963.0
50°	925.1	929.9
52.5°	883.7	884.9
55°	834.0	838.7
57.5°	780.8	782.0
60°	721.6	725.2
62.5°	658.9	658.9
65°	592.7	595.0
67.5°	524.1	530.0
70°	454.3	455.4
72.5°	385.7	385.7
75°	314.7	315.9
77.5°	247.3	247.3
80°	183.4	184.5
82.5°	126.6	128.9
85°	79.2	79.2
87.5°	36.7	33.1
90°	21.2	21.2
92.5°	85.0	68.1
95°	296.3	245.1
97.5°	709.9	612.6
100°	1022.8	906.9
102.5°	1330.6	1231.3
105°	1723.0	1669.7
107.5°	1980.1	1993.0
110°	2078.1	2133.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2086.9	2172.2
115°	2031.6	2149.9
117.5°	1914.2	2045.4
120°	1819.6	1947.2
122.5°	1727.6	1853.4
125°	1596.2	1712.1
127.5°	1478.1	1575.8
130°	1408.4	1498.8
132.5°	1345.2	1426.1
135°	1258.7	1328.5
137.5°	1189.3	1246.4
140°	1141.6	1195.0
142.5°	1102.2	1148.1
145°	1043.0	1077.8
147.5°	997.6	1026.4
150°	969.0	992.3
152.5°	944.6	962.1
155°	916.4	928.1
157.5°	894.1	902.4
160°	880.9	885.6
162.5°	872.2	876.7
165°	859.7	864.4
167.5°	850.7	852.7
170°	848.2	848.2
172.5°	841.6	839.9
175°	837.7	837.7
177.5°	834.0	832.0
180°	832.0	832.0



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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	3.65	4.41	4.72	5.49	6.96	16.79	17.55	17.86	18.63	20.10
	3H	4.35	5.03	5.43	6.12	7.61	18.60	19.29	19.69	20.37	21.87
	4H	4.64	5.29	5.73	6.38	7.87	19.23	19.88	20.33	20.97	22.47
	6H	4.89	5.48	5.99	6.58	8.08	19.65	20.25	20.75	21.34	22.85
	8H	4.95	5.52	6.06	6.63	8.13	19.76	20.33	20.87	21.44	22.94
	12H	4.96	5.51	6.08	6.61	8.13	19.82	20.36	20.93	21.46	22.99
4H	2H	10.83	11.48	11.93	12.57	14.06	17.05	17.70	18.15	18.79	20.29
	3H	12.39	12.93	13.50	14.05	15.56	19.07	19.62	20.18	20.73	22.24
	4H	12.48	12.98	13.59	14.08	15.61	19.83	20.32	20.94	21.43	22.96
	6H	12.48	12.91	13.60	14.04	15.56	20.35	20.77	21.47	21.90	23.43
	8H	12.46	12.86	13.58	13.98	15.52	20.50	20.90	21.62	22.02	23.56
	12H	12.41	12.77	13.55	13.91	15.45	20.58	20.94	21.72	22.07	23.62
8H	4H	13.90	14.31	15.02	15.43	16.96	19.88	20.28	21.00	21.40	22.94
	6H	14.14	14.47	15.28	15.64	17.17	20.49	20.82	21.63	21.98	23.52
	8H	14.16	14.45	15.31	15.59	17.15	20.70	20.99	21.85	22.13	23.69
	12H	14.12	14.38	15.27	15.52	17.11	20.83	21.09	21.98	22.23	23.82
12H	4H	14.04	14.40	15.18	15.54	17.08	19.83	20.19	20.96	21.32	22.87
	6H	14.40	14.69	15.54	15.83	17.38	20.47	20.76	21.62	21.90	23.46
	8H	14.46	14.72	15.61	15.85	17.45	20.69	20.94	21.84	22.08	23.67