

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: P937586

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-4-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937586
REPORT IS A COMBINATION OF REPORTS P933566 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-4-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

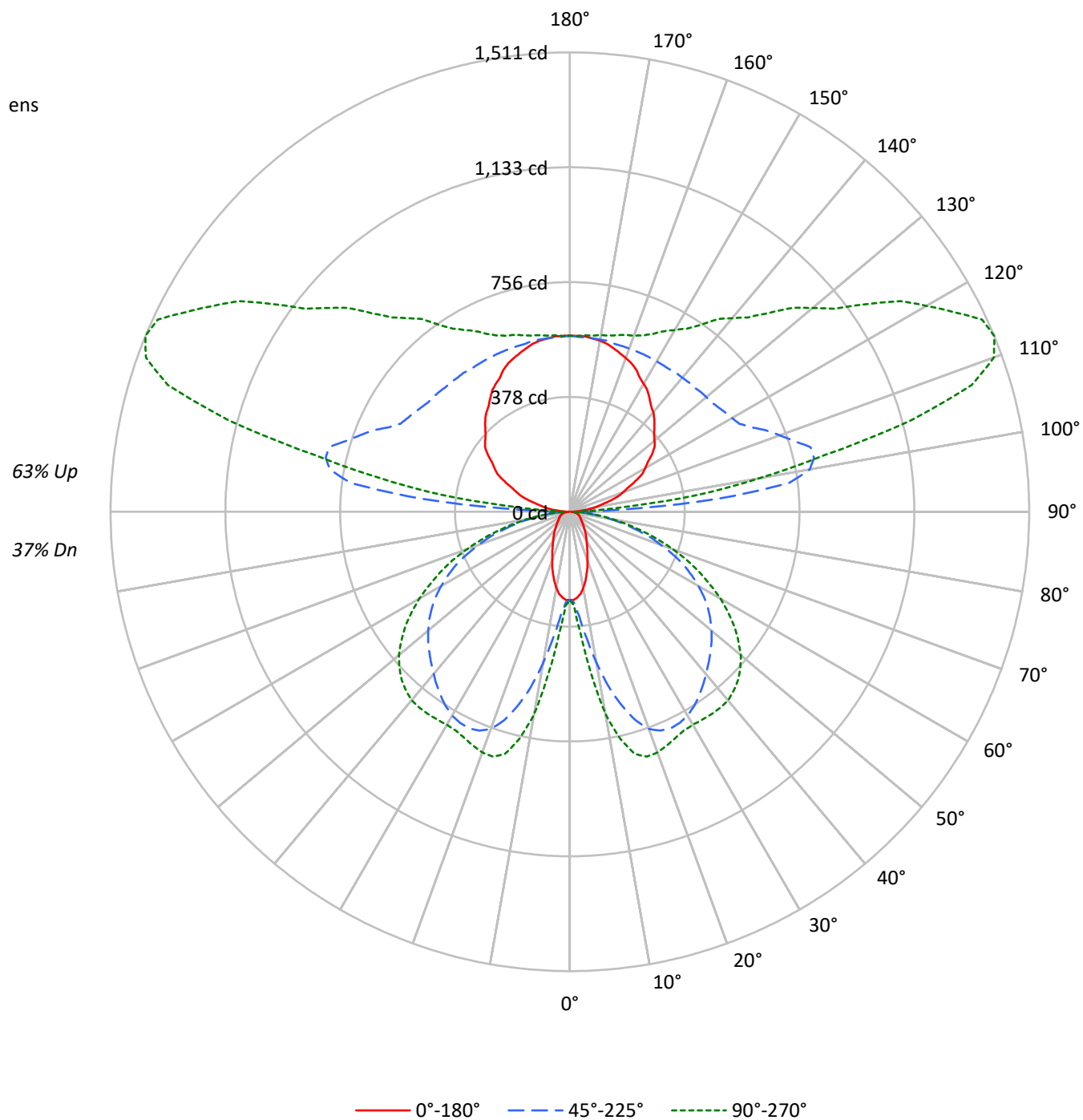
Lumens per Lamp: N/A
Luminaire Lumens: 6001.8 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 49.2
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: P937586

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-4-5000K

Luminous Intensity Polar Plot



TEST NUMBER: P937586

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2696	2696	2696
5°	2630	3113	3623
10°	2383	4534	6006
15°	2023	5920	7252
20°	1645	6855	7392
25°	1370	7168	7241
30°	1154	7208	7227
35°	1019	7082	7415
40°	886	6922	7608
45°	801	6801	7638
50°	733	6692	7511
55°	700	6535	7178
60°	715	6240	6652
65°	740	5794	5930
70°	782	5043	5010
75°	859	4101	3910
80°	917	2834	2634
85°	770	1495	1349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7638 cd/sqm

TEST NUMBER: P937586

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-4-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.6	0.6
10°-20°	166.5	2.8
20°-30°	291.3	4.9
30°-40°	375.0	6.2
40°-50°	418.8	7.0
50°-60°	401.1	6.7
60°-70°	317.9	5.3
70°-80°	186.9	3.1
80°-90°	54.1	0.9
90°-100°	282.1	4.7
100°-110°	741.8	12.4
110°-120°	769.2	12.8
120°-130°	617.0	10.3
130°-140°	484.1	8.1
140°-150°	371.6	6.2
150°-160°	267.6	4.5
160°-170°	163.7	2.7
170°-180°	55.3	0.9
0°-30°	495.4	8.3
0°-40°	870.4	14.5
0°-60°	1690.3	28.2
0°-90°	2249.3	37.5
90°-120°	1793.2	29.9
90°-150°	3265.8	54.4
90°-180°	3752.0	62.5
0°-180°	6001.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	290	290	290	290	290	
5°	283	304	342	387	401	26
15°	212	391	659	800	825	59
25°	135	444	786	820	821	62
35°	92	424	740	782	813	57
45°	63	338	654	749	783	48
55°	45	215	555	644	662	41
65°	36	114	412	463	470	35
75°	26	70	226	248	249	27
85°	9	22	56	62	63	10
90°	4	11	30	15	15	4
95°	37	146	486	251	170	41
105°	134	202	820	1245	1162	142
115°	237	288	657	1310	1496	234
125°	330	370	598	1010	1191	293
135°	394	433	579	815	924	304
145°	456	486	572	695	750	286
155°	516	530	572	627	646	237
165°	557	564	572	594	601	157
175°	579	579	575	583	583	55
180°	579	579	579	579	579	

TEST NUMBER: P937586

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-4-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5	290.5
2.5°	290.5	290.5	292.3	293.3	295.1	296.1	297.9	299.8	305.4	306.4	308.2
5°	283.0	286.7	298.9	303.6	316.6	334.4	341.8	354.0	379.2	386.7	391.3
7.5°	271.8	280.2	310.1	317.6	350.2	397.0	416.6	442.7	482.9	502.5	518.4
10°	254.0	271.8	325.0	342.8	396.0	467.0	503.4	539.9	600.6	627.6	637.9
12.5°	234.4	263.4	340.9	365.2	441.8	545.5	589.4	629.5	698.6	735.1	740.7
15°	212.0	251.2	355.9	391.3	490.4	610.8	659.4	708.9	773.4	799.5	806.0
17.5°	192.4	241.9	369.9	407.2	527.7	669.7	719.2	760.3	812.6	830.3	835.0
20°	168.1	227.0	379.2	427.8	566.9	712.6	760.3	792.0	827.5	838.7	840.6
22.5°	150.4	211.1	384.8	435.2	593.1	738.8	779.0	804.2	828.5	832.2	833.1
25°	135.4	193.3	383.9	443.6	615.5	754.7	785.5	804.2	818.2	820.1	820.1
27.5°	121.4	173.7	380.1	445.5	632.3	758.4	782.7	795.8	802.3	806.0	806.0
30°	109.3	155.0	370.8	441.8	639.8	754.7	774.3	780.8	787.4	793.0	795.8
32.5°	99.9	137.3	356.8	434.3	640.7	745.3	759.3	763.1	772.4	785.5	790.2
35°	91.5	119.6	340.9	424.0	635.1	730.4	739.7	743.5	762.1	781.8	788.3
37.5°	83.1	106.5	320.4	406.3	626.7	712.6	719.2	725.7	754.7	778.0	785.5
40°	74.7	95.3	296.1	386.7	613.6	691.2	696.8	707.0	745.3	772.4	779.9
42.5°	68.2	85.9	269.9	366.1	596.8	666.9	675.3	690.2	734.1	763.1	771.5
45°	62.6	76.6	241.9	338.1	575.3	641.7	653.8	674.3	721.0	749.1	756.5
47.5°	57.0	70.0	213.0	309.2	552.0	616.4	632.3	655.7	703.3	730.4	736.9
50°	52.3	63.5	184.0	278.3	526.8	589.4	608.0	632.3	680.9	706.1	714.5
52.5°	48.6	57.9	156.9	247.5	497.8	561.3	582.8	608.0	653.8	678.1	683.7
55°	44.8	53.2	133.6	214.8	467.9	531.4	554.8	579.1	623.9	644.5	648.2
57.5°	43.0	49.5	113.9	184.0	436.2	497.8	524.0	546.4	588.4	604.3	608.0
60°	40.2	46.7	99.0	157.8	401.6	466.1	488.5	510.9	546.4	559.5	562.3
62.5°	37.4	44.8	87.8	132.6	366.1	428.7	451.1	471.7	501.6	510.9	514.6
65°	35.5	43.0	79.4	113.9	329.7	389.5	411.9	429.6	453.9	463.3	465.1
67.5°	33.6	41.1	72.9	98.1	293.3	350.2	367.1	383.9	402.6	411.9	412.8
70°	30.8	39.2	67.2	86.9	255.9	305.4	319.4	337.2	352.1	356.8	359.6
72.5°	29.0	36.4	63.5	78.5	217.6	262.5	275.5	285.8	298.9	303.6	303.6
75°	26.2	32.7	59.8	70.0	178.4	214.8	226.0	236.3	246.6	248.4	245.6
77.5°	23.4	29.0	51.4	58.8	139.2	170.0	179.3	184.9	193.3	195.2	196.1
80°	19.6	25.2	40.2	45.8	100.9	125.2	131.7	136.4	143.8	143.8	145.7
82.5°	14.9	19.6	29.0	32.7	68.2	85.9	91.5	94.3	99.0	99.0	99.0
85°	9.3	12.1	18.7	21.5	41.1	52.3	56.0	57.0	60.7	61.6	61.6
87.5°	4.7	6.5	12.1	13.1	21.5	27.1	27.1	29.0	29.0	28.0	27.1
90°	3.9	7.0	10.1	10.8	17.1	25.4	29.5	26.2	19.7	14.8	14.8
92.5°	15.5	41.9	68.4	75.0	105.4	146.0	166.3	145.7	104.6	73.8	70.9
95°	37.3	85.6	134.0	146.1	259.4	410.4	486.0	433.7	329.0	250.6	241.7
97.5°	64.4	107.1	149.8	160.5	349.4	601.3	727.2	694.1	628.0	578.4	561.5
100°	85.5	124.1	162.8	172.5	382.2	661.7	801.5	803.9	808.7	812.3	792.1
102.5°	103.3	139.4	175.5	184.6	397.2	680.7	822.5	864.6	948.9	1012.0	994.7
105°	133.7	164.2	194.7	202.4	408.3	682.8	820.1	914.6	1103.4	1245.1	1235.9
107.5°	164.8	193.2	221.7	228.8	410.4	652.4	773.4	905.2	1168.7	1366.3	1368.6
110°	185.7	211.5	237.1	243.6	407.2	625.5	734.6	881.9	1176.5	1397.4	1407.1

TEST NUMBER: P937586

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-4-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	206.3	230.8	255.3	261.4	407.4	602.0	699.3	850.0	1151.4	1377.6	1392.4
115°	237.3	259.9	282.5	288.2	411.1	575.1	657.0	802.2	1092.6	1310.4	1331.0
117.5°	268.1	288.6	309.2	314.3	418.8	558.2	627.8	758.9	1021.0	1217.6	1240.4
120°	285.9	305.2	324.6	329.4	425.0	552.5	616.2	735.9	975.4	1155.0	1177.2
122.5°	303.5	323.0	342.5	347.4	433.9	549.5	607.2	715.0	930.6	1092.4	1114.3
125°	330.3	348.0	365.8	370.2	446.0	547.0	597.5	689.1	872.3	1009.7	1029.8
127.5°	351.9	369.9	387.9	392.4	458.0	545.5	589.4	668.0	825.3	943.2	960.2
130°	363.6	382.9	402.3	407.1	466.8	546.5	586.3	656.3	796.3	901.3	917.0
132.5°	375.7	395.0	414.3	419.2	473.9	547.0	583.5	646.1	771.5	865.5	879.6
135°	393.6	411.1	428.8	433.2	481.8	546.5	578.9	631.4	736.3	815.0	827.2
137.5°	411.8	429.3	446.6	451.0	493.3	549.8	578.1	622.4	711.1	777.7	787.6
140°	426.9	443.0	459.1	463.1	500.5	550.4	575.3	613.6	690.3	747.9	757.1
142.5°	438.6	453.5	468.3	472.0	506.5	552.4	575.3	609.0	676.3	726.8	734.9
145°	456.4	469.4	482.3	485.6	514.3	552.5	571.5	599.1	654.1	695.4	701.4
147.5°	474.4	487.0	499.5	502.7	525.7	556.2	571.5	593.2	636.5	669.0	674.1
150°	486.0	497.4	508.7	511.6	531.6	558.3	571.5	589.8	626.3	653.8	657.8
152.5°	498.0	506.6	515.3	517.4	535.5	559.5	571.5	587.1	618.3	641.8	644.8
155°	515.9	522.3	528.7	530.3	544.1	562.4	571.5	583.9	608.8	627.4	629.4
157.5°	529.1	535.4	541.5	543.1	552.6	565.2	571.5	581.1	600.5	614.9	616.3
160°	538.1	542.9	547.7	548.9	556.5	566.5	571.5	579.8	596.4	608.8	609.6
162.5°	547.0	550.6	554.2	555.2	560.6	567.9	571.5	578.5	592.4	602.9	603.6
165°	556.7	559.9	563.2	564.0	566.6	569.8	571.5	576.6	586.6	594.0	594.9
167.5°	565.6	567.2	568.8	569.2	571.2	573.9	575.3	578.6	585.2	590.1	590.5
170°	571.5	573.0	574.6	575.0	575.1	575.3	575.3	578.6	585.2	590.1	590.1
172.5°	574.6	575.0	575.3	575.3	575.3	575.3	575.3	578.0	583.1	587.0	586.7
175°	578.9	578.9	578.9	578.9	577.7	576.1	575.3	577.0	580.3	582.7	582.7
177.5°	578.9	578.9	578.9	578.9	578.0	576.7	576.1	577.4	580.0	582.0	581.6
180°	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9	578.9

TEST NUMBER: P937586

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-4-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	290.5	290.5
2.5°	310.1	308.2
5°	398.8	400.7
7.5°	537.1	536.1
10°	667.8	676.2
12.5°	763.1	764.9
15°	821.0	824.7
17.5°	843.4	844.3
20°	844.3	842.5
22.5°	834.1	832.2
25°	821.9	821.0
27.5°	810.7	811.6
30°	806.0	808.8
32.5°	806.0	810.7
35°	807.9	812.6
37.5°	807.0	812.6
40°	803.2	809.8
42.5°	793.0	797.6
45°	777.1	782.7
47.5°	756.5	760.3
50°	730.4	734.1
52.5°	697.7	698.6
55°	658.5	662.2
57.5°	616.4	617.4
60°	569.7	572.5
62.5°	520.2	520.2
65°	467.9	469.8
67.5°	413.8	418.4
70°	358.7	359.6
72.5°	304.5	304.5
75°	248.4	249.4
77.5°	195.2	195.2
80°	144.8	145.7
82.5°	99.9	101.8
85°	62.6	62.6
87.5°	29.0	26.2
90°	14.8	14.8
92.5°	59.1	47.4
95°	206.1	170.5
97.5°	493.8	426.2
100°	711.5	630.9
102.5°	925.7	856.7
105°	1198.7	1161.6
107.5°	1377.6	1386.5
110°	1445.7	1484.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1451.8	1511.2
115°	1413.3	1495.7
117.5°	1331.7	1423.0
120°	1265.9	1354.7
122.5°	1201.9	1289.4
125°	1110.4	1191.1
127.5°	1028.3	1096.3
130°	979.9	1042.7
132.5°	935.9	992.2
135°	875.6	924.2
137.5°	827.4	867.1
140°	794.3	831.4
142.5°	766.8	798.8
145°	725.6	749.8
147.5°	694.1	714.0
150°	674.1	690.3
152.5°	657.1	669.4
155°	637.5	645.7
157.5°	622.1	627.8
160°	612.9	616.2
162.5°	606.8	609.9
165°	598.1	601.4
167.5°	591.8	593.2
170°	590.1	590.1
172.5°	585.5	584.3
175°	582.7	582.7
177.5°	580.3	578.9
180°	578.9	578.9

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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	3.17	3.95	4.22	5.01	6.45	16.31	17.09	17.36	18.15	19.59
	3H	3.87	4.57	4.93	5.64	7.10	18.13	18.83	19.19	19.90	21.35
	4H	4.16	4.83	5.23	5.90	7.36	18.76	19.43	19.83	20.50	21.96
	6H	4.41	5.03	5.49	6.10	7.57	19.17	19.79	20.25	20.86	22.34
	8H	4.48	5.06	5.56	6.15	7.62	19.28	19.87	20.37	20.96	22.43
	12H	4.49	5.05	5.58	6.13	7.63	19.34	19.90	20.43	20.98	22.48
4H	2H	10.35	11.02	11.43	12.09	13.55	16.57	17.24	17.65	18.31	19.77
	3H	11.91	12.47	13.00	13.57	15.04	18.60	19.16	19.68	20.25	21.73
	4H	12.00	12.52	13.10	13.61	15.10	19.35	19.86	20.44	20.95	22.45
	6H	12.01	12.45	13.11	13.56	15.05	19.87	20.31	20.97	21.43	22.91
	8H	11.99	12.40	13.09	13.50	15.01	20.03	20.44	21.13	21.54	23.05
	12H	11.94	12.31	13.06	13.43	14.94	20.11	20.48	21.23	21.60	23.11
8H	4H	13.43	13.84	14.53	14.95	16.45	19.41	19.82	20.51	20.92	22.43
	6H	13.67	14.01	14.79	15.16	16.66	20.02	20.36	21.14	21.51	23.01
	8H	13.69	13.99	14.82	15.11	16.64	20.23	20.53	21.36	21.65	23.18
	12H	13.65	13.92	14.79	15.04	16.60	20.36	20.63	21.50	21.75	23.31
12H	4H	13.57	13.94	14.69	15.06	16.57	19.35	19.73	20.47	20.84	22.36
	6H	13.92	14.23	15.05	15.35	16.87	20.00	20.30	21.13	21.43	22.95
	8H	13.99	14.25	15.12	15.38	16.94	20.22	20.48	21.35	21.61	23.16