

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: P937610

Luminaire Tested: SQ4-FB-100U-100D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937610
REPORT IS A COMBINATION OF REPORTS P933567 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

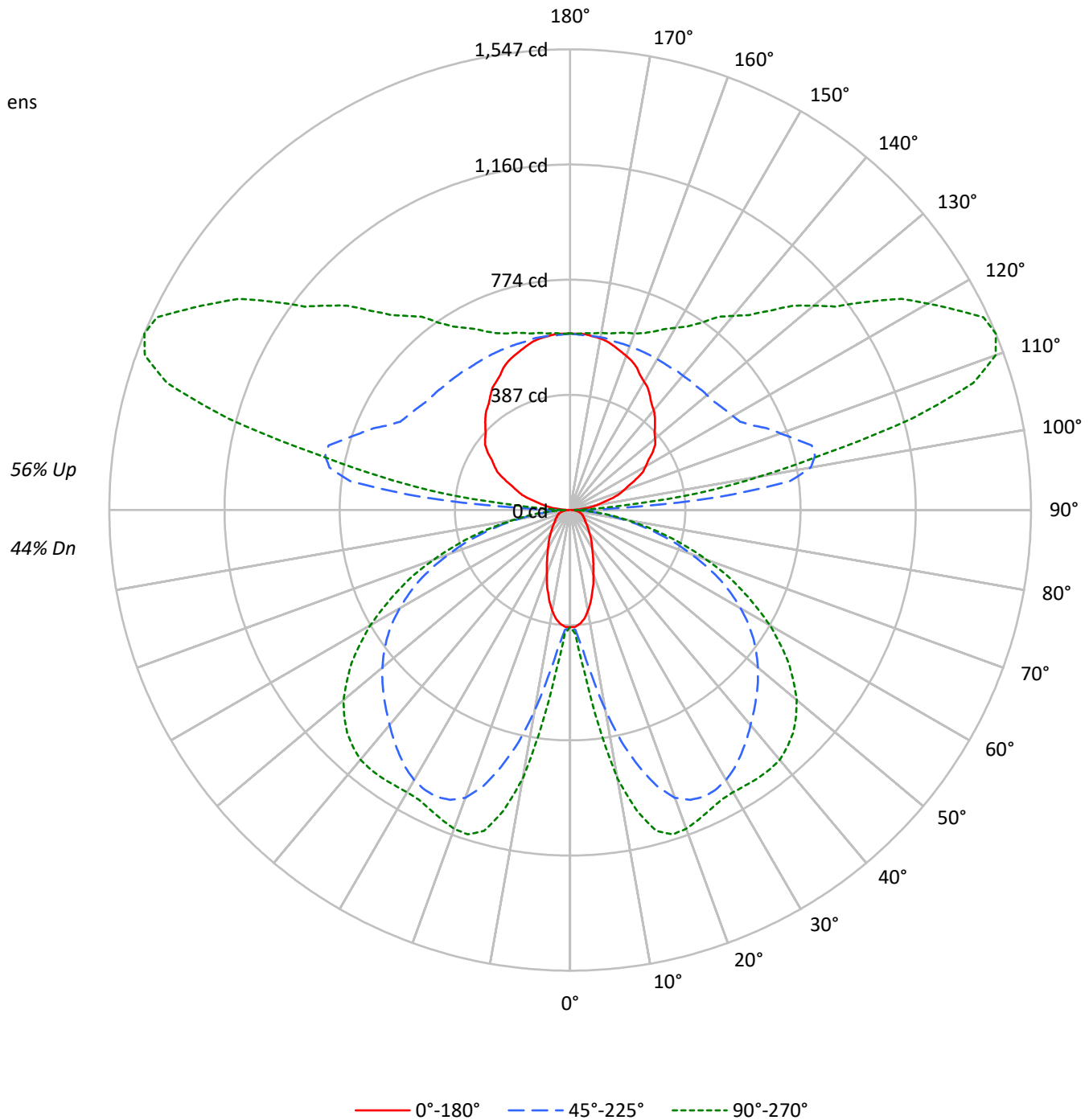
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6882.2 lumens
Efficiency: N/A
Efficacy: 118.7 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: General Diffuse

Input Watts (W): 58
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	44			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9			9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3645	3645	3645
5°	3558	4210	4901
10°	3223	6133	8123
15°	2736	8007	9809
20°	2224	9272	9997
25°	1854	9694	9794
30°	1561	9749	9776
35°	1378	9579	10028
40°	1198	9360	10289
45°	1083	9198	10330
50°	991	9051	10159
55°	947	8839	9708
60°	966	8439	8998
65°	1000	7837	8020
70°	1059	6820	6775
75°	1161	5547	5288
80°	1240	3833	3562
85°	1043	2023	1823

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	0.7
10°-20°	225.2	3.3
20°-30°	394.0	5.7
30°-40°	507.1	7.4
40°-50°	566.4	8.2
50°-60°	542.5	7.9
60°-70°	430.0	6.2
70°-80°	252.8	3.7
80°-90°	72.5	1.1
90°-100°	288.8	4.2
100°-110°	759.3	11.0
110°-120°	787.3	11.4
120°-130°	631.5	9.2
130°-140°	495.5	7.2
140°-150°	380.3	5.5
150°-160°	273.9	4.0
160°-170°	167.6	2.4
170°-180°	56.6	0.8
0°-30°	670.0	9.7
0°-40°	1177.1	17.1
0°-60°	2286.1	33.2
0°-90°	3041.4	44.2
90°-120°	1835.4	26.7
90°-150°	3342.8	48.6
90°-180°	3841.0	55.8
0°-180°	6882.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	383	410	462	523	542	35
15°	287	529	892	1081	1115	80
25°	183	600	1062	1109	1110	84
35°	124	574	1000	1057	1099	77
45°	85	457	884	1013	1059	65
55°	61	290	750	872	896	55
65°	48	154	557	627	635	48
75°	35	95	306	336	337	37
85°	13	29	76	83	85	13
90°	4	11	30	15	15	4
95°	38	150	497	256	175	42
105°	137	207	840	1274	1189	145
115°	243	295	672	1341	1531	240
125°	338	379	612	1033	1219	300
135°	403	443	592	834	946	312
145°	467	497	585	712	768	293
155°	528	543	585	642	661	243
165°	570	577	585	608	616	161
175°	592	592	589	596	596	56
180°	592	592	592	592	592	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2.5°	392.8	392.8	395.4	396.6	399.1	400.5	403.0	405.4	413.1	414.3	416.8
5°	382.8	387.8	404.2	410.5	428.2	452.2	462.3	478.8	512.9	522.9	529.2
7.5°	367.6	379.0	419.4	429.5	473.7	536.9	563.4	598.7	653.0	679.6	701.0
10°	343.6	367.6	439.6	463.6	535.6	631.6	680.9	730.1	812.2	848.8	862.8
12.5°	317.1	356.2	461.1	493.9	597.5	737.7	797.1	851.4	944.9	994.1	1001.7
15°	286.7	339.8	481.3	529.2	663.2	826.2	891.9	958.8	1046.0	1081.3	1090.1
17.5°	260.2	327.1	500.2	550.8	713.7	905.7	972.6	1028.3	1099.0	1123.0	1129.3
20°	227.3	307.0	512.9	578.6	766.8	963.8	1028.3	1071.2	1119.2	1134.4	1136.9
22.5°	203.3	285.5	520.4	588.6	802.1	999.2	1053.5	1087.6	1120.4	1125.5	1126.7
25°	183.2	261.5	519.2	600.0	832.5	1020.6	1062.3	1087.6	1106.6	1109.1	1109.1
27.5°	164.2	235.0	514.1	602.6	855.1	1025.7	1058.6	1076.3	1085.1	1090.1	1090.1
30°	147.8	209.7	501.5	597.5	865.3	1020.6	1047.2	1056.0	1064.9	1072.4	1076.3
32.5°	135.2	185.7	482.6	587.4	866.5	1008.0	1026.9	1032.0	1044.6	1062.3	1068.7
35°	123.8	161.7	461.1	573.5	859.0	987.8	1000.5	1005.5	1030.8	1057.3	1066.1
37.5°	112.4	144.0	433.3	549.5	847.6	963.8	972.6	981.5	1020.6	1052.3	1062.3
40°	101.0	128.9	400.5	522.9	829.9	934.8	942.3	956.3	1008.0	1044.6	1054.8
42.5°	92.3	116.2	365.1	495.2	807.2	901.9	913.3	933.5	992.9	1032.0	1043.4
45°	84.6	103.5	327.1	457.3	778.1	867.9	884.2	912.0	975.2	1013.1	1023.2
47.5°	77.1	94.7	288.0	418.2	746.5	833.7	855.1	886.8	951.2	987.8	996.6
50°	70.7	85.9	248.8	376.5	712.4	797.1	822.4	855.1	920.9	954.9	966.3
52.5°	65.7	78.3	212.2	334.8	673.3	759.2	788.2	822.4	884.2	917.1	924.6
55°	60.6	72.0	180.7	290.5	632.9	718.7	750.4	783.2	843.9	871.6	876.7
57.5°	58.1	66.9	154.1	248.8	589.9	673.3	708.7	739.0	795.8	817.3	822.4
60°	54.3	63.2	133.9	213.5	543.2	630.3	660.7	691.0	739.0	756.7	760.4
62.5°	50.6	60.6	118.7	179.3	495.2	579.8	610.1	637.9	678.4	691.0	696.1
65°	48.0	58.1	107.4	154.1	445.9	526.8	557.1	581.1	613.9	626.6	629.0
67.5°	45.5	55.5	98.6	132.6	396.6	473.7	496.5	519.2	544.4	557.1	558.3
70°	41.7	53.1	90.9	117.5	346.1	413.1	432.0	456.0	476.2	482.6	486.3
72.5°	39.2	49.2	85.9	106.1	294.4	355.0	372.6	386.5	404.2	410.5	410.5
75°	35.4	44.2	80.9	94.7	241.3	290.5	305.7	319.6	333.5	336.0	332.2
77.5°	31.5	39.2	69.5	79.5	188.2	229.9	242.5	250.1	261.5	264.0	265.3
80°	26.5	34.1	54.3	61.9	136.4	169.3	178.1	184.4	194.5	194.5	197.0
82.5°	20.2	26.5	39.2	44.2	92.3	116.2	123.8	127.6	133.9	133.9	133.9
85°	12.6	16.4	25.2	29.1	55.5	70.7	75.8	77.1	82.1	83.4	83.4
87.5°	6.3	8.8	16.4	17.7	29.1	36.6	36.6	39.2	39.2	37.9	36.6
90°	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.9	20.2	15.1	15.1
92.5°	15.9	42.9	70.0	76.8	107.9	149.4	170.2	149.1	107.1	75.5	72.6
95°	38.1	87.7	137.2	149.5	265.5	420.1	497.4	443.9	336.8	256.5	247.4
97.5°	66.0	109.7	153.3	164.2	357.6	615.5	744.3	710.5	642.8	592.1	574.7
100°	87.5	127.1	166.6	176.6	391.2	677.3	820.3	822.8	827.7	831.4	810.8
102.5°	105.7	142.7	179.6	188.9	406.6	696.7	841.9	885.0	971.2	1035.8	1018.1
105°	136.8	168.1	199.3	207.2	418.0	698.9	839.5	936.1	1129.4	1274.4	1265.0
107.5°	168.6	197.8	227.0	234.2	420.1	667.8	791.7	926.6	1196.2	1398.5	1400.8
110°	190.1	216.4	242.7	249.3	416.8	640.2	751.9	902.7	1204.2	1430.3	1440.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	211.2	236.2	261.3	267.6	417.0	616.1	715.8	870.1	1178.6	1410.0	1425.2
115°	242.9	266.1	289.2	295.0	420.8	588.6	672.5	821.1	1118.3	1341.3	1362.3
117.5°	274.4	295.4	316.4	321.7	428.7	571.3	642.6	776.8	1045.0	1246.2	1269.6
120°	292.6	312.4	332.2	337.2	435.0	565.5	630.7	753.2	998.4	1182.2	1204.9
122.5°	310.6	330.6	350.6	355.5	444.2	562.4	621.5	731.8	952.6	1118.1	1140.5
125°	338.0	356.2	374.4	379.0	456.5	559.8	611.6	705.3	892.8	1033.4	1054.1
127.5°	360.2	378.6	397.0	401.6	468.8	558.4	603.2	683.7	844.7	965.5	982.9
130°	372.2	392.0	411.7	416.7	477.8	559.4	600.1	671.8	815.1	922.5	938.6
132.5°	384.5	404.3	424.1	429.1	485.1	559.8	597.2	661.4	789.7	885.9	900.4
135°	402.9	420.8	438.9	443.4	493.1	559.4	592.5	646.3	753.6	834.2	846.6
137.5°	421.5	439.4	457.2	461.7	505.0	562.8	591.7	637.1	727.9	796.1	806.2
140°	437.0	453.4	469.9	474.0	512.3	563.4	588.9	628.1	706.6	765.5	774.9
142.5°	448.9	464.1	479.3	483.2	518.4	565.4	588.9	623.3	692.2	744.0	752.2
145°	467.2	480.5	493.7	497.0	526.4	565.5	585.0	613.2	669.5	711.7	718.0
147.5°	485.6	498.5	511.3	514.5	538.0	569.3	585.0	607.2	651.5	684.8	689.9
150°	497.4	509.1	520.7	523.7	544.2	571.4	585.0	603.7	641.1	669.2	673.3
152.5°	509.7	518.5	527.4	529.6	548.1	572.6	585.0	600.9	632.9	656.9	660.0
155°	528.1	534.6	541.2	542.8	556.9	575.6	585.0	597.7	623.1	642.1	644.2
157.5°	541.6	548.0	554.3	555.9	565.6	578.5	585.0	594.8	614.6	629.4	630.9
160°	550.8	555.7	560.6	561.8	569.6	579.8	585.0	593.5	610.4	623.1	624.0
162.5°	559.8	563.6	567.3	568.2	573.8	581.2	585.0	592.1	606.4	617.1	617.9
165°	569.8	573.1	576.5	577.3	579.9	583.3	585.0	590.1	600.4	608.0	608.9
167.5°	579.0	580.6	582.2	582.6	584.7	587.5	588.9	592.2	598.9	604.0	604.4
170°	585.0	586.5	588.1	588.5	588.6	588.8	588.9	592.2	598.9	604.0	604.0
172.5°	588.1	588.5	588.8	588.9	588.9	588.9	588.9	591.6	596.8	600.8	600.6
175°	592.5	592.5	592.5	592.5	591.3	589.7	588.9	590.6	594.0	596.4	596.4
177.5°	592.5	592.5	592.5	592.5	591.6	590.3	589.7	591.0	593.7	595.7	595.3
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	392.8	392.8
2.5°	419.4	416.8
5°	539.4	542.0
7.5°	726.4	725.0
10°	903.2	914.5
12.5°	1032.0	1034.6
15°	1110.4	1115.4
17.5°	1140.7	1141.9
20°	1141.9	1139.4
22.5°	1128.1	1125.5
25°	1111.6	1110.4
27.5°	1096.4	1097.7
30°	1090.1	1094.0
32.5°	1090.1	1096.4
35°	1092.7	1099.0
37.5°	1091.4	1099.0
40°	1086.4	1095.2
42.5°	1072.4	1078.8
45°	1051.0	1058.6
47.5°	1023.2	1028.3
50°	987.8	992.9
52.5°	943.6	944.9
55°	890.5	895.6
57.5°	833.7	835.0
60°	770.5	774.4
62.5°	703.6	703.6
65°	632.9	635.4
67.5°	559.6	566.0
70°	485.1	486.3
72.5°	411.8	411.8
75°	336.0	337.3
77.5°	264.0	264.0
80°	195.8	197.0
82.5°	135.2	137.7
85°	84.6	84.6
87.5°	39.2	35.4
90°	15.1	15.1
92.5°	60.5	48.5
95°	211.0	174.6
97.5°	505.4	436.2
100°	728.3	645.8
102.5°	947.5	876.8
105°	1226.9	1189.0
107.5°	1410.0	1419.2
110°	1479.8	1519.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1486.0	1546.8
115°	1446.6	1530.9
117.5°	1363.1	1456.6
120°	1295.8	1386.6
122.5°	1230.2	1319.8
125°	1136.6	1219.2
127.5°	1052.6	1122.2
130°	1002.9	1067.3
132.5°	957.9	1015.6
135°	896.2	946.0
137.5°	846.9	887.6
140°	813.0	850.9
142.5°	784.9	817.6
145°	742.7	767.5
147.5°	710.4	730.9
150°	689.9	706.6
152.5°	672.5	685.2
155°	652.6	660.9
157.5°	636.8	642.6
160°	627.3	630.7
162.5°	621.1	624.3
165°	612.2	615.6
167.5°	605.7	607.2
170°	604.0	604.0
172.5°	599.3	598.1
175°	596.4	596.4
177.5°	594.0	592.5
180°	592.5	592.5



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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	4.93	5.77	5.93	6.79	8.14	18.07	18.91	19.07	19.93	21.28
	3H	5.63	6.39	6.64	7.42	8.78	19.89	20.65	20.90	21.67	23.04
	4H	5.93	6.65	6.95	7.68	9.05	20.53	21.25	21.55	22.27	23.65
	6H	6.18	6.84	7.21	7.88	9.26	20.94	21.61	21.98	22.64	24.03
	8H	6.25	6.88	7.29	7.93	9.31	21.06	21.69	22.09	22.74	24.12
	12H	6.27	6.87	7.31	7.91	9.32	21.12	21.72	22.16	22.76	24.17
4H	2H	12.12	12.84	13.15	13.86	15.24	18.34	19.06	19.37	20.09	21.46
	3H	13.69	14.29	14.72	15.34	16.73	20.37	20.97	21.41	22.03	23.42
	4H	13.78	14.33	14.83	15.38	16.79	21.13	21.68	22.17	22.73	24.14
	6H	13.79	14.27	14.85	15.34	16.74	21.65	22.13	22.71	23.20	24.61
	8H	13.77	14.21	14.82	15.28	16.70	21.81	22.25	22.86	23.31	24.74
	12H	13.72	14.13	14.80	15.20	16.63	21.89	22.30	22.97	23.37	24.80
8H	4H	15.21	15.66	16.27	16.72	18.14	21.19	21.63	22.24	22.69	24.12
	6H	15.46	15.82	16.53	16.93	18.35	21.80	22.17	22.88	23.28	24.70
	8H	15.47	15.80	16.56	16.89	18.33	22.02	22.34	23.10	23.43	24.87
	12H	15.44	15.73	16.53	16.81	18.29	22.15	22.44	23.24	23.52	25.00
12H	4H	15.35	15.76	16.43	16.83	18.26	21.14	21.54	22.21	22.62	24.05
	6H	15.71	16.04	16.80	17.12	18.56	21.79	22.11	22.87	23.20	24.64
	8H	15.78	16.06	16.87	17.15	18.63	22.01	22.29	23.10	23.38	24.86