

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: P936858

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936858
REPORT IS A COMBINATION OF REPORTS P933471 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-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: -

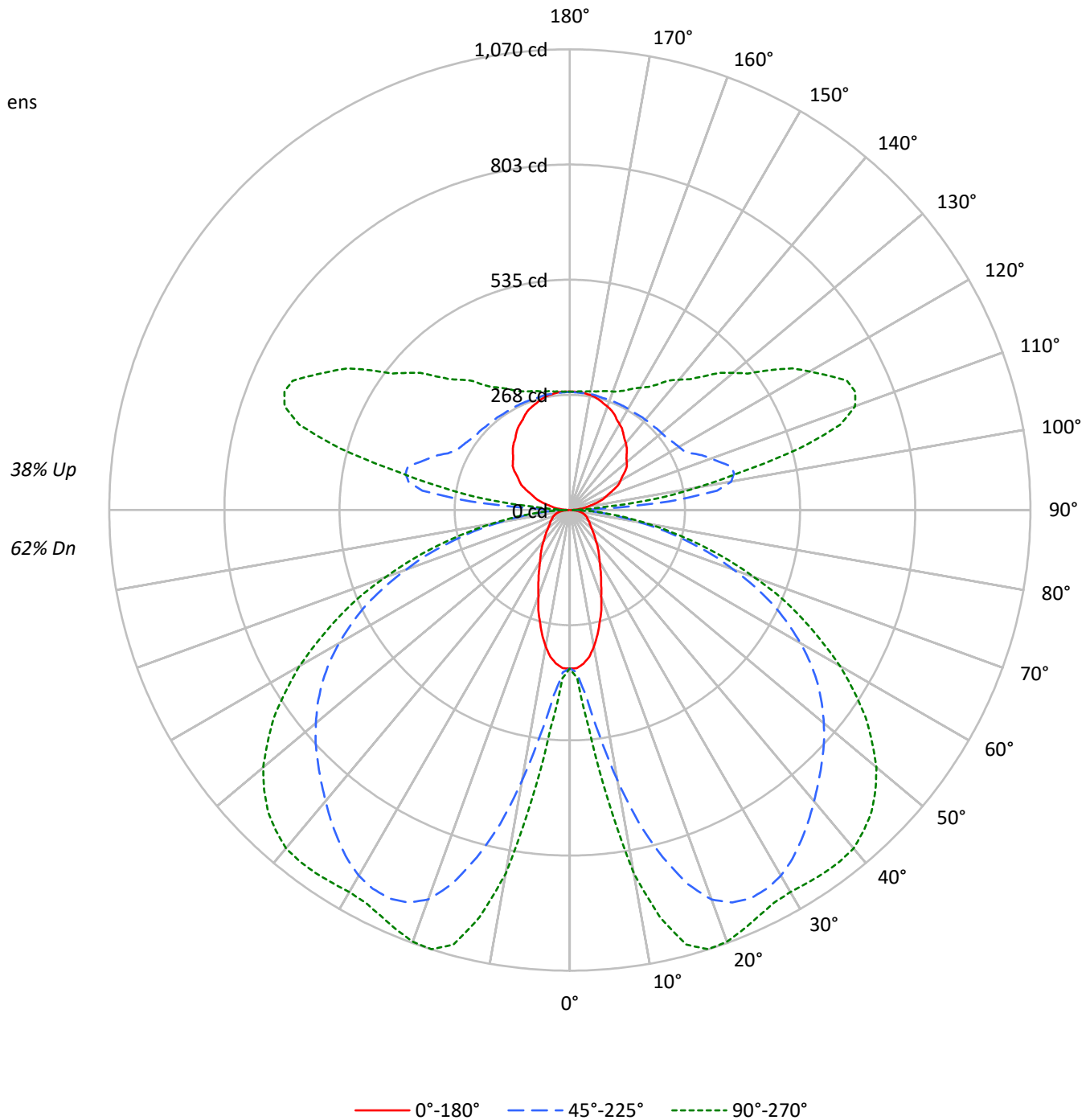
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4629.7 lumens
Efficiency: N/A
Efficacy: 102.4 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-Direct

Input Watts (W): 45.2
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: P936858
CATALOG NUMBER: SQ4-FB-050U-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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

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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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	1.0
10°-20°	210.9	4.6
20°-30°	368.9	8.0
30°-40°	474.9	10.3
40°-50°	530.5	11.5
50°-60°	508.1	11.0
60°-70°	402.7	8.7
70°-80°	236.8	5.1
80°-90°	66.8	1.4
90°-100°	134.0	2.9
100°-110°	352.4	7.6
110°-120°	365.4	7.9
120°-130°	293.1	6.3
130°-140°	230.0	5.0
140°-150°	176.5	3.8
150°-160°	127.1	2.7
160°-170°	77.8	1.7
170°-180°	26.3	0.6
0°-30°	627.5	13.6
0°-40°	1102.4	23.8
0°-60°	2141.0	46.2
0°-90°	2847.2	61.5
90°-120°	851.7	18.4
90°-150°	1551.3	33.5
90°-180°	1782.0	38.5
0°-180°	4629.7	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°	2	5	14	7	7	2
95°	18	69	231	119	81	20
105°	64	96	390	591	552	67
115°	113	137	312	622	710	111
125°	157	176	284	480	566	139
135°	187	206	275	387	439	145
145°	217	231	272	330	356	136
155°	245	252	272	298	307	113
165°	264	268	272	282	286	75
175°	275	275	273	277	277	26
180°	275	275	275	275	275	



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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°	1.9	3.3	4.8	5.2	8.1	12.1	14.1	12.4	9.3	7.0	7.0
92.5°	7.3	19.9	32.5	35.6	50.0	69.3	79.0	69.2	49.7	35.1	33.7
95°	17.7	40.6	63.7	69.4	123.2	194.9	230.8	205.9	156.2	119.0	114.8
97.5°	30.6	50.9	71.1	76.2	165.9	285.6	345.4	329.7	298.3	274.8	266.7
100°	40.6	58.9	77.4	81.9	181.5	314.3	380.7	381.9	384.2	385.9	376.3
102.5°	49.1	66.3	83.4	87.7	188.6	323.3	390.6	410.7	450.7	480.7	472.5
105°	63.5	78.0	92.5	96.2	193.9	324.4	389.6	434.4	524.1	591.4	587.1
107.5°	78.3	91.8	105.3	108.7	194.9	310.0	367.4	430.0	555.2	649.0	650.1
110°	88.2	100.4	112.6	115.7	193.5	297.2	349.0	418.9	558.9	663.8	668.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	97.9	109.6	121.2	124.2	193.5	286.0	332.2	403.8	546.9	654.4	661.5
115°	112.7	123.5	134.2	136.9	195.3	273.1	312.0	381.0	518.9	622.4	632.2
117.5°	127.3	137.1	146.8	149.2	198.9	265.1	298.2	360.5	484.9	578.3	589.1
120°	135.8	145.0	154.2	156.5	201.9	262.4	292.7	349.5	463.3	548.6	559.2
122.5°	144.1	153.5	162.7	165.0	206.1	261.0	288.4	339.6	442.1	518.9	529.3
125°	156.9	165.3	173.7	175.8	211.8	259.8	283.8	327.3	414.4	479.6	489.2
127.5°	167.2	175.7	184.3	186.4	217.6	259.2	280.0	317.3	392.0	448.0	456.1
130°	172.7	181.9	191.1	193.4	221.8	259.6	278.4	311.7	378.3	428.1	435.6
132.5°	178.4	187.7	196.8	199.1	225.2	259.8	277.2	306.9	366.5	411.1	417.8
135°	186.9	195.3	203.7	205.7	228.8	259.6	275.0	299.8	349.7	387.1	392.9
137.5°	195.6	203.9	212.2	214.2	234.4	261.2	274.6	295.6	337.8	369.4	374.2
140°	202.8	210.4	218.1	220.0	237.7	261.4	273.2	291.5	328.0	355.3	359.6
142.5°	208.3	215.4	222.4	224.2	240.6	262.3	273.2	289.3	321.2	345.2	349.0
145°	216.8	222.9	229.1	230.6	244.2	262.4	271.5	284.5	310.7	330.3	333.1
147.5°	225.4	231.3	237.3	238.8	249.7	264.2	271.5	281.8	302.3	317.7	320.2
150°	230.8	236.2	241.6	243.0	252.5	265.1	271.5	280.1	297.5	310.6	312.6
152.5°	236.5	240.7	244.8	245.8	254.4	265.7	271.5	278.9	293.8	304.9	306.3
155°	245.0	248.1	251.1	251.9	258.4	267.1	271.5	277.4	289.2	298.0	299.0
157.5°	251.3	254.3	257.2	257.9	262.4	268.4	271.5	276.0	285.2	292.1	292.9
160°	255.6	257.8	260.2	260.7	264.3	269.0	271.5	275.4	283.3	289.2	289.5
162.5°	259.8	261.5	263.2	263.7	266.3	269.8	271.5	274.8	281.4	286.4	286.8
165°	264.5	266.0	267.6	268.0	269.1	270.7	271.5	273.8	278.5	282.1	282.5
167.5°	268.7	269.4	270.1	270.3	271.3	272.6	273.2	274.9	278.0	280.3	280.5
170°	271.5	272.2	272.9	273.1	273.2	273.2	273.2	274.9	278.0	280.3	280.3
172.5°	272.9	273.1	273.2	273.2	273.2	273.2	273.2	274.5	276.9	278.8	278.6
175°	275.0	275.0	275.0	275.0	274.4	273.6	273.2	274.1	275.7	276.8	276.8
177.5°	275.0	275.0	275.0	275.0	274.5	274.0	273.7	274.3	275.6	276.5	276.3
180°	275.0	275.0	275.0	275.0	275.0	275.0	275.0	275.0	275.0	275.0	275.0



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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°	7.0	7.0
92.5°	28.1	22.5
95°	97.9	81.0
97.5°	234.6	202.4
100°	338.0	299.7
102.5°	439.7	406.9
105°	569.4	551.8
107.5°	654.3	658.6
110°	686.7	705.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	689.7	717.9
115°	671.3	710.4
117.5°	632.5	676.0
120°	601.3	643.5
122.5°	570.9	612.5
125°	527.4	565.7
127.5°	488.4	520.7
130°	465.5	495.3
132.5°	444.5	471.3
135°	416.0	439.0
137.5°	393.0	411.8
140°	377.3	394.9
142.5°	364.2	379.4
145°	344.7	356.2
147.5°	329.7	339.1
150°	320.3	328.0
152.5°	312.1	317.9
155°	302.9	306.7
157.5°	295.5	298.2
160°	291.2	292.7
162.5°	288.3	289.7
165°	284.1	285.7
167.5°	281.1	281.8
170°	280.3	280.3
172.5°	278.1	277.5
175°	276.8	276.8
177.5°	275.7	275.0
180°	275.0	275.0



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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	6.24	7.26	7.08	8.14	9.23	19.38	20.40	20.22	21.28	22.37
	3H	6.96	7.88	7.81	8.76	9.88	21.22	22.14	22.07	23.02	24.14
	4H	7.26	8.14	8.13	9.02	10.15	21.86	22.73	22.73	23.62	24.75
	6H	7.52	8.33	8.41	9.22	10.37	22.29	23.09	23.17	23.99	25.13
	8H	7.60	8.37	8.49	9.28	10.42	22.40	23.17	23.30	24.09	25.23
	12H	7.62	8.35	8.52	9.26	10.43	22.47	23.20	23.37	24.11	25.28
4H	2H	13.45	14.32	14.33	15.21	16.34	19.67	20.55	20.55	21.44	22.57
	3H	15.04	15.77	15.92	16.69	17.83	21.72	22.45	22.61	23.37	24.52
	4H	15.14	15.81	16.04	16.72	17.89	22.48	23.15	23.38	24.07	25.24
	6H	15.16	15.74	16.07	16.68	17.85	23.02	23.60	23.94	24.54	25.71
	8H	15.14	15.68	16.06	16.62	17.80	23.18	23.72	24.10	24.66	25.84
	12H	15.11	15.60	16.04	16.55	17.74	23.27	23.76	24.21	24.72	25.91
8H	4H	16.59	17.13	17.50	18.06	19.25	22.56	23.10	23.48	24.04	25.22
	6H	16.84	17.29	17.78	18.26	19.45	23.18	23.63	24.13	24.61	25.80
	8H	16.86	17.26	17.81	18.22	19.43	23.40	23.80	24.35	24.76	25.97
	12H	16.83	17.19	17.79	18.14	19.40	23.54	23.89	24.50	24.85	26.10
12H	4H	16.74	17.23	17.67	18.18	19.37	22.52	23.01	23.46	23.96	25.16
	6H	17.09	17.49	18.05	18.46	19.66	23.17	23.57	24.12	24.53	25.74
	8H	17.17	17.52	18.13	18.48	19.73	23.40	23.75	24.36	24.71	25.96