

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: P936859

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936859
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-4-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

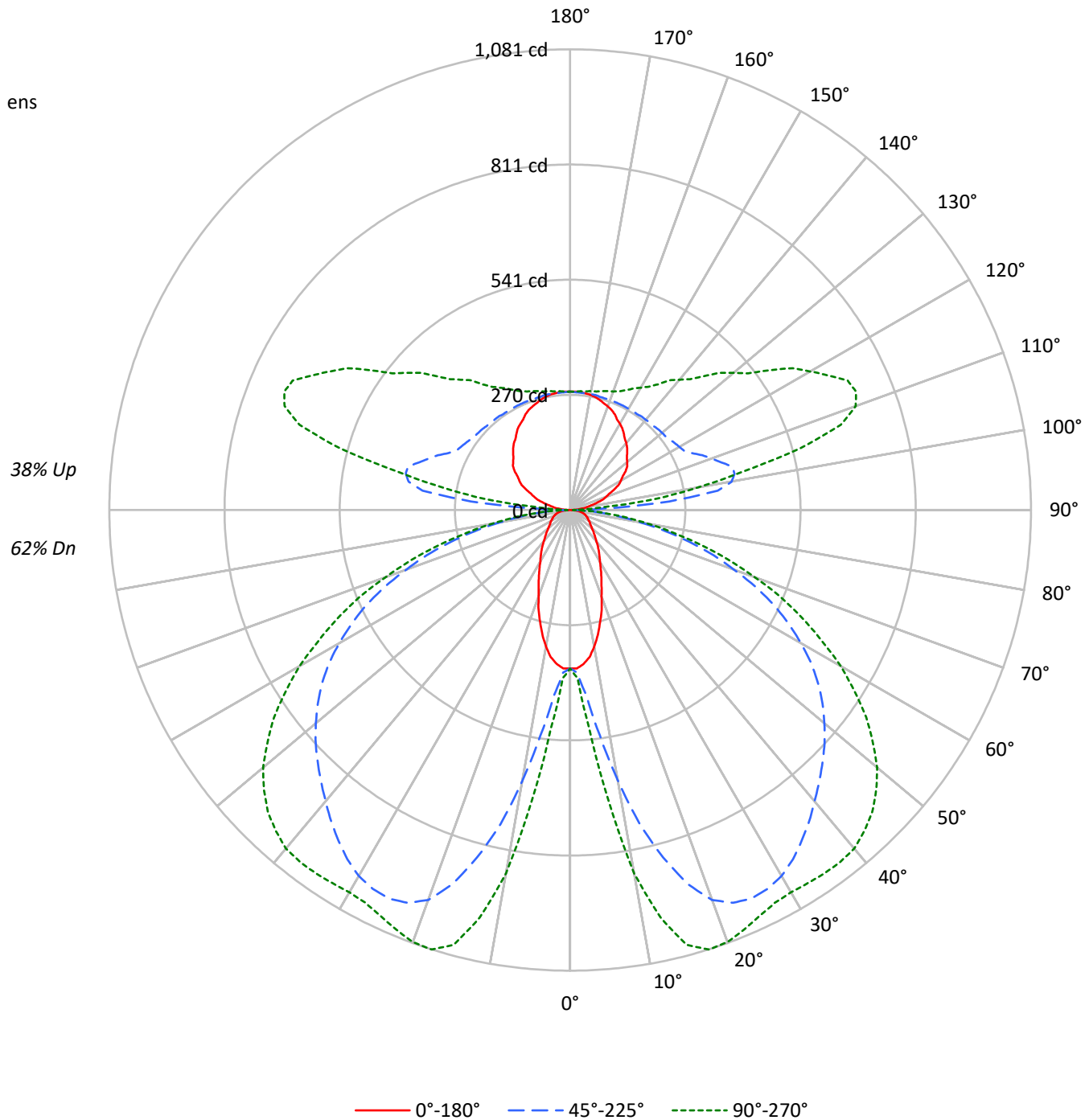
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4680.6 lumens
Efficiency: N/A
Efficacy: 103.6 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: P936859
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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°	3451	3451	3451
5°	3368	3986	4639
10°	3052	5807	7691
15°	2591	7581	9287
20°	2106	8779	9465
25°	1755	9179	9273
30°	1478	9230	9256
35°	1305	9070	9495
40°	1135	8863	9742
45°	1026	8709	9780
50°	939	8569	9619
55°	897	8369	9192
60°	914	7991	8519
65°	946	7419	7594
70°	1003	6457	6416
75°	1099	5253	5006
80°	1175	3628	3374
85°	985	1916	1726

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9780 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	1.0
10°-20°	213.2	4.6
20°-30°	373.0	8.0
30°-40°	480.2	10.3
40°-50°	536.3	11.5
50°-60°	513.7	11.0
60°-70°	407.1	8.7
70°-80°	239.4	5.1
80°-90°	67.6	1.4
90°-100°	135.5	2.9
100°-110°	356.2	7.6
110°-120°	369.4	7.9
120°-130°	296.3	6.3
130°-140°	232.5	5.0
140°-150°	178.4	3.8
150°-160°	128.5	2.7
160°-170°	78.6	1.7
170°-180°	26.6	0.6
0°-30°	634.4	13.6
0°-40°	1114.5	23.8
0°-60°	2164.5	46.2
0°-90°	2878.6	61.5
90°-120°	861.1	18.4
90°-150°	1568.3	33.5
90°-180°	1802.0	38.5
0°-180°	4680.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	362	389	438	495	513	33
15°	272	501	844	1024	1056	76
25°	173	568	1006	1050	1051	80
35°	117	543	947	1001	1041	73
45°	80	433	837	959	1002	62
55°	57	275	710	825	848	52
65°	45	146	527	593	602	45
75°	34	90	290	318	319	35
85°	12	28	72	79	80	13
90°	2	5	14	7	7	2
95°	18	70	233	120	82	20
105°	64	97	394	598	558	68
115°	114	138	315	629	718	113
125°	159	178	287	485	572	141
135°	189	208	278	391	444	146
145°	219	233	274	334	360	137
155°	248	255	274	301	310	114
165°	267	271	274	285	289	75
175°	278	278	276	280	280	26
180°	278	278	278	278	278	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9
2.5°	371.9	371.9	374.4	375.6	377.9	379.2	381.5	383.9	391.1	392.3	394.7
5°	362.4	367.2	382.7	388.7	405.4	428.1	437.7	453.3	485.6	495.1	501.1
7.5°	348.0	358.8	397.1	406.7	448.5	508.3	533.4	566.9	618.3	643.5	663.8
10°	325.3	348.0	416.2	438.9	507.1	598.0	644.7	691.3	769.0	803.7	816.9
12.5°	300.2	337.3	436.6	467.6	565.7	698.5	754.7	806.1	894.7	941.3	948.4
15°	271.5	321.7	455.7	501.1	627.9	782.2	844.4	907.8	990.3	1023.8	1032.2
17.5°	246.4	309.7	473.6	521.5	675.8	857.5	920.9	973.6	1040.6	1063.3	1069.3
20°	215.2	290.6	485.6	547.8	726.0	912.6	973.6	1014.2	1059.7	1074.1	1076.4
22.5°	192.5	270.3	492.8	557.3	759.4	946.1	997.5	1029.8	1060.8	1065.6	1066.8
25°	173.4	247.6	491.6	568.1	788.2	966.3	1005.8	1029.8	1047.7	1050.1	1050.1
27.5°	155.5	222.5	486.8	570.5	809.7	971.1	1002.3	1019.0	1027.4	1032.2	1032.2
30°	139.9	198.5	474.8	565.7	819.3	966.3	991.5	999.8	1008.3	1015.4	1019.0
32.5°	128.0	175.8	456.9	556.1	820.4	954.4	972.3	977.1	989.1	1005.8	1011.9
35°	117.2	153.1	436.6	543.0	813.3	935.3	947.3	952.0	975.9	1001.1	1009.4
37.5°	106.4	136.3	410.2	520.3	802.5	912.6	920.9	929.3	966.3	996.3	1005.8
40°	95.7	122.0	379.2	495.1	785.8	885.1	892.2	905.4	954.4	989.1	998.7
42.5°	87.3	110.1	345.7	468.9	764.2	853.9	864.7	883.9	940.1	977.1	987.9
45°	80.1	98.0	309.7	432.9	736.7	821.7	837.2	863.5	923.4	959.2	968.8
47.5°	73.0	89.7	272.7	395.9	706.8	789.4	809.7	839.6	900.6	935.3	943.6
50°	67.0	81.4	235.6	356.5	674.5	754.7	778.6	809.7	871.9	904.2	914.9
52.5°	62.2	74.1	200.9	317.0	637.5	718.8	746.3	778.6	837.2	868.3	875.5
55°	57.4	68.2	171.1	275.1	599.2	680.5	710.5	741.5	799.0	825.2	830.0
57.5°	55.0	63.4	145.9	235.6	558.6	637.5	671.0	699.7	753.5	773.8	778.6
60°	51.4	59.8	126.8	202.1	514.3	596.8	625.6	654.3	699.7	716.4	720.0
62.5°	47.9	57.4	112.4	169.8	468.9	549.0	577.7	604.0	642.3	654.3	659.0
65°	45.4	55.0	101.6	145.9	422.2	498.7	527.4	550.2	581.3	593.2	595.6
67.5°	43.1	52.6	93.3	125.5	375.6	448.5	470.1	491.6	515.5	527.4	528.6
70°	39.5	50.2	86.1	111.2	327.7	391.1	409.0	431.8	450.9	456.9	460.5
72.5°	37.1	46.6	81.4	100.5	278.7	336.1	352.8	366.0	382.7	388.7	388.7
75°	33.5	41.8	76.6	89.7	228.5	275.1	289.5	302.6	315.7	318.2	314.5
77.5°	29.9	37.1	65.8	75.3	178.2	217.7	229.6	236.8	247.6	250.0	251.2
80°	25.1	32.3	51.4	58.6	129.2	160.3	168.6	174.6	184.2	184.2	186.6
82.5°	19.1	25.1	37.1	41.8	87.3	110.1	117.2	120.8	126.8	126.8	126.8
85°	11.9	15.6	23.9	27.5	52.6	67.0	71.8	73.0	77.8	78.9	78.9
87.5°	6.0	8.3	15.6	16.7	27.5	34.7	34.7	37.1	37.1	35.8	34.7
90°	1.9	3.3	4.9	5.2	8.2	12.2	14.2	12.6	9.4	7.1	7.1
92.5°	7.4	20.1	32.9	36.0	50.6	70.1	79.8	70.0	50.2	35.5	34.0
95°	17.9	41.1	64.4	70.1	124.6	197.1	233.4	208.2	158.0	120.3	116.0
97.5°	31.0	51.4	71.9	77.0	167.7	288.7	349.2	333.4	301.6	277.8	269.6
100°	41.0	59.6	78.2	82.8	183.5	317.7	384.9	386.1	388.4	390.1	380.4
102.5°	49.6	67.0	84.3	88.6	190.7	326.9	394.9	415.2	455.7	486.0	477.7
105°	64.2	78.8	93.5	97.2	196.1	327.9	393.8	439.2	529.9	597.9	593.5
107.5°	79.1	92.8	106.4	109.9	197.1	313.4	371.5	434.7	561.3	656.2	657.2
110°	89.2	101.5	113.9	116.9	195.6	300.4	352.8	423.5	565.0	671.1	675.7



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CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	99.0	110.8	122.6	125.5	195.6	289.1	335.8	408.2	553.0	661.6	668.7
115°	114.0	124.8	135.7	138.4	197.4	276.1	315.4	385.1	524.6	629.3	639.1
117.5°	128.7	138.6	148.4	150.9	201.1	268.0	301.5	364.4	490.2	584.6	595.6
120°	137.3	146.6	155.9	158.2	204.1	265.3	295.9	353.4	468.4	554.7	565.4
122.5°	145.7	155.1	164.5	166.8	208.4	263.9	291.6	343.3	447.0	524.6	535.1
125°	158.6	167.1	175.6	177.8	214.2	262.7	286.9	330.9	418.9	484.9	494.6
127.5°	169.0	177.7	186.3	188.5	220.0	262.0	283.0	320.8	396.3	452.9	461.1
130°	174.6	183.9	193.2	195.5	224.2	262.4	281.5	315.2	382.4	432.8	440.4
132.5°	180.4	189.7	199.0	201.3	227.6	262.7	280.2	310.3	370.5	415.6	422.4
135°	189.0	197.4	205.9	208.0	231.4	262.4	278.0	303.1	353.6	391.4	397.2
137.5°	197.8	206.1	214.5	216.6	237.0	264.0	277.6	298.9	341.5	373.5	378.3
140°	205.0	212.7	220.5	222.4	240.3	264.3	276.3	294.7	331.6	359.2	363.6
142.5°	210.6	217.8	224.8	226.7	243.2	265.2	276.3	292.5	324.8	349.0	352.8
145°	219.2	225.4	231.6	233.2	246.9	265.3	274.4	287.7	314.1	333.9	336.8
147.5°	227.8	233.9	239.9	241.4	252.4	267.1	274.4	284.9	305.7	321.2	323.7
150°	233.4	238.8	244.3	245.7	255.3	268.0	274.4	283.2	300.8	314.0	316.0
152.5°	239.1	243.3	247.5	248.5	257.2	268.7	274.4	282.0	297.0	308.2	309.7
155°	247.7	250.8	253.9	254.6	261.2	270.0	274.4	280.4	292.4	301.3	302.3
157.5°	254.1	257.1	260.1	260.8	265.3	271.4	274.4	279.1	288.4	295.4	296.1
160°	258.4	260.7	263.0	263.6	267.2	272.0	274.4	278.4	286.4	292.4	292.7
162.5°	262.7	264.4	266.1	266.6	269.2	272.7	274.4	277.8	284.5	289.6	289.9
165°	267.4	268.9	270.6	270.9	272.1	273.6	274.4	276.8	281.6	285.2	285.6
167.5°	271.6	272.4	273.1	273.3	274.3	275.6	276.3	277.9	281.1	283.4	283.6
170°	274.4	275.2	275.9	276.1	276.2	276.3	276.3	277.9	281.1	283.4	283.4
172.5°	275.9	276.1	276.3	276.3	276.3	276.3	276.3	277.5	280.0	281.9	281.7
175°	278.0	278.0	278.0	278.0	277.4	276.6	276.3	277.1	278.7	279.9	279.9
177.5°	278.0	278.0	278.0	278.0	277.5	277.0	276.7	277.3	278.6	279.5	279.3
180°	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	371.9	371.9
2.5°	397.1	394.7
5°	510.7	513.1
7.5°	687.7	686.5
10°	855.2	865.9
12.5°	977.1	979.6
15°	1051.3	1056.1
17.5°	1080.0	1081.2
20°	1081.2	1078.8
22.5°	1068.1	1065.6
25°	1052.5	1051.3
27.5°	1038.1	1039.3
30°	1032.2	1035.8
32.5°	1032.2	1038.1
35°	1034.6	1040.6
37.5°	1033.3	1040.6
40°	1028.6	1037.0
42.5°	1015.4	1021.4
45°	995.1	1002.3
47.5°	968.8	973.6
50°	935.3	940.1
52.5°	893.4	894.7
55°	843.2	848.0
57.5°	789.4	790.6
60°	729.6	733.2
62.5°	666.2	666.2
65°	599.2	601.6
67.5°	529.9	535.9
70°	459.3	460.5
72.5°	389.9	389.9
75°	318.2	319.3
77.5°	250.0	250.0
80°	185.4	186.6
82.5°	128.0	130.3
85°	80.1	80.1
87.5°	37.1	33.5
90°	7.1	7.1
92.5°	28.4	22.7
95°	98.9	81.9
97.5°	237.2	204.7
100°	341.7	303.0
102.5°	444.5	411.4
105°	575.7	557.9
107.5°	661.5	665.8
110°	694.3	712.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	697.2	725.8
115°	678.7	718.2
117.5°	639.5	683.4
120°	607.9	650.5
122.5°	577.2	619.2
125°	533.2	572.0
127.5°	493.8	526.4
130°	470.6	500.7
132.5°	449.4	476.5
135°	420.5	443.8
137.5°	397.3	416.4
140°	381.4	399.3
142.5°	368.2	383.6
145°	348.5	360.1
147.5°	333.3	342.9
150°	323.8	331.6
152.5°	315.5	321.4
155°	306.2	310.1
157.5°	298.8	301.5
160°	294.4	295.9
162.5°	291.5	292.9
165°	287.2	288.8
167.5°	284.2	284.9
170°	283.4	283.4
172.5°	281.1	280.6
175°	279.9	279.9
177.5°	278.7	278.0
180°	278.0	278.0



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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	6.28	7.30	7.12	8.18	9.27	19.42	20.44	20.26	21.31	22.41
	3H	7.00	7.92	7.85	8.80	9.92	21.25	22.18	22.11	23.06	24.18
	4H	7.30	8.18	8.17	9.06	10.19	21.90	22.77	22.77	23.66	24.79
	6H	7.56	8.37	8.45	9.26	10.41	22.32	23.13	23.21	24.02	25.17
	8H	7.63	8.40	8.53	9.32	10.46	22.44	23.21	23.33	24.13	25.27
	12H	7.66	8.39	8.56	9.30	10.47	22.51	23.24	23.41	24.15	25.32
4H	2H	13.49	14.36	14.36	15.25	16.38	19.71	20.59	20.59	21.47	22.60
	3H	15.07	15.81	15.96	16.73	17.87	21.76	22.49	22.65	23.41	24.56
	4H	15.18	15.85	16.08	16.76	17.93	22.52	23.19	23.42	24.11	25.28
	6H	15.20	15.78	16.11	16.72	17.89	23.06	23.64	23.97	24.58	25.75
	8H	15.18	15.72	16.10	16.65	17.84	23.22	23.76	24.14	24.69	25.88
	12H	15.14	15.63	16.08	16.58	17.78	23.31	23.80	24.25	24.75	25.95
8H	4H	16.62	17.17	17.54	18.10	19.29	22.60	23.14	23.52	24.07	25.26
	6H	16.87	17.33	17.82	18.30	19.49	23.22	23.67	24.17	24.65	25.83
	8H	16.90	17.29	17.85	18.26	19.46	23.44	23.84	24.39	24.80	26.00
	12H	16.87	17.22	17.83	18.18	19.43	23.58	23.93	24.54	24.89	26.14
12H	4H	16.77	17.26	17.71	18.21	19.41	22.56	23.05	23.50	24.00	25.19
	6H	17.13	17.53	18.09	18.50	19.70	23.21	23.61	24.16	24.57	25.78
	8H	17.21	17.56	18.17	18.52	19.77	23.44	23.79	24.40	24.75	26.00