

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: P936818

Luminaire Tested: SQ4-FB-050U-100D-840-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936818
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-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

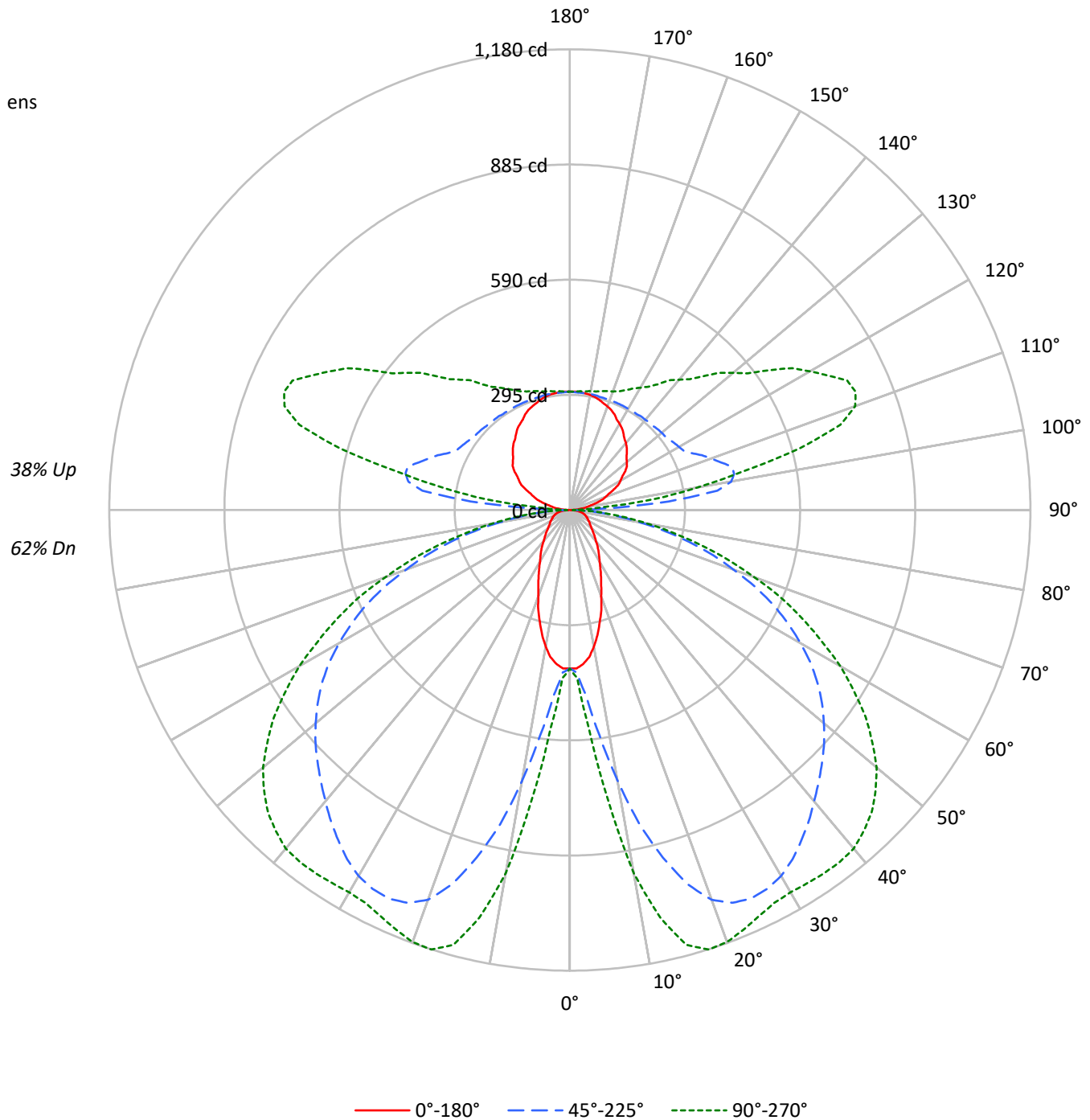
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5108.9 lumens
Efficiency: N/A
Efficacy: 113.0 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-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

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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°	3767	3767	3767
5°	3677	4351	5064
10°	3331	6338	8395
15°	2827	8275	10137
20°	2299	9582	10331
25°	1916	10019	10122
30°	1613	10075	10103
35°	1424	9899	10364
40°	1239	9674	10634
45°	1119	9506	10675
50°	1025	9354	10498
55°	978	9134	10033
60°	998	8721	9299
65°	1034	8099	8288
70°	1094	7049	7002
75°	1200	5734	5465
80°	1282	3962	3681
85°	1076	2090	1883

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10675 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.5	1.0
10°-20°	232.8	4.6
20°-30°	407.1	8.0
30°-40°	524.1	10.3
40°-50°	585.4	11.5
50°-60°	560.7	11.0
60°-70°	444.4	8.7
70°-80°	261.3	5.1
80°-90°	73.7	1.4
90°-100°	147.9	2.9
100°-110°	388.9	7.6
110°-120°	403.2	7.9
120°-130°	323.4	6.3
130°-140°	253.8	5.0
140°-150°	194.8	3.8
150°-160°	140.3	2.7
160°-170°	85.8	1.7
170°-180°	29.0	0.6
0°-30°	692.4	13.6
0°-40°	1216.5	23.8
0°-60°	2362.6	46.2
0°-90°	3142.0	61.5
90°-120°	939.9	18.4
90°-150°	1711.8	33.5
90°-180°	1967.0	38.5
0°-180°	5108.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	406	406	406	406	406	
5°	396	424	478	540	560	37
15°	296	547	922	1118	1153	82
25°	189	620	1098	1146	1148	87
35°	128	593	1034	1093	1136	80
45°	87	473	914	1047	1094	68
55°	63	300	776	901	926	57
65°	50	159	576	648	657	49
75°	37	98	316	347	349	38
85°	13	30	78	86	87	14
90°	2	6	16	8	8	3
95°	20	77	255	131	89	22
105°	70	106	430	653	609	74
115°	124	151	344	687	784	123
125°	173	194	313	529	624	154
135°	206	227	303	427	484	160
145°	239	254	300	364	393	150
155°	270	278	300	329	338	124
165°	292	296	300	311	315	82
175°	303	303	302	306	306	29
180°	303	303	303	303	303	



TEST NUMBER: P936818

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	406.0	406.0	406.0	406.0	406.0	406.0	406.0	406.0	406.0	406.0	406.0
2.5°	406.0	406.0	408.6	409.9	412.5	413.9	416.4	419.0	426.9	428.2	430.8
5°	395.6	400.8	417.7	424.2	442.5	467.3	477.8	494.8	530.1	540.4	547.0
7.5°	379.9	391.6	433.4	443.9	489.6	554.9	582.2	618.8	674.9	702.4	724.5
10°	355.1	379.9	454.3	479.1	553.5	652.8	703.7	754.5	839.4	877.2	891.7
12.5°	327.7	368.1	476.5	510.4	617.5	762.4	823.8	879.9	976.5	1027.4	1035.2
15°	296.3	351.1	497.4	547.0	685.4	853.8	921.7	990.9	1081.0	1117.5	1126.6
17.5°	268.9	338.1	516.9	569.2	737.6	936.0	1005.2	1062.7	1135.8	1160.6	1167.1
20°	234.9	317.2	530.1	597.9	792.5	996.1	1062.7	1107.1	1156.7	1172.4	1174.9
22.5°	210.1	295.0	537.9	608.3	828.9	1032.7	1088.8	1124.0	1157.9	1163.2	1164.5
25°	189.3	270.2	536.6	620.1	860.4	1054.8	1097.9	1124.0	1143.6	1146.2	1146.2
27.5°	169.7	242.9	531.3	622.7	883.8	1060.0	1094.0	1112.3	1121.4	1126.6	1126.6
30°	152.7	216.7	518.3	617.5	894.2	1054.8	1082.3	1091.3	1100.5	1108.3	1112.3
32.5°	139.7	191.9	498.7	607.0	895.5	1041.7	1061.3	1066.5	1079.6	1097.9	1104.5
35°	127.9	167.1	476.5	592.7	887.7	1020.9	1033.9	1039.2	1065.3	1092.7	1101.8
37.5°	116.2	148.8	447.8	567.9	876.0	996.1	1005.2	1014.4	1054.8	1087.5	1097.9
40°	104.4	133.2	413.9	540.4	857.7	966.1	973.9	988.3	1041.7	1079.6	1090.1
42.5°	95.3	120.1	377.3	511.8	834.2	932.1	943.8	964.8	1026.1	1066.5	1078.3
45°	87.4	107.0	338.1	472.6	804.1	896.9	913.8	942.6	1007.9	1047.0	1057.5
47.5°	79.6	97.9	297.7	432.2	771.5	861.6	883.8	916.5	983.1	1020.9	1030.0
50°	73.1	88.8	257.2	389.1	736.3	823.8	849.9	883.8	951.7	986.9	998.7
52.5°	67.9	80.9	219.3	346.0	695.8	784.6	814.6	849.9	913.8	947.8	955.6
55°	62.6	74.4	186.7	300.3	654.1	742.8	775.5	809.4	872.1	900.8	906.0
57.5°	60.1	69.2	159.3	257.2	609.7	695.8	732.4	763.7	822.4	844.6	849.9
60°	56.1	65.3	138.4	220.6	561.4	651.4	682.8	714.1	763.7	782.0	785.9
62.5°	52.3	62.6	122.7	185.3	511.8	599.2	630.5	659.3	701.1	714.1	719.4
65°	49.6	60.1	111.0	159.3	460.8	544.4	575.7	600.5	634.5	647.5	650.1
67.5°	47.0	57.4	101.9	137.0	409.9	489.6	513.1	536.6	562.7	575.7	577.0
70°	43.1	54.8	94.0	121.4	357.7	426.9	446.5	471.3	492.1	498.7	502.6
72.5°	40.5	50.9	88.8	109.7	304.2	366.8	385.1	399.4	417.7	424.2	424.2
75°	36.6	45.6	83.6	97.9	249.4	300.3	316.0	330.3	344.6	347.3	343.3
77.5°	32.6	40.5	71.8	82.2	194.5	237.6	250.7	258.5	270.2	272.9	274.2
80°	27.4	35.3	56.1	63.9	141.0	175.0	184.1	190.6	201.1	201.1	203.6
82.5°	20.8	27.4	40.5	45.6	95.3	120.1	127.9	131.9	138.4	138.4	138.4
85°	13.0	17.0	26.1	30.0	57.4	73.1	78.3	79.6	84.9	86.2	86.2
87.5°	6.5	9.1	17.0	18.3	30.0	37.8	37.8	40.5	40.5	39.1	37.8
90°	2.1	3.7	5.3	5.7	9.0	13.3	15.5	13.7	10.3	7.7	7.7
92.5°	8.1	21.9	35.9	39.3	55.2	76.5	87.1	76.4	54.8	38.7	37.1
95°	19.6	44.9	70.2	76.6	135.9	215.1	254.7	227.2	172.4	131.3	126.7
97.5°	33.8	56.1	78.4	84.1	183.1	315.2	381.2	363.9	329.2	303.2	294.3
100°	44.8	65.0	85.4	90.4	200.3	346.8	420.1	421.4	424.0	425.8	415.3
102.5°	54.1	73.1	92.0	96.7	208.2	356.8	431.1	453.2	497.4	530.5	521.4
105°	70.0	86.1	102.1	106.1	214.0	358.0	429.9	479.4	578.4	652.7	647.8
107.5°	86.4	101.3	116.2	119.9	215.1	342.0	405.5	474.5	612.7	716.2	717.4
110°	97.3	110.8	124.3	127.6	213.5	327.9	385.1	462.3	616.7	732.5	737.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	108.1	120.9	133.8	137.0	213.5	315.6	366.5	445.6	603.6	722.1	729.9
115°	124.4	136.2	148.1	151.1	215.5	301.3	344.3	420.4	572.6	686.9	697.6
117.5°	140.5	151.3	162.0	164.7	219.5	292.5	329.1	397.8	535.1	638.1	650.1
120°	149.9	160.1	170.1	172.7	222.8	289.6	323.0	385.7	511.3	605.4	617.1
122.5°	159.1	169.3	179.5	182.1	227.4	288.0	318.2	374.7	487.9	572.6	584.1
125°	173.1	182.4	191.7	194.0	233.8	286.7	313.2	361.2	457.2	529.3	539.8
127.5°	184.5	193.9	203.3	205.7	240.1	286.0	308.9	350.1	432.5	494.4	503.3
130°	190.6	200.8	210.8	213.4	244.7	286.4	307.3	344.0	417.4	472.5	480.7
132.5°	196.9	207.1	217.2	219.7	248.5	286.7	305.9	338.7	404.4	453.7	461.1
135°	206.3	215.5	224.8	227.0	252.5	286.4	303.4	330.9	385.9	427.2	433.5
137.5°	215.9	225.0	234.2	236.4	258.7	288.2	303.0	326.2	372.8	407.6	412.9
140°	223.8	232.2	240.7	242.8	262.3	288.5	301.5	321.7	361.9	392.0	396.9
142.5°	229.9	237.7	245.4	247.4	265.5	289.5	301.5	319.2	354.5	381.0	385.1
145°	239.3	246.0	252.8	254.5	269.5	289.6	299.6	314.0	342.8	364.5	367.6
147.5°	248.7	255.3	261.8	263.5	275.6	291.6	299.6	310.9	333.6	350.6	353.3
150°	254.7	260.6	266.7	268.1	278.6	292.5	299.6	309.1	328.3	342.7	344.9
152.5°	261.0	265.6	270.1	271.2	280.7	293.2	299.6	307.8	324.2	336.4	338.0
155°	270.4	273.8	277.1	277.9	285.1	294.7	299.6	306.1	319.1	328.9	330.0
157.5°	277.3	280.6	283.9	284.6	289.6	296.2	299.6	304.6	314.8	322.4	323.2
160°	282.1	284.5	287.1	287.7	291.7	296.9	299.6	303.9	312.6	319.1	319.5
162.5°	286.7	288.6	290.5	291.0	293.8	297.7	299.6	303.2	310.5	316.1	316.5
165°	291.9	293.5	295.3	295.7	297.0	298.7	299.6	302.1	307.4	311.3	311.7
167.5°	296.5	297.3	298.1	298.3	299.4	300.8	301.5	303.3	306.8	309.3	309.5
170°	299.6	300.4	301.1	301.3	301.4	301.5	301.5	303.3	306.8	309.3	309.3
172.5°	301.1	301.3	301.5	301.5	301.5	301.5	301.5	302.9	305.6	307.7	307.5
175°	303.4	303.4	303.4	303.4	302.8	301.9	301.5	302.4	304.2	305.5	305.5
177.5°	303.4	303.4	303.4	303.4	302.9	302.3	302.0	302.7	304.1	305.1	304.9
180°	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	406.0	406.0
2.5°	433.4	430.8
5°	557.4	560.1
7.5°	750.7	749.3
10°	933.5	945.1
12.5°	1066.5	1069.2
15°	1147.6	1152.7
17.5°	1178.9	1180.2
20°	1180.2	1177.5
22.5°	1165.8	1163.2
25°	1148.8	1147.6
27.5°	1133.1	1134.4
30°	1126.6	1130.6
32.5°	1126.6	1133.1
35°	1129.3	1135.8
37.5°	1127.9	1135.8
40°	1122.8	1131.9
42.5°	1108.3	1114.9
45°	1086.2	1094.0
47.5°	1057.5	1062.7
50°	1020.9	1026.1
52.5°	975.2	976.5
55°	920.3	925.6
57.5°	861.6	862.9
60°	796.3	800.3
62.5°	727.2	727.2
65°	654.1	656.6
67.5°	578.4	584.9
70°	501.3	502.6
72.5°	425.6	425.6
75°	347.3	348.6
77.5°	272.9	272.9
80°	202.3	203.6
82.5°	139.7	142.3
85°	87.4	87.4
87.5°	40.5	36.6
90°	7.7	7.7
92.5°	31.0	24.8
95°	108.0	89.4
97.5°	258.9	223.4
100°	373.0	330.7
102.5°	485.2	449.0
105°	628.4	608.9
107.5°	722.0	726.8
110°	757.8	778.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	761.1	792.2
115°	740.8	784.0
117.5°	698.0	745.9
120°	663.5	710.1
122.5°	630.0	675.9
125°	582.0	624.3
127.5°	539.0	574.6
130°	513.7	546.6
132.5°	490.5	520.1
135°	459.0	484.4
137.5°	433.6	454.5
140°	416.3	435.8
142.5°	401.9	418.7
145°	380.4	393.0
147.5°	363.8	374.3
150°	353.4	361.9
152.5°	344.4	350.8
155°	334.2	338.5
157.5°	326.1	329.1
160°	321.3	323.0
162.5°	318.1	319.7
165°	313.5	315.3
167.5°	310.2	310.9
170°	309.3	309.3
172.5°	306.9	306.3
175°	305.5	305.5
177.5°	304.2	303.4
180°	303.4	303.4



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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	6.58	7.61	7.43	8.48	9.57	19.72	20.75	20.56	21.62	22.71
	3H	7.30	8.22	8.16	9.11	10.23	21.56	22.48	22.41	23.36	24.48
	4H	7.61	8.48	8.48	9.37	10.50	22.20	23.07	23.07	23.96	25.09
	6H	7.87	8.67	8.75	9.57	10.71	22.63	23.43	23.51	24.33	25.47
	8H	7.94	8.71	8.83	9.62	10.77	22.75	23.52	23.64	24.43	25.57
	12H	7.96	8.70	8.86	9.60	10.77	22.81	23.55	23.71	24.45	25.62
4H	2H	13.79	14.67	14.67	15.55	16.68	20.02	20.89	20.89	21.78	22.91
	3H	15.38	16.11	16.27	17.03	18.18	22.06	22.80	22.95	23.71	24.86
	4H	15.48	16.15	16.38	17.06	18.24	22.83	23.50	23.73	24.41	25.58
	6H	15.50	16.08	16.42	17.02	18.19	23.36	23.94	24.28	24.88	26.05
	8H	15.48	16.03	16.40	16.96	18.15	23.52	24.06	24.44	25.00	26.19
	12H	15.45	15.94	16.39	16.89	18.08	23.62	24.11	24.55	25.06	26.25
8H	4H	16.93	17.47	17.85	18.40	19.59	22.90	23.44	23.82	24.38	25.57
	6H	17.18	17.63	18.12	18.60	19.79	23.53	23.98	24.47	24.95	26.14
	8H	17.20	17.60	18.15	18.56	19.77	23.74	24.14	24.70	25.11	26.31
	12H	17.18	17.53	18.14	18.49	19.74	23.89	24.24	24.84	25.20	26.45
12H	4H	17.08	17.57	18.02	18.52	19.71	22.86	23.35	23.80	24.30	25.50
	6H	17.44	17.84	18.39	18.80	20.00	23.51	23.91	24.47	24.88	26.08
	8H	17.51	17.87	18.47	18.82	20.08	23.74	24.09	24.70	25.05	26.31