

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: P938274

Luminaire Tested: SQ4-FB-150U-050D-940-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

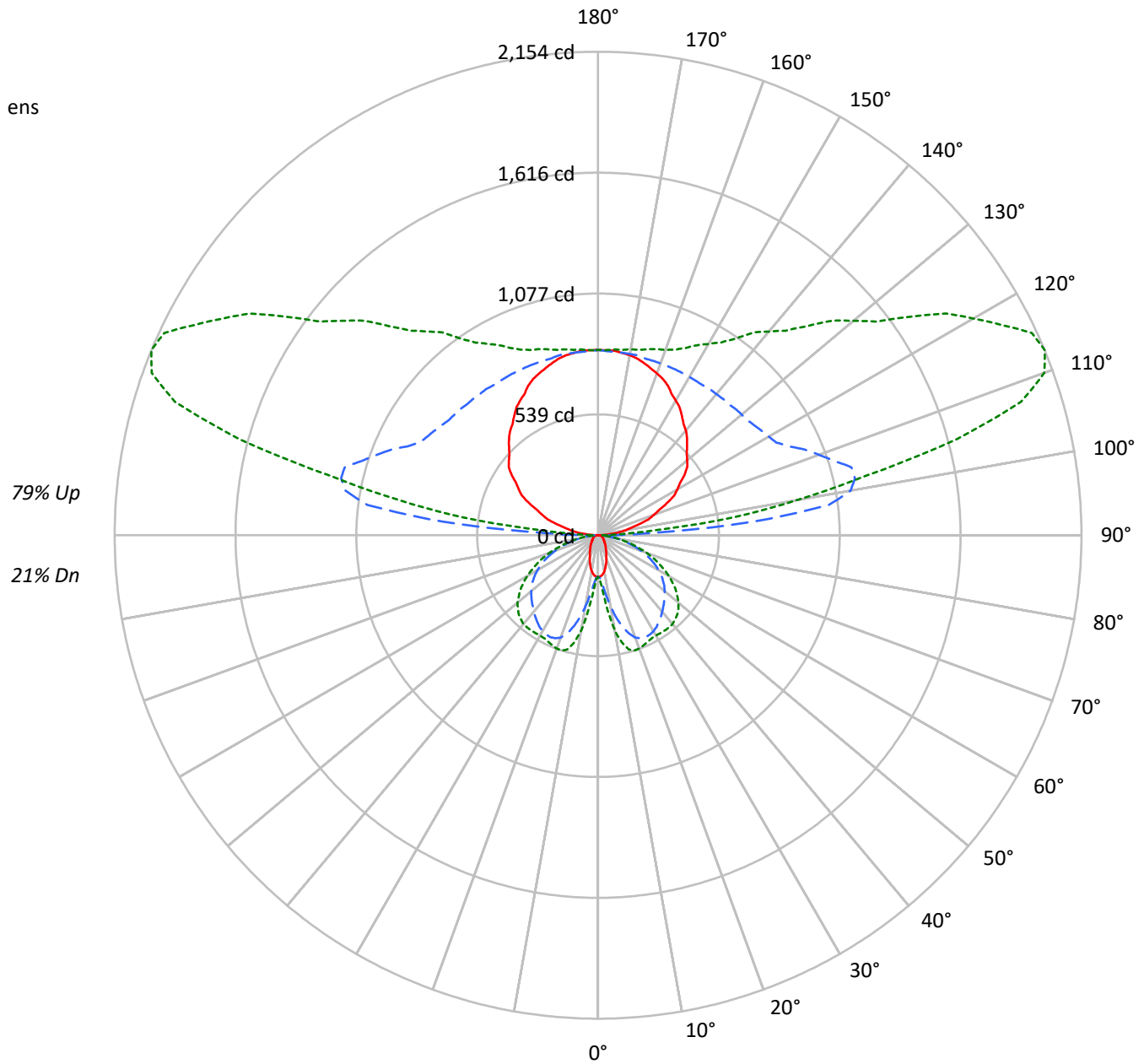
Test Method: LM-79-2019  
Report Number: P938274  
REPORT IS A COMBINATION OF REPORTS P933629 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-940-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6786.1 lumens  
Efficiency: N/A  
Efficacy: 122.1 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): 55.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



— 0°-180°    - - 45°-225°    - - - 90°-270°



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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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	17	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1719	1719	1719
5°	1678	1985	2311
10°	1521	2892	3831
15°	1290	3776	4627
20°	1050	4372	4714
25°	874	4572	4619
30°	736	4597	4610
35°	649	4517	4728
40°	566	4414	4852
45°	511	4338	4871
50°	468	4268	4790
55°	447	4169	4578
60°	455	3980	4242
65°	471	3696	3782
70°	498	3216	3196
75°	548	2615	2493
80°	585	1808	1681
85°	489	955	860

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4871 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.0	0.4
10°-20°	106.2	1.6
20°-30°	185.8	2.7
30°-40°	239.2	3.5
40°-50°	267.1	3.9
50°-60°	255.9	3.8
60°-70°	202.8	3.0
70°-80°	119.2	1.8
80°-90°	36.3	0.5
90°-100°	402.3	5.9
100°-110°	1057.6	15.6
110°-120°	1096.6	16.2
120°-130°	879.6	13.0
130°-140°	690.2	10.2
140°-150°	529.7	7.8
150°-160°	381.5	5.6
160°-170°	233.4	3.4
170°-180°	78.9	1.2
0°-30°	316.0	4.7
0°-40°	555.1	8.2
0°-60°	1078.1	15.9
0°-90°	1436.4	21.2
90°-120°	2556.5	37.7
90°-150°	4656.0	68.6
90°-180°	5350.0	78.8
0°-180°	6786.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	185	185	185	185	185	
5°	180	194	218	247	256	17
15°	135	250	421	510	526	38
25°	86	283	501	523	524	40
35°	58	270	472	499	518	36
45°	40	216	417	478	499	31
55°	29	137	354	411	422	26
65°	23	73	263	295	300	22
75°	17	45	144	158	159	17
85°	6	14	36	39	40	6
90°	6	16	42	21	21	5
95°	53	208	693	357	243	59
105°	191	289	1169	1775	1656	202
115°	338	411	937	1868	2132	334
125°	471	528	852	1439	1698	418
135°	561	618	825	1162	1318	434
145°	651	692	815	991	1069	408
155°	736	756	815	894	920	338
165°	794	804	815	847	857	224
175°	825	825	820	831	831	78
180°	825	825	825	825	825	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2
2.5°	185.2	185.2	186.5	187.0	188.3	188.9	190.0	191.2	194.8	195.4	196.6
5°	180.5	182.9	190.7	193.6	201.9	213.3	218.0	225.8	241.9	246.6	249.6
7.5°	173.3	178.8	197.8	202.6	223.4	253.2	265.7	282.4	308.0	320.5	330.6
10°	162.1	173.3	207.3	218.6	252.5	297.8	321.1	344.4	383.1	400.3	406.9
12.5°	149.5	168.0	217.5	232.9	281.8	347.9	375.9	401.6	445.6	468.9	472.4
15°	135.2	160.3	227.0	249.6	312.8	389.6	420.6	452.2	493.3	509.9	514.1
17.5°	122.7	154.3	235.9	259.7	336.6	427.1	458.7	484.9	518.2	529.6	532.5
20°	107.3	144.7	241.9	272.9	361.6	454.6	484.9	505.2	527.8	534.9	536.2
22.5°	95.9	134.6	245.4	277.6	378.3	471.2	496.8	512.9	528.4	530.8	531.4
25°	86.4	123.3	244.8	283.0	392.6	481.3	501.0	512.9	521.9	523.0	523.0
27.5°	77.4	110.8	242.4	284.2	403.3	483.7	499.2	507.6	511.8	514.1	514.1
30°	69.7	98.9	236.5	281.8	408.0	481.3	493.8	498.0	502.2	505.8	507.6
32.5°	63.8	87.6	227.6	277.0	408.7	475.3	484.3	486.7	492.7	501.0	503.9
35°	58.3	76.3	217.5	270.5	405.1	465.8	471.8	474.2	486.1	498.6	502.8
37.5°	53.0	67.9	204.3	259.1	399.7	454.6	458.7	462.9	481.3	496.2	501.0
40°	47.7	60.7	188.9	246.6	391.4	440.8	444.4	450.9	475.3	492.7	497.5
42.5°	43.5	54.8	172.2	233.5	380.7	425.4	430.7	440.3	468.2	486.7	492.0
45°	39.9	48.8	154.3	215.6	366.9	409.3	417.0	430.1	459.9	477.7	482.5
47.5°	36.3	44.7	135.9	197.2	352.1	393.2	403.3	418.2	448.6	465.8	470.0
50°	33.4	40.5	117.4	177.5	336.0	375.9	387.8	403.3	434.3	450.4	455.7
52.5°	31.0	36.9	100.1	157.9	317.5	358.0	371.7	387.8	417.0	432.5	436.1
55°	28.6	33.9	85.2	137.0	298.5	338.9	353.9	369.3	397.9	411.1	413.5
57.5°	27.4	31.6	72.6	117.4	278.2	317.5	334.2	348.5	375.3	385.4	387.8
60°	25.6	29.7	63.1	100.7	256.2	297.3	311.6	325.9	348.5	356.8	358.7
62.5°	23.8	28.6	56.0	84.6	233.5	273.4	287.7	300.9	319.9	325.9	328.2
65°	22.6	27.4	50.6	72.6	210.3	248.4	262.7	274.0	289.5	295.4	296.7
67.5°	21.5	26.2	46.4	62.5	187.0	223.4	234.1	244.8	256.7	262.7	263.3
70°	19.6	25.0	42.9	55.4	163.2	194.8	203.7	215.1	224.6	227.6	229.4
72.5°	18.5	23.3	40.5	50.1	138.8	167.4	175.7	182.3	190.7	193.6	193.6
75°	16.7	20.9	38.1	44.7	113.8	137.0	144.1	150.7	157.3	158.4	156.6
77.5°	14.9	18.5	32.8	37.6	88.8	108.4	114.4	117.9	123.3	124.5	125.1
80°	12.5	16.1	25.6	29.2	64.4	79.8	84.0	86.9	91.7	91.7	93.0
82.5°	9.5	12.5	18.5	20.9	43.5	54.8	58.3	60.2	63.1	63.1	63.1
85°	5.9	7.7	11.9	13.7	26.2	33.4	35.8	36.3	38.7	39.3	39.3
87.5°	3.0	4.2	7.7	8.3	13.7	17.3	17.3	18.5	18.5	17.8	17.3
90°	5.5	9.9	14.4	15.5	24.4	36.2	42.1	37.4	28.1	21.0	21.0
92.5°	22.1	59.8	97.5	106.9	150.2	208.1	237.0	207.7	149.2	105.2	101.1
95°	53.2	122.1	191.0	208.2	369.8	585.2	692.9	618.3	469.1	357.2	344.5
97.5°	91.9	152.7	213.6	228.7	498.1	857.3	1036.8	989.7	895.4	824.7	800.5
100°	121.8	177.0	232.1	245.9	544.8	943.3	1142.6	1146.1	1153.0	1158.1	1129.4
102.5°	147.3	198.8	250.2	263.1	566.3	970.4	1172.5	1232.5	1352.7	1442.8	1418.2
105°	190.6	234.2	277.7	288.6	582.1	973.4	1169.1	1303.8	1573.1	1775.1	1761.9
107.5°	234.9	275.5	316.1	326.3	585.1	930.2	1102.7	1290.5	1666.2	1947.9	1951.1
110°	264.7	301.4	338.2	347.3	580.7	891.7	1047.3	1257.3	1677.3	1992.2	2006.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	294.1	329.1	364.1	372.8	580.8	858.3	997.0	1211.9	1641.6	1964.0	1985.1
115°	338.4	370.7	402.9	411.0	586.2	819.8	936.6	1143.6	1557.6	1868.2	1897.6
117.5°	382.2	411.5	440.8	448.1	597.1	795.7	895.0	1081.9	1455.5	1735.8	1768.4
120°	407.6	435.2	462.7	469.7	605.9	787.6	878.4	1049.1	1390.5	1646.6	1678.2
122.5°	432.5	460.3	488.2	495.1	618.7	783.4	865.7	1019.4	1326.8	1557.5	1588.6
125°	470.8	496.1	521.5	527.8	635.8	779.8	851.9	982.4	1243.6	1439.4	1468.2
127.5°	501.8	527.4	553.0	559.4	652.9	777.8	840.2	952.4	1176.6	1344.8	1369.0
130°	518.4	545.9	573.5	580.4	665.6	779.0	835.8	935.6	1135.2	1284.9	1307.3
132.5°	535.6	563.2	590.7	597.6	675.7	779.8	831.9	921.2	1100.0	1234.0	1254.0
135°	561.0	586.2	611.2	617.5	686.8	779.0	825.2	900.1	1049.7	1161.9	1179.3
137.5°	587.1	611.9	636.8	643.0	703.4	783.9	824.2	887.4	1013.9	1108.8	1123.0
140°	608.7	631.6	654.5	660.2	713.6	784.7	820.2	874.9	984.2	1066.1	1079.4
142.5°	625.3	646.5	667.6	672.9	722.0	787.5	820.2	868.3	964.3	1036.3	1047.7
145°	650.8	669.3	687.7	692.3	733.1	787.6	814.7	854.0	932.5	991.4	1000.0
147.5°	676.2	694.2	712.2	716.7	749.4	793.0	814.7	845.6	907.4	953.7	960.8
150°	692.9	709.2	725.3	729.4	757.8	795.7	814.7	840.8	893.0	932.1	937.9
152.5°	710.0	722.4	734.6	737.8	763.4	797.6	814.7	837.0	881.6	915.0	919.3
155°	735.5	744.7	753.7	756.0	775.6	801.7	814.7	832.5	867.9	894.5	897.4
157.5°	754.4	763.2	772.0	774.2	787.7	805.8	814.7	828.5	856.0	876.7	878.8
160°	767.1	774.0	780.9	782.6	793.3	807.6	814.7	826.6	850.2	867.8	869.0
162.5°	779.8	785.0	790.1	791.5	799.2	809.6	814.7	824.7	844.7	859.6	860.6
165°	793.7	798.3	803.0	804.2	807.7	812.4	814.7	821.8	836.1	846.8	848.0
167.5°	806.4	808.6	810.8	811.4	814.3	818.3	820.2	825.0	834.3	841.3	841.8
170°	814.7	817.0	819.2	819.7	819.9	820.2	820.2	825.0	834.3	841.3	841.3
172.5°	819.2	819.6	820.2	820.2	820.2	820.2	820.2	824.0	831.3	836.9	836.4
175°	825.2	825.2	825.2	825.2	823.5	821.3	820.2	822.6	827.3	830.8	830.8
177.5°	825.2	825.2	825.2	825.2	824.0	822.3	821.4	823.3	826.9	829.7	829.1
180°	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	185.2	185.2
2.5°	197.8	196.6
5°	254.4	255.6
7.5°	342.5	342.0
10°	426.0	431.3
12.5°	486.7	487.9
15°	523.7	526.1
17.5°	538.0	538.6
20°	538.6	537.3
22.5°	532.0	530.8
25°	524.3	523.7
27.5°	517.1	517.7
30°	514.1	515.9
32.5°	514.1	517.1
35°	515.3	518.2
37.5°	514.7	518.2
40°	512.3	516.5
42.5°	505.8	508.7
45°	495.6	499.2
47.5°	482.5	484.9
50°	465.8	468.2
52.5°	445.0	445.6
55°	420.0	422.3
57.5°	393.2	393.7
60°	363.4	365.1
62.5°	331.8	331.8
65°	298.5	299.6
67.5°	263.9	266.8
70°	228.7	229.4
72.5°	194.2	194.2
75°	158.4	159.0
77.5°	124.5	124.5
80°	92.4	93.0
82.5°	63.8	64.9
85°	39.9	39.9
87.5°	18.5	16.7
90°	21.0	21.0
92.5°	84.3	67.6
95°	293.8	243.1
97.5°	704.1	607.6
100°	1014.5	899.5
102.5°	1319.7	1221.3
105°	1709.0	1656.0
107.5°	1963.9	1976.7
110°	2061.1	2116.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2069.8	2154.5
115°	2015.0	2132.4
117.5°	1898.5	2028.7
120°	1804.8	1931.3
122.5°	1713.5	1838.2
125°	1583.1	1698.1
127.5°	1466.0	1563.0
130°	1396.9	1486.5
132.5°	1334.2	1414.5
135°	1248.4	1317.6
137.5°	1179.6	1236.2
140°	1132.3	1185.2
142.5°	1093.2	1138.7
145°	1034.5	1069.0
147.5°	989.4	1018.0
150°	961.1	984.2
152.5°	936.8	954.2
155°	909.0	920.5
157.5°	886.8	895.0
160°	873.7	878.4
162.5°	865.1	869.5
165°	852.7	857.4
167.5°	843.8	845.7
170°	841.3	841.3
172.5°	834.7	833.0
175°	830.8	830.8
177.5°	827.2	825.2
180°	825.2	825.2



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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	0.00	0.00	0.46	1.11	2.74	12.44	13.10	13.60	14.26	15.89
	3H	0.00	0.58	1.16	1.74	3.39	14.25	14.84	15.42	16.00	17.65
	4H	0.28	0.84	1.46	2.00	3.65	14.87	15.44	16.05	16.60	18.25
	6H	0.52	1.04	1.71	2.20	3.86	15.28	15.80	16.47	16.96	18.62
	8H	0.58	1.08	1.77	2.25	3.90	15.39	15.88	16.58	17.06	18.71
	12H	0.59	1.06	1.78	2.23	3.91	15.44	15.91	16.64	17.09	18.76
4H	2H	6.46	7.03	7.65	8.19	9.84	12.69	13.26	13.88	14.42	16.07
	3H	8.02	8.49	9.21	9.68	11.34	14.70	15.17	15.90	16.36	18.02
	4H	8.10	8.54	9.30	9.71	11.39	15.45	15.89	16.64	17.06	18.74
	6H	8.10	8.48	9.30	9.67	11.34	15.96	16.34	17.16	17.53	19.20
	8H	8.07	8.42	9.27	9.61	11.30	16.11	16.46	17.31	17.65	19.34
	12H	8.02	8.34	9.23	9.54	11.22	16.19	16.51	17.40	17.70	19.39
8H	4H	9.52	9.87	10.72	11.06	12.74	15.49	15.84	16.69	17.03	18.71
	6H	9.75	10.04	10.97	11.27	12.95	16.10	16.39	17.32	17.62	19.30
	8H	9.77	10.02	10.99	11.23	12.93	16.31	16.56	17.53	17.77	19.47
	12H	9.73	9.95	10.95	11.15	12.88	16.44	16.66	17.66	17.86	19.59
12H	4H	9.65	9.97	10.86	11.17	12.85	15.43	15.75	16.65	16.95	18.64
	6H	10.00	10.26	11.23	11.46	13.16	16.08	16.33	17.30	17.54	19.24
	8H	10.06	10.28	11.29	11.49	13.22	16.29	16.51	17.52	17.72	19.45