

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: P937518

Luminaire Tested: SQ4-FB-100U-075D-840-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937518
REPORT IS A COMBINATION OF REPORTS P933566 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

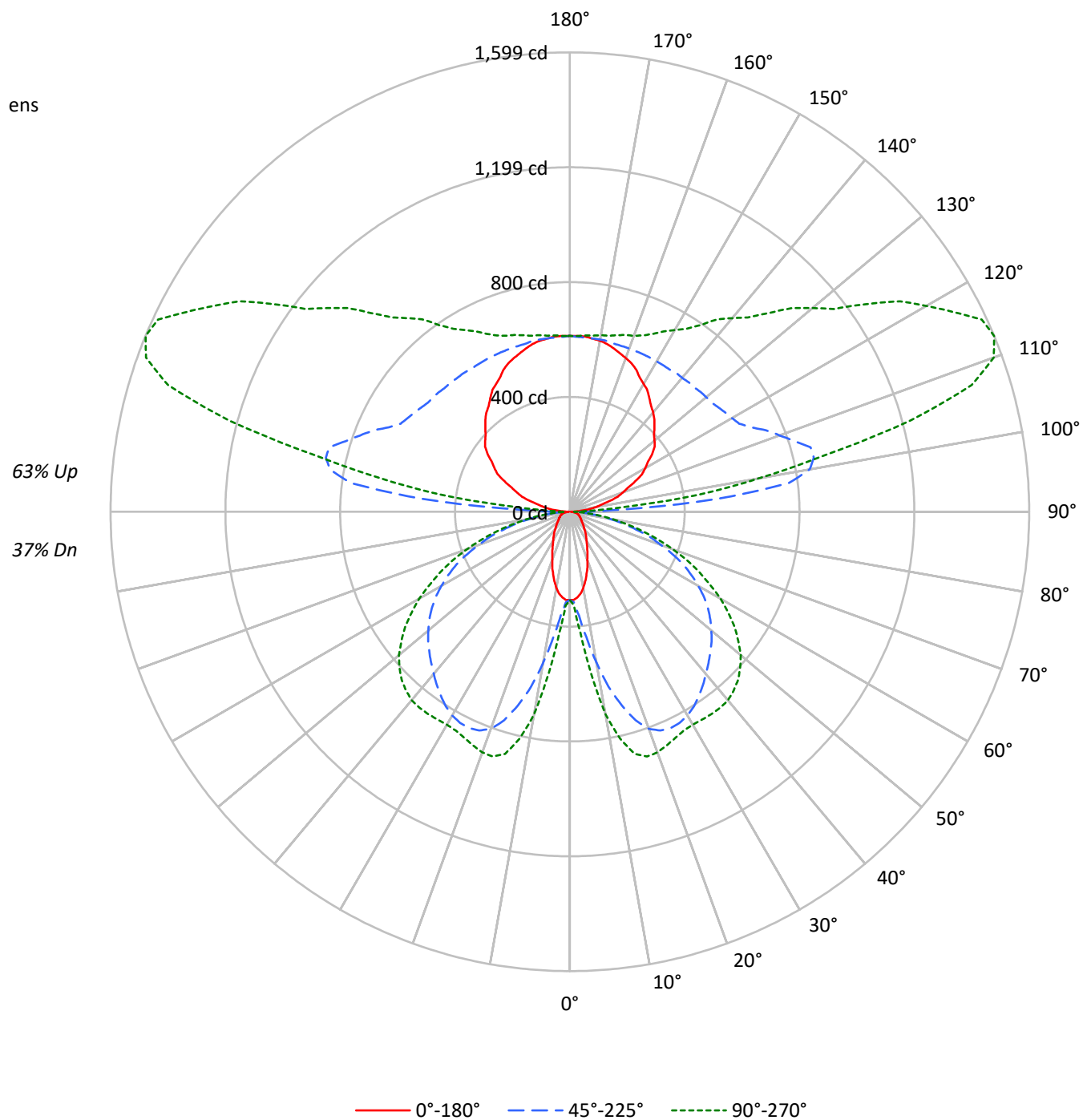
Lumens per Lamp: N/A
Luminaire Lumens: 6348.8 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 49.2
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
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37		
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31		
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25		
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21		
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17		
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15		
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13		
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11		
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10		
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9		
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2852	2852	2852
5°	2783	3293	3833
10°	2521	4796	6354
15°	2140	6262	7672
20°	1740	7251	7819
25°	1450	7583	7660
30°	1221	7625	7645
35°	1078	7492	7844
40°	937	7321	8048
45°	848	7194	8079
50°	775	7079	7946
55°	740	6913	7593
60°	756	6600	7036
65°	781	6129	6273
70°	828	5335	5300
75°	908	4338	4136
80°	969	2998	2786
85°	820	1583	1426

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8079 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.7	0.6
10°-20°	176.2	2.8
20°-30°	308.1	4.9
30°-40°	396.6	6.2
40°-50°	443.0	7.0
50°-60°	424.3	6.7
60°-70°	336.3	5.3
70°-80°	197.7	3.1
80°-90°	57.3	0.9
90°-100°	298.5	4.7
100°-110°	784.7	12.4
110°-120°	813.7	12.8
120°-130°	652.6	10.3
130°-140°	512.1	8.1
140°-150°	393.1	6.2
150°-160°	283.1	4.5
160°-170°	173.2	2.7
170°-180°	58.5	0.9
0°-30°	524.0	8.3
0°-40°	920.7	14.5
0°-60°	1788.1	28.2
0°-90°	2379.3	37.5
90°-120°	1896.8	29.9
90°-150°	3454.6	54.4
90°-180°	3969.0	62.5
0°-180°	6348.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	307	307	307	307	307	
5°	299	321	362	409	424	28
15°	224	414	698	846	872	62
25°	143	469	831	868	868	66
35°	97	449	782	827	860	60
45°	66	358	692	792	828	51
55°	47	227	587	682	700	43
65°	38	120	436	490	497	37
75°	28	74	239	263	264	29
85°	10	23	59	65	66	10
90°	4	12	31	16	16	4
95°	39	154	514	265	180	44
105°	141	214	868	1317	1229	150
115°	251	305	695	1386	1582	248
125°	349	392	632	1068	1260	310
135°	416	458	612	862	978	322
145°	483	514	605	736	793	303
155°	546	561	605	664	683	251
165°	589	597	605	628	636	166
175°	612	612	609	616	616	58
180°	612	612	612	612	612	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3
2.5°	307.3	307.3	309.2	310.2	312.2	313.2	315.2	317.1	323.1	324.1	326.0
5°	299.4	303.3	316.2	321.1	334.9	353.7	361.6	374.5	401.1	409.0	414.0
7.5°	287.5	296.4	328.0	335.9	370.5	419.9	440.6	468.3	510.8	531.5	548.3
10°	268.7	287.5	343.8	362.6	418.9	494.0	532.5	571.1	635.3	663.9	674.8
12.5°	248.0	278.6	360.6	386.3	467.3	577.0	623.4	665.9	739.0	777.6	783.5
15°	224.3	265.8	376.4	414.0	518.7	646.2	697.5	749.9	818.1	845.7	852.6
17.5°	203.5	255.9	391.2	430.8	558.2	708.4	760.8	804.2	859.6	878.3	883.3
20°	177.8	240.1	401.1	452.5	599.7	753.8	804.2	837.8	875.4	887.2	889.2
22.5°	159.1	223.3	407.1	460.4	627.4	781.5	824.0	850.7	876.4	880.3	881.3
25°	143.3	204.5	406.1	469.3	651.1	798.3	830.9	850.7	865.5	867.5	867.5
27.5°	128.4	183.8	402.1	471.3	668.9	802.3	827.9	841.8	848.7	852.6	852.6
30°	115.6	164.0	392.2	467.3	676.8	798.3	819.1	826.0	832.9	838.8	841.8
32.5°	105.7	145.2	377.4	459.4	677.8	788.4	803.2	807.2	817.1	830.9	835.8
35°	96.8	126.5	360.6	448.6	671.8	772.6	782.5	786.4	806.2	827.0	833.9
37.5°	87.9	112.6	338.9	429.8	662.9	753.8	760.8	767.7	798.3	823.0	830.9
40°	79.0	100.8	313.2	409.0	649.1	731.1	737.0	747.9	788.4	817.1	825.0
42.5°	72.1	90.9	285.5	387.3	631.3	705.4	714.3	730.1	776.6	807.2	816.1
45°	66.2	81.0	255.9	357.7	608.6	678.8	691.6	713.3	762.7	792.4	800.3
47.5°	60.3	74.1	225.3	327.0	583.9	652.1	668.9	693.6	744.0	772.6	779.5
50°	55.3	67.2	194.6	294.4	557.2	623.4	643.2	668.9	720.3	746.9	755.8
52.5°	51.4	61.3	166.0	261.8	526.6	593.8	616.5	643.2	691.6	717.3	723.2
55°	47.4	56.3	141.3	227.2	495.0	562.2	586.9	612.6	660.0	681.7	685.7
57.5°	45.4	52.4	120.5	194.6	461.4	526.6	554.3	578.0	622.4	639.2	643.2
60°	42.5	49.4	104.7	167.0	424.8	493.0	516.7	540.4	578.0	591.8	594.8
62.5°	39.5	47.4	92.9	140.3	387.3	453.5	477.2	498.9	530.6	540.4	544.4
65°	37.5	45.4	84.0	120.5	348.8	412.0	435.7	454.5	480.2	490.0	492.0
67.5°	35.6	43.5	77.1	103.7	310.2	370.5	388.3	406.1	425.8	435.7	436.7
70°	32.6	41.5	71.1	91.9	270.7	323.1	337.9	356.7	372.5	377.4	380.4
72.5°	30.6	38.5	67.2	83.0	230.2	277.6	291.5	302.3	316.2	321.1	321.1
75°	27.7	34.6	63.2	74.1	188.7	227.2	239.1	250.0	260.8	262.8	259.8
77.5°	24.7	30.6	54.3	62.2	147.2	179.8	189.7	195.6	204.5	206.5	207.5
80°	20.7	26.7	42.5	48.4	106.7	132.4	139.3	144.2	152.2	152.2	154.1
82.5°	15.8	20.7	30.6	34.6	72.1	90.9	96.8	99.8	104.7	104.7	104.7
85°	9.9	12.8	19.8	22.7	43.5	55.3	59.3	60.3	64.2	65.2	65.2
87.5°	4.9	6.9	12.8	13.8	22.7	28.7	28.7	30.6	30.6	29.6	28.7
90°	4.1	7.4	10.7	11.5	18.1	26.9	31.2	27.8	20.8	15.6	15.6
92.5°	16.4	44.4	72.3	79.3	111.5	154.4	175.9	154.1	110.7	78.1	75.0
95°	39.4	90.6	141.8	154.5	274.4	434.1	514.1	458.7	348.1	265.1	255.7
97.5°	68.2	113.3	158.5	169.7	369.6	636.1	769.3	734.3	664.3	611.9	594.0
100°	90.4	131.3	172.2	182.5	404.3	700.0	847.8	850.4	855.4	859.3	837.9
102.5°	109.3	147.5	185.6	195.2	420.2	720.1	870.0	914.6	1003.7	1070.5	1052.2
105°	141.4	173.7	206.0	214.1	432.0	722.3	867.6	967.4	1167.2	1317.1	1307.3
107.5°	174.3	204.4	234.6	242.1	434.1	690.1	818.2	957.6	1236.3	1445.3	1447.7
110°	196.4	223.7	250.9	257.7	430.8	661.7	777.1	932.9	1244.5	1478.1	1488.4

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	218.2	244.1	270.0	276.5	431.0	636.8	739.7	899.2	1218.0	1457.2	1472.9
115°	251.1	275.0	298.9	304.9	434.9	608.3	695.0	848.6	1155.8	1386.2	1407.9
117.5°	283.6	305.3	327.0	332.5	443.0	590.4	664.1	802.8	1080.0	1288.0	1312.1
120°	302.4	322.9	343.3	348.5	449.5	584.4	651.8	778.4	1031.8	1221.8	1245.3
122.5°	321.0	341.7	362.3	367.4	459.0	581.2	642.3	756.3	984.4	1155.6	1178.7
125°	349.4	368.1	386.9	391.6	471.8	578.6	632.0	728.9	922.7	1068.0	1089.4
127.5°	372.3	391.2	410.3	415.1	484.5	577.1	623.4	706.6	873.0	997.8	1015.8
130°	384.6	405.1	425.5	430.7	493.8	578.1	620.2	694.3	842.4	953.4	970.0
132.5°	397.4	417.8	438.3	443.4	501.3	578.6	617.2	683.5	816.1	915.6	930.5
135°	416.3	434.9	453.6	458.2	509.6	578.1	612.4	667.9	778.8	862.1	875.0
137.5°	435.6	454.1	472.5	477.1	521.9	581.6	611.5	658.4	752.3	822.7	833.2
140°	451.6	468.6	485.6	489.9	529.5	582.2	608.6	649.1	730.2	791.1	800.9
142.5°	464.0	479.7	495.4	499.3	535.8	584.3	608.6	644.2	715.4	768.9	777.4
145°	482.8	496.6	510.2	513.7	544.0	584.4	604.6	633.7	691.9	735.6	742.0
147.5°	501.8	515.1	528.4	531.7	556.0	588.4	604.6	627.5	673.3	707.7	713.0
150°	514.1	526.1	538.2	541.2	562.4	590.5	604.6	623.9	662.6	691.6	695.8
152.5°	526.8	535.9	545.1	547.4	566.4	591.8	604.6	621.1	654.1	678.9	682.1
155°	545.8	552.5	559.3	561.0	575.5	594.9	604.6	617.7	644.0	663.6	665.8
157.5°	559.7	566.3	572.8	574.5	584.5	597.8	604.6	614.7	635.2	650.5	652.0
160°	569.2	574.3	579.4	580.6	588.7	599.2	604.6	613.4	630.8	644.0	644.9
162.5°	578.6	582.4	586.3	587.3	593.0	600.7	604.6	612.0	626.7	637.8	638.5
165°	588.8	592.3	595.8	596.7	599.3	602.8	604.6	609.9	620.5	628.4	629.3
167.5°	598.3	600.0	601.7	602.1	604.3	607.1	608.6	612.1	619.0	624.2	624.6
170°	604.6	606.1	607.8	608.2	608.3	608.5	608.6	612.1	619.0	624.2	624.2
172.5°	607.8	608.2	608.5	608.6	608.6	608.6	608.6	611.4	616.8	621.0	620.7
175°	612.4	612.4	612.4	612.4	611.1	609.4	608.6	610.4	613.8	616.4	616.4
177.5°	612.4	612.4	612.4	612.4	611.4	610.1	609.4	610.8	613.5	615.6	615.2
180°	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	307.3	307.3
2.5°	328.0	326.0
5°	421.9	423.9
7.5°	568.1	567.1
10°	706.4	715.3
12.5°	807.2	809.2
15°	868.5	872.4
17.5°	892.2	893.2
20°	893.2	891.2
22.5°	882.3	880.3
25°	869.4	868.5
27.5°	857.6	858.6
30°	852.6	855.6
32.5°	852.6	857.6
35°	854.6	859.6
37.5°	853.6	859.6
40°	849.7	856.6
42.5°	838.8	843.8
45°	822.0	827.9
47.5°	800.3	804.2
50°	772.6	776.6
52.5°	738.0	739.0
55°	696.5	700.5
57.5°	652.1	653.1
60°	602.7	605.6
62.5°	550.3	550.3
65°	495.0	497.0
67.5°	437.7	442.6
70°	379.4	380.4
72.5°	322.1	322.1
75°	262.8	263.8
77.5°	206.5	206.5
80°	153.1	154.1
82.5°	105.7	107.7
85°	66.2	66.2
87.5°	30.6	27.7
90°	15.6	15.6
92.5°	62.5	50.1
95°	218.1	180.4
97.5°	522.4	450.8
100°	752.7	667.4
102.5°	979.2	906.2
105°	1268.0	1228.8
107.5°	1457.2	1466.7
110°	1529.3	1570.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1535.7	1598.6
115°	1495.0	1582.2
117.5°	1408.7	1505.3
120°	1339.1	1433.0
122.5°	1271.4	1363.9
125°	1174.6	1260.0
127.5°	1087.8	1159.7
130°	1036.5	1103.0
132.5°	990.0	1049.6
135°	926.2	977.6
137.5°	875.3	917.3
140°	840.2	879.4
142.5°	811.1	844.9
145°	767.6	793.2
147.5°	734.2	755.3
150°	713.0	730.2
152.5°	695.1	708.1
155°	674.4	683.0
157.5°	658.1	664.1
160°	648.3	651.8
162.5°	641.9	645.2
165°	632.7	636.2
167.5°	626.0	627.5
170°	624.2	624.2
172.5°	619.4	618.1
175°	616.4	616.4
177.5°	613.8	612.4
180°	612.4	612.4

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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	3.36	4.15	4.41	5.21	6.64	16.50	17.29	17.55	18.35	19.78
	3H	4.06	4.77	5.12	5.84	7.29	18.32	19.03	19.38	20.09	21.55
	4H	4.36	5.03	5.43	6.10	7.56	18.95	19.62	20.02	20.69	22.15
	6H	4.61	5.22	5.69	6.30	7.77	19.37	19.98	20.45	21.06	22.53
	8H	4.67	5.26	5.76	6.35	7.82	19.48	20.07	20.56	21.16	22.62
	12H	4.69	5.24	5.78	6.33	7.82	19.54	20.10	20.63	21.18	22.67
4H	2H	10.54	11.21	11.62	12.28	13.75	16.77	17.44	17.85	18.51	19.97
	3H	12.11	12.67	13.19	13.76	15.24	18.79	19.35	19.88	20.45	21.93
	4H	12.20	12.71	13.29	13.80	15.30	19.55	20.06	20.64	21.15	22.64
	6H	12.21	12.65	13.31	13.76	15.25	20.07	20.51	21.17	21.62	23.11
	8H	12.18	12.59	13.28	13.70	15.20	20.22	20.63	21.32	21.74	23.24
	12H	12.13	12.51	13.25	13.62	15.14	20.30	20.68	21.42	21.79	23.30
8H	4H	13.63	14.04	14.73	15.14	16.65	19.60	20.01	20.70	21.12	22.62
	6H	13.87	14.21	14.99	15.35	16.86	20.21	20.56	21.34	21.70	23.20
	8H	13.88	14.18	15.01	15.31	16.83	20.42	20.72	21.55	21.85	23.37
	12H	13.85	14.11	14.98	15.23	16.79	20.56	20.82	21.69	21.94	23.50
12H	4H	13.76	14.14	14.88	15.25	16.77	19.55	19.92	20.67	21.04	22.55
	6H	14.12	14.42	15.25	15.55	17.07	20.20	20.50	21.33	21.62	23.14
	8H	14.19	14.45	15.32	15.57	17.13	20.41	20.68	21.55	21.80	23.36