

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: P937457

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937457
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

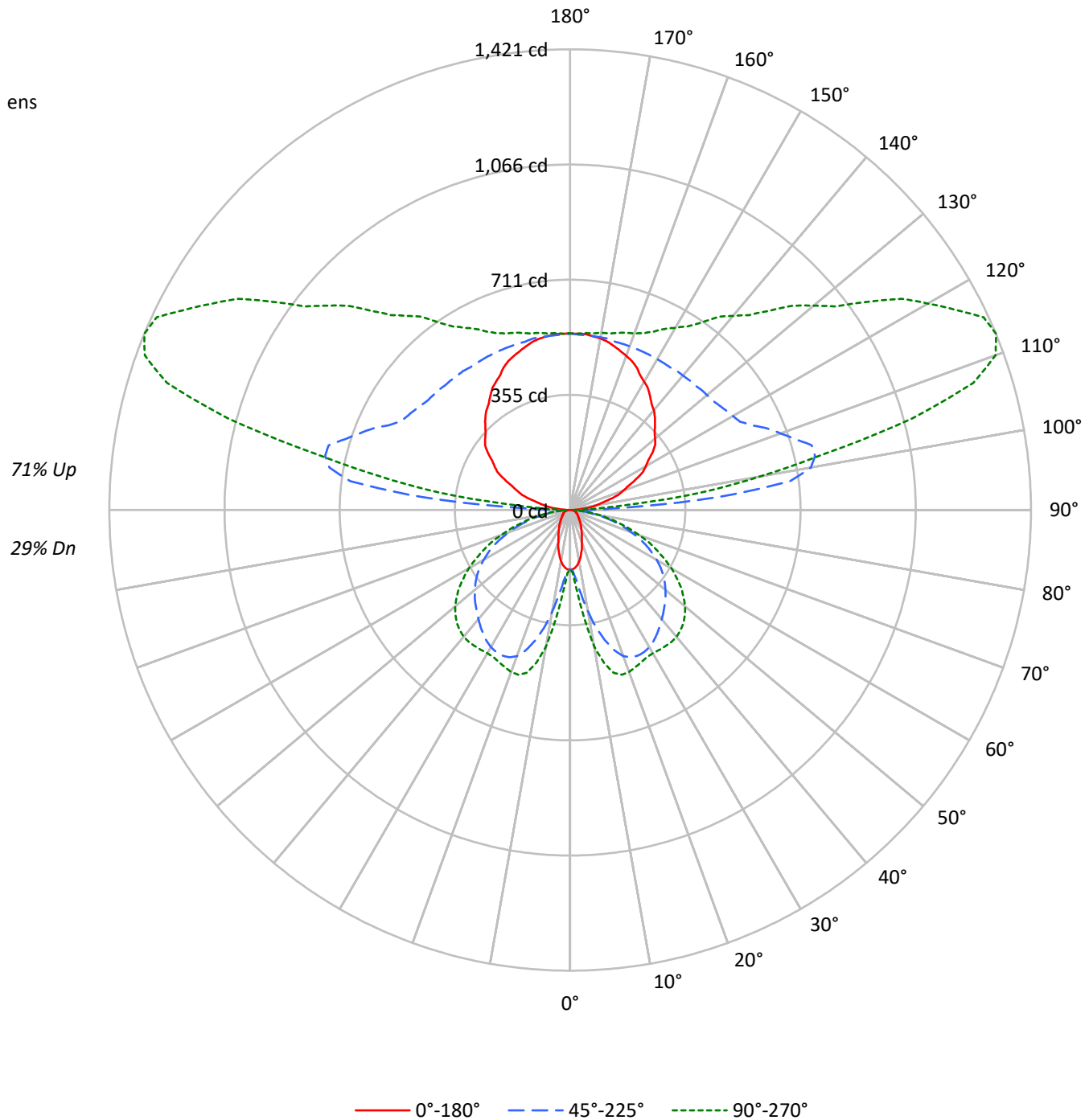
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4948.3 lumens
Efficiency: N/A
Efficacy: 120.1 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): 41.2
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1700	1700	1700
5°	1660	1963	2286
10°	1504	2861	3789
15°	1277	3735	4576
20°	1038	4324	4663
25°	865	4522	4568
30°	728	4547	4560
35°	642	4468	4677
40°	560	4367	4799
45°	504	4291	4818
50°	463	4222	4738
55°	442	4123	4528
60°	450	3937	4197
65°	467	3655	3740
70°	493	3181	3161
75°	541	2586	2466
80°	580	1788	1663
85°	489	945	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.7	0.5
10°-20°	105.1	2.1
20°-30°	183.8	3.7
30°-40°	236.5	4.8
40°-50°	264.2	5.3
50°-60°	253.1	5.1
60°-70°	200.5	4.1
70°-80°	117.9	2.4
80°-90°	34.8	0.7
90°-100°	265.3	5.4
100°-110°	697.6	14.1
110°-120°	723.3	14.6
120°-130°	580.2	11.7
130°-140°	455.2	9.2
140°-150°	349.4	7.1
150°-160°	251.6	5.1
160°-170°	154.0	3.1
170°-180°	52.0	1.1
0°-30°	312.5	6.3
0°-40°	549.1	11.1
0°-60°	1066.3	21.5
0°-90°	1419.6	28.7
90°-120°	1686.2	34.1
90°-150°	3071.0	62.1
90°-180°	3529.0	71.3
0°-180°	4948.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	183	183	183	183	183	
5°	179	192	216	244	253	16
15°	134	247	416	504	520	37
25°	86	280	496	517	518	39
35°	58	268	467	493	513	36
45°	39	213	412	472	494	31
55°	28	136	350	407	418	26
65°	22	72	260	292	296	22
75°	16	44	142	157	157	17
85°	6	14	35	39	39	6
90°	4	10	28	14	14	3
95°	35	137	457	236	160	39
105°	126	190	771	1171	1092	133
115°	223	271	618	1232	1406	220
125°	311	348	562	949	1120	276
135°	370	407	544	766	869	286
145°	429	457	537	654	705	269
155°	485	499	537	590	607	223
165°	524	530	537	559	566	148
175°	544	544	541	548	548	52
180°	544	544	544	544	544	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2
2.5°	183.2	183.2	184.4	185.0	186.2	186.8	188.0	189.1	192.7	193.2	194.5
5°	178.6	180.9	188.6	191.5	199.7	211.0	215.6	223.4	239.2	243.9	246.9
7.5°	171.4	176.8	195.6	200.3	221.0	250.4	262.8	279.3	304.6	317.0	327.0
10°	160.3	171.4	205.1	216.2	249.8	294.6	317.6	340.6	378.9	395.9	402.4
12.5°	147.9	166.2	215.1	230.4	278.7	344.1	371.8	397.2	440.7	463.7	467.3
15°	133.8	158.5	224.5	246.9	309.3	385.3	416.0	447.2	487.9	504.3	508.4
17.5°	121.4	152.6	233.4	256.9	332.9	422.5	453.7	479.6	512.6	523.8	526.7
20°	106.1	143.2	239.2	269.9	357.6	449.6	479.6	499.7	522.1	529.1	530.3
22.5°	94.9	133.2	242.8	274.6	374.2	466.0	491.4	507.3	522.6	525.0	525.6
25°	85.5	122.0	242.1	279.9	388.3	476.0	495.5	507.3	516.2	517.3	517.3
27.5°	76.6	109.6	239.8	281.1	398.9	478.4	493.8	502.0	506.2	508.4	508.4
30°	68.9	97.8	233.9	278.7	403.6	476.0	488.4	492.6	496.7	500.3	502.0
32.5°	63.1	86.6	225.1	273.9	404.2	470.2	479.0	481.4	487.3	495.5	498.4
35°	57.7	75.4	215.1	267.5	400.7	460.8	466.6	469.0	480.8	493.2	497.3
37.5°	52.4	67.2	202.1	256.3	395.3	449.6	453.7	457.9	476.0	490.8	495.5
40°	47.2	60.1	186.8	243.9	387.2	436.0	439.6	446.0	470.2	487.3	492.0
42.5°	43.0	54.2	170.3	231.0	376.5	420.7	426.0	435.5	463.1	481.4	486.7
45°	39.4	48.3	152.6	213.3	362.9	404.8	412.5	425.4	454.9	472.5	477.3
47.5°	35.9	44.2	134.4	195.1	348.2	388.9	398.9	413.6	443.7	460.8	464.9
50°	33.0	40.1	116.1	175.6	332.3	371.8	383.6	398.9	429.6	445.5	450.7
52.5°	30.7	36.5	99.0	156.2	314.1	354.1	367.7	383.6	412.5	427.7	431.3
55°	28.3	33.6	84.2	135.5	295.2	335.2	350.0	365.3	393.6	406.6	408.9
57.5°	27.1	31.3	71.8	116.1	275.2	314.1	330.5	344.6	371.2	381.2	383.6
60°	25.3	29.4	62.4	99.6	253.4	294.1	308.2	322.3	344.6	352.9	354.7
62.5°	23.5	28.3	55.4	83.7	231.0	270.4	284.6	297.6	316.4	322.3	324.6
65°	22.4	27.1	50.1	71.8	208.0	245.7	259.8	271.0	286.3	292.2	293.4
67.5°	21.3	25.9	45.9	61.8	185.0	221.0	231.5	242.1	253.9	259.8	260.4
70°	19.4	24.8	42.4	54.8	161.4	192.7	201.5	212.7	222.1	225.1	226.9
72.5°	18.3	23.0	40.1	49.5	137.3	165.6	173.8	180.3	188.6	191.5	191.5
75°	16.5	20.6	37.7	44.2	112.5	135.5	142.5	149.0	155.5	156.7	154.9
77.5°	14.8	18.3	32.4	37.2	87.8	107.2	113.1	116.6	122.0	123.1	123.8
80°	12.4	15.9	25.3	28.9	63.7	79.0	83.1	86.0	90.7	90.7	92.0
82.5°	9.4	12.4	18.3	20.6	43.0	54.2	57.7	59.5	62.4	62.4	62.4
85°	5.9	7.6	11.8	13.5	25.9	33.0	35.4	35.9	38.3	38.9	38.9
87.5°	3.0	4.1	7.6	8.3	13.5	17.1	17.1	18.3	18.3	17.7	17.1
90°	3.7	6.6	9.5	10.2	16.1	23.9	27.8	24.7	18.5	13.9	13.9
92.5°	14.6	39.4	64.3	70.5	99.2	137.3	156.3	137.0	98.4	69.4	66.7
95°	35.0	80.5	126.0	137.4	243.9	385.9	457.0	407.8	309.4	235.6	227.3
97.5°	60.6	100.7	140.9	150.9	328.6	565.5	683.8	652.8	590.6	543.9	528.0
100°	80.4	116.7	153.1	162.2	359.4	622.3	753.7	756.0	760.4	763.9	744.9
102.5°	97.1	131.1	165.0	173.6	373.5	640.1	773.4	813.0	892.3	951.6	935.4
105°	125.7	154.4	183.1	190.3	384.0	642.1	771.2	860.0	1037.6	1170.9	1162.2
107.5°	154.9	181.7	208.5	215.2	385.9	613.5	727.3	851.2	1099.0	1284.9	1287.0
110°	174.6	198.8	223.0	229.1	382.9	588.2	690.8	829.3	1106.3	1314.0	1323.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	194.0	217.0	240.0	245.8	383.1	566.1	657.6	799.3	1082.8	1295.4	1309.4
115°	223.2	244.4	265.7	271.0	386.6	540.8	617.8	754.4	1027.4	1232.3	1251.6
117.5°	252.1	271.4	290.7	295.5	393.8	524.9	590.4	713.6	960.1	1145.0	1166.4
120°	268.8	287.0	305.2	309.8	399.6	519.5	579.4	692.0	917.2	1086.1	1107.0
122.5°	285.4	303.7	322.1	326.6	408.1	516.7	571.0	672.3	875.1	1027.3	1047.8
125°	310.6	327.3	343.9	348.2	419.4	514.3	561.8	648.0	820.2	949.4	968.4
127.5°	330.9	347.8	364.8	369.0	430.7	513.0	554.2	628.2	776.1	887.0	903.0
130°	341.9	360.1	378.3	382.9	439.0	513.9	551.3	617.2	748.8	847.6	862.3
132.5°	353.3	371.4	389.6	394.2	445.6	514.3	548.7	607.6	725.5	813.9	827.2
135°	370.1	386.6	403.2	407.4	453.0	513.9	544.4	593.7	692.4	766.4	777.8
137.5°	387.2	403.7	420.0	424.1	463.9	517.1	543.6	585.3	668.7	731.4	740.7
140°	401.5	416.6	431.7	435.5	470.7	517.6	541.0	577.0	649.2	703.3	712.0
142.5°	412.5	426.4	440.4	443.9	476.3	519.4	541.0	572.7	636.0	683.5	691.0
145°	429.2	441.4	453.6	456.6	483.6	519.5	537.4	563.3	615.1	653.9	659.6
147.5°	446.1	457.9	469.7	472.7	494.3	523.0	537.4	557.8	598.6	629.1	633.9
150°	457.0	467.7	478.4	481.1	499.9	525.0	537.4	554.6	589.0	614.8	618.6
152.5°	468.3	476.4	484.6	486.6	503.5	526.1	537.4	552.1	581.4	603.5	606.4
155°	485.2	491.1	497.2	498.7	511.6	528.8	537.4	549.1	572.5	590.0	591.9
157.5°	497.6	503.4	509.2	510.7	519.6	531.5	537.4	546.5	564.7	578.3	579.6
160°	506.0	510.6	515.0	516.2	523.3	532.7	537.4	545.2	560.8	572.5	573.3
162.5°	514.3	517.8	521.2	522.1	527.2	534.0	537.4	544.0	557.1	566.9	567.6
165°	523.5	526.5	529.6	530.4	532.8	535.9	537.4	542.2	551.6	558.6	559.4
167.5°	531.9	533.4	534.9	535.2	537.2	539.7	541.0	544.1	550.3	554.9	555.3
170°	537.4	538.8	540.3	540.7	540.8	540.9	541.0	544.1	550.3	554.9	554.9
172.5°	540.3	540.7	540.9	541.0	541.0	541.0	541.0	543.5	548.3	552.0	551.7
175°	544.4	544.4	544.4	544.4	543.2	541.7	541.0	542.6	545.7	548.0	548.0
177.5°	544.4	544.4	544.4	544.4	543.5	542.4	541.7	543.0	545.4	547.3	546.9
180°	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	183.2	183.2
2.5°	195.6	194.5
5°	251.6	252.8
7.5°	338.8	338.2
10°	421.3	426.6
12.5°	481.4	482.5
15°	517.9	520.3
17.5°	532.1	532.7
20°	532.7	531.5
22.5°	526.2	525.0
25°	518.5	517.9
27.5°	511.4	512.0
30°	508.4	510.3
32.5°	508.4	511.4
35°	509.7	512.6
37.5°	509.1	512.6
40°	506.7	510.8
42.5°	500.3	503.2
45°	490.2	493.8
47.5°	477.3	479.6
50°	460.8	463.1
52.5°	440.1	440.7
55°	415.4	417.7
57.5°	388.9	389.4
60°	359.4	361.2
62.5°	328.2	328.2
65°	295.2	296.3
67.5°	261.0	263.9
70°	226.3	226.9
72.5°	192.1	192.1
75°	156.7	157.3
77.5°	123.1	123.1
80°	91.3	92.0
82.5°	63.1	64.2
85°	39.4	39.4
87.5°	18.3	16.5
90°	13.9	13.9
92.5°	55.6	44.5
95°	193.8	160.4
97.5°	464.4	400.8
100°	669.1	593.3
102.5°	870.5	805.6
105°	1127.2	1092.3
107.5°	1295.4	1303.8
110°	1359.5	1395.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1365.2	1421.1
115°	1329.0	1406.5
117.5°	1252.3	1338.2
120°	1190.4	1273.9
122.5°	1130.2	1212.5
125°	1044.2	1120.1
127.5°	967.0	1030.9
130°	921.4	980.5
132.5°	880.1	933.0
135°	823.4	869.1
137.5°	778.1	815.4
140°	746.9	781.8
142.5°	721.1	751.1
145°	682.4	705.1
147.5°	652.7	671.5
150°	633.9	649.2
152.5°	617.9	629.5
155°	599.5	607.2
157.5°	585.0	590.4
160°	576.3	579.4
162.5°	570.6	573.5
165°	562.5	565.5
167.5°	556.5	557.8
170°	554.9	554.9
172.5°	550.6	549.5
175°	548.0	548.0
177.5°	545.7	544.4
180°	544.4	544.4



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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	0.46	1.17	1.57	2.29	3.83	13.60	14.32	14.72	15.43	16.98
	3H	1.15	1.80	2.28	2.92	4.48	15.41	16.06	16.54	17.18	18.74
	4H	1.45	2.06	2.58	3.18	4.74	16.04	16.65	17.18	17.78	19.34
	6H	1.69	2.25	2.83	3.38	4.96	16.45	17.02	17.60	18.14	19.72
	8H	1.75	2.29	2.90	3.43	5.00	16.56	17.10	17.71	18.24	19.81
	12H	1.77	2.28	2.92	3.41	5.00	16.62	17.13	17.77	18.26	19.86
4H	2H	7.63	8.25	8.78	9.37	10.93	13.86	14.47	15.00	15.59	17.16
	3H	9.19	9.70	10.34	10.85	12.43	15.88	16.39	17.02	17.54	19.11
	4H	9.28	9.75	10.43	10.89	12.48	16.63	17.10	17.78	18.23	19.83
	6H	9.28	9.69	10.44	10.85	12.43	17.14	17.55	18.30	18.71	20.30
	8H	9.26	9.63	10.41	10.78	12.39	17.30	17.67	18.45	18.82	20.43
	12H	9.20	9.55	10.38	10.71	12.32	17.37	17.72	18.55	18.88	20.49
8H	4H	10.70	11.08	11.86	12.23	13.83	16.68	17.05	17.83	18.20	19.81
	6H	10.94	11.25	12.11	12.44	14.04	17.28	17.60	18.46	18.79	20.39
	8H	10.95	11.23	12.14	12.40	14.02	17.50	17.77	18.68	18.94	20.56
	12H	10.91	11.15	12.10	12.32	13.98	17.62	17.86	18.81	19.03	20.69
12H	4H	10.83	11.18	12.01	12.34	13.95	16.62	16.96	17.79	18.13	19.74
	6H	11.19	11.46	12.37	12.63	14.26	17.27	17.54	18.45	18.71	20.33
	8H	11.25	11.49	12.44	12.66	14.32	17.48	17.72	18.67	18.89	20.54