

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: P937810

Luminaire Tested: SQ4-FB-125U-050D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

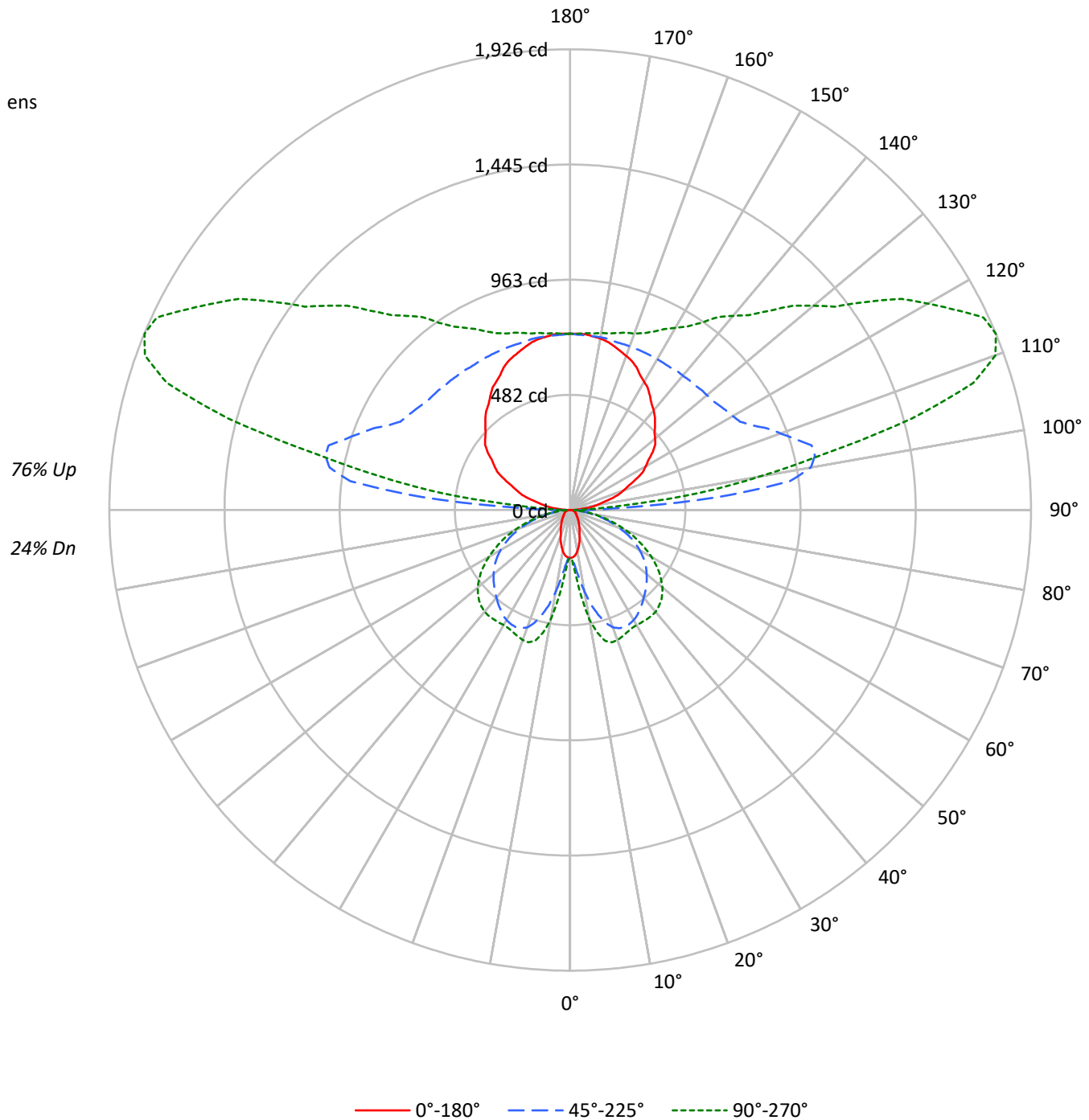
Test Method: LM-79-2019  
Report Number: P937810  
REPORT IS A COMBINATION OF REPORTS P933597 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6326.8 lumens  
Efficiency: N/A  
Efficacy: 132.9 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): 47.6  
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





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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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24				24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20				20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16				16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19	13				13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11				11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10				10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8				8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7				7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6				6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6				6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5				5

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

	0°	45°	90°
0°	1850	1850	1850
5°	1807	2137	2487
10°	1637	3114	4124
15°	1389	4065	4980
20°	1130	4708	5076
25°	941	4922	4973
30°	792	4949	4963
35°	699	4863	5091
40°	609	4753	5224
45°	549	4670	5245
50°	503	4595	5158
55°	481	4488	4929
60°	489	4285	4567
65°	508	3978	4072
70°	536	3462	3440
75°	590	2816	2684
80°	632	1945	1810
85°	530	1028	924

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5245 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.8	0.4
10°-20°	114.4	1.8
20°-30°	200.0	3.2
30°-40°	257.5	4.1
40°-50°	287.6	4.5
50°-60°	275.4	4.4
60°-70°	218.3	3.5
70°-80°	128.4	2.0
80°-90°	38.5	0.6
90°-100°	359.5	5.7
100°-110°	945.2	14.9
110°-120°	980.0	15.5
120°-130°	786.1	12.4
130°-140°	616.8	9.7
140°-150°	473.4	7.5
150°-160°	340.9	5.4
160°-170°	208.6	3.3
170°-180°	70.5	1.1
0°-30°	340.2	5.4
0°-40°	597.6	9.4
0°-60°	1160.7	18.3
0°-90°	1545.8	24.4
90°-120°	2284.7	36.1
90°-150°	4161.0	65.8
90°-180°	4781.0	75.6
0°-180°	6326.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	199	199	199	199	199	
5°	194	208	235	266	275	18
15°	146	269	453	549	566	41
25°	93	305	539	563	564	43
35°	63	291	508	537	558	39
45°	43	232	449	514	538	33
55°	31	148	381	442	455	28
65°	24	78	283	318	323	24
75°	18	48	155	171	171	19
85°	6	15	38	42	43	7
90°	5	14	38	19	19	5
95°	48	186	619	319	217	53
105°	170	258	1045	1586	1480	180
115°	302	367	837	1670	1906	299
125°	421	472	761	1286	1518	374
135°	501	552	738	1038	1178	388
145°	582	619	728	886	955	364
155°	657	676	728	799	823	302
165°	709	719	728	757	766	200
175°	738	738	733	742	742	70
180°	738	738	738	738	738	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4
2.5°	199.4	199.4	200.8	201.3	202.7	203.3	204.6	205.8	209.7	210.3	211.7
5°	194.4	196.9	205.3	208.4	217.4	229.6	234.7	243.1	260.4	265.5	268.7
7.5°	186.6	192.4	212.9	218.1	240.5	272.6	286.0	304.0	331.5	345.0	355.9
10°	174.5	186.6	223.2	235.4	271.9	320.6	345.7	370.7	412.4	431.0	438.0
12.5°	161.0	180.9	234.1	250.8	303.3	374.6	404.7	432.3	479.7	504.8	508.6
15°	145.6	172.6	244.4	268.7	336.7	419.4	452.8	486.8	531.1	548.9	553.4
17.5°	132.1	166.2	254.0	279.6	362.3	459.8	493.9	522.1	557.9	570.2	573.3
20°	115.5	155.8	260.4	293.8	389.3	489.4	522.1	543.9	568.2	575.9	577.2
22.5°	103.2	144.9	264.2	298.8	407.3	507.3	534.9	552.2	568.8	571.4	572.1
25°	93.0	132.8	263.6	304.7	422.6	518.2	539.4	552.2	561.8	563.1	563.1
27.5°	83.4	119.3	261.0	305.9	434.2	520.7	537.5	546.4	550.9	553.4	553.4
30°	75.0	106.5	254.6	303.3	439.3	518.2	531.6	536.1	540.6	544.5	546.4
32.5°	68.6	94.3	245.0	298.2	440.0	511.7	521.4	524.0	530.4	539.4	542.5
35°	62.8	82.1	234.1	291.2	436.1	501.5	507.9	510.5	523.3	536.8	541.3
37.5°	57.1	73.1	220.0	279.0	430.3	489.4	493.9	498.4	518.2	534.2	539.4
40°	51.3	65.4	203.3	265.5	421.4	474.6	478.5	485.5	511.7	530.4	535.6
42.5°	46.8	59.0	185.4	251.4	409.8	457.9	463.7	474.0	504.1	524.0	529.7
45°	42.9	52.6	166.2	232.1	395.0	440.6	448.9	463.1	495.1	514.3	519.5
47.5°	39.1	48.1	146.3	212.3	379.1	423.3	434.2	450.2	483.0	501.5	506.0
50°	35.9	43.6	126.4	191.1	361.8	404.7	417.5	434.2	467.6	484.9	490.6
52.5°	33.4	39.8	107.7	170.0	341.9	385.5	400.2	417.5	448.9	465.6	469.5
55°	30.8	36.5	91.7	147.5	321.3	364.9	381.0	397.6	428.4	442.5	445.1
57.5°	29.5	34.0	78.2	126.4	299.5	341.9	359.7	375.1	404.0	414.9	417.5
60°	27.5	32.0	68.0	108.4	275.8	320.1	335.5	350.9	375.1	384.1	386.1
62.5°	25.6	30.8	60.3	91.1	251.4	294.4	309.7	323.9	344.4	350.9	353.3
65°	24.4	29.5	54.5	78.2	226.4	267.4	282.8	295.0	311.7	318.1	319.4
67.5°	23.1	28.2	50.0	67.3	201.3	240.5	252.0	263.6	276.4	282.8	283.5
70°	21.1	27.0	46.2	59.7	175.7	209.7	219.3	231.5	241.8	245.0	246.9
72.5°	19.9	25.0	43.6	53.9	149.4	180.2	189.2	196.3	205.3	208.4	208.4
75°	18.0	22.5	41.0	48.1	122.5	147.5	155.2	162.2	169.3	170.6	168.6
77.5°	16.1	19.9	35.3	40.4	95.6	116.7	123.1	127.0	132.8	134.0	134.7
80°	13.5	17.3	27.5	31.5	69.3	85.9	90.4	93.6	98.8	98.8	100.1
82.5°	10.2	13.5	19.9	22.5	46.8	59.0	62.8	64.8	68.0	68.0	68.0
85°	6.4	8.3	12.8	14.7	28.2	35.9	38.5	39.1	41.7	42.4	42.4
87.5°	3.3	4.5	8.3	9.0	14.7	18.6	18.6	19.9	19.9	19.2	18.6
90°	5.0	8.9	12.9	13.9	21.8	32.3	37.6	33.4	25.0	18.8	18.8
92.5°	19.8	53.4	87.1	95.5	134.3	186.0	211.8	185.7	133.4	94.1	90.3
95°	47.5	109.1	170.7	186.1	330.5	522.9	619.2	552.6	419.3	319.3	307.9
97.5°	82.1	136.4	190.8	204.4	445.1	766.0	926.6	884.4	800.2	737.0	715.5
100°	108.9	158.2	207.5	219.8	486.9	843.0	1021.1	1024.2	1030.4	1035.0	1009.2
102.5°	131.6	177.6	223.6	235.1	506.0	867.3	1047.9	1101.6	1209.0	1289.5	1267.5
105°	170.3	209.3	248.2	257.9	520.3	870.1	1044.9	1165.3	1405.9	1586.4	1574.5
107.5°	209.8	246.2	282.5	291.6	522.9	831.3	985.5	1153.4	1489.1	1740.8	1743.6
110°	236.6	269.4	302.1	310.3	518.9	797.0	936.0	1123.7	1499.0	1780.5	1792.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	262.8	294.1	325.2	333.1	519.0	767.0	891.0	1083.1	1467.2	1755.2	1774.1
115°	302.4	331.3	360.1	367.3	523.9	732.6	837.0	1022.0	1392.0	1669.6	1695.8
117.5°	341.6	367.8	394.0	400.5	533.6	711.2	799.9	966.8	1300.7	1551.2	1580.3
120°	364.3	389.0	413.7	419.8	541.6	703.9	785.1	937.6	1242.7	1471.6	1499.9
122.5°	386.6	411.5	436.3	442.5	553.0	700.1	773.7	911.1	1185.8	1391.8	1419.8
125°	420.7	443.4	466.0	471.7	568.2	696.9	761.3	878.0	1111.4	1286.4	1312.1
127.5°	448.5	471.3	494.2	499.9	583.5	695.1	750.8	851.0	1051.5	1201.8	1223.5
130°	463.3	487.9	512.6	518.7	594.8	696.3	746.9	836.1	1014.5	1148.3	1168.3
132.5°	478.7	503.3	528.0	534.1	603.9	696.9	743.5	823.3	983.1	1102.8	1120.7
135°	501.4	523.9	546.3	551.9	613.8	696.3	737.6	804.5	938.2	1038.5	1054.0
137.5°	524.7	546.8	569.1	574.7	628.6	700.6	736.5	793.0	906.1	990.9	1003.5
140°	544.0	564.4	584.9	590.0	637.7	701.3	733.1	781.9	879.6	952.8	964.7
142.5°	558.8	577.7	596.6	601.4	645.3	703.8	733.1	776.0	861.7	926.1	936.2
145°	581.6	598.1	614.6	618.7	655.1	703.8	728.1	763.2	833.3	886.0	893.8
147.5°	604.4	620.4	636.5	640.5	669.7	708.6	728.1	755.7	811.0	852.4	858.8
150°	619.2	633.7	648.3	651.9	677.3	711.2	728.1	751.4	798.1	833.1	838.2
152.5°	634.6	645.6	656.6	659.4	682.3	712.8	728.1	748.0	787.8	817.7	821.6
155°	657.3	665.5	673.6	675.6	693.1	716.4	728.1	744.0	775.6	799.4	802.0
157.5°	674.2	682.1	689.9	692.0	704.0	720.1	728.1	740.4	765.1	783.5	785.4
160°	685.5	691.7	697.9	699.4	709.0	721.7	728.1	738.6	759.7	775.6	776.7
162.5°	696.9	701.5	706.2	707.3	714.2	723.5	728.1	737.0	754.9	768.2	769.2
165°	709.3	713.5	717.7	718.7	721.9	726.0	728.1	734.5	747.2	756.8	757.8
167.5°	720.7	722.6	724.6	725.1	727.8	731.3	733.1	737.3	745.6	751.9	752.4
170°	728.1	730.1	732.1	732.6	732.8	733.0	733.1	737.3	745.6	751.9	751.9
172.5°	732.1	732.5	733.0	733.1	733.1	733.1	733.1	736.3	742.9	747.9	747.5
175°	737.6	737.6	737.6	737.6	736.0	734.0	733.1	735.2	739.3	742.4	742.4
177.5°	737.6	737.6	737.6	737.6	736.4	734.8	734.0	735.6	739.0	741.5	741.0
180°	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6	737.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	199.4	199.4
2.5°	212.9	211.7
5°	273.9	275.1
7.5°	368.7	368.2
10°	458.6	464.3
12.5°	524.0	525.2
15°	563.8	566.3
17.5°	579.1	579.8
20°	579.8	578.5
22.5°	572.7	571.4
25°	564.4	563.8
27.5°	556.7	557.3
30°	553.4	555.4
32.5°	553.4	556.7
35°	554.8	557.9
37.5°	554.1	557.9
40°	551.5	556.0
42.5°	544.5	547.7
45°	533.5	537.5
47.5°	519.5	522.1
50°	501.5	504.1
52.5°	479.1	479.7
55°	452.2	454.7
57.5°	423.3	423.9
60°	391.2	393.1
62.5°	357.3	357.3
65°	321.3	322.6
67.5°	284.1	287.3
70°	246.3	246.9
72.5°	209.1	209.1
75°	170.6	171.2
77.5°	134.0	134.0
80°	99.4	100.1
82.5°	68.6	69.9
85°	42.9	42.9
87.5°	19.9	18.0
90°	18.8	18.8
92.5°	75.3	60.4
95°	262.6	217.3
97.5°	629.2	543.0
100°	906.6	803.8
102.5°	1179.4	1091.5
105°	1527.3	1480.0
107.5°	1755.1	1766.6
110°	1842.0	1891.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1849.8	1925.5
115°	1800.7	1905.7
117.5°	1696.7	1813.1
120°	1612.9	1726.0
122.5°	1531.2	1642.8
125°	1414.8	1517.6
127.5°	1310.1	1396.8
130°	1248.4	1328.6
132.5°	1192.4	1264.1
135°	1115.7	1177.5
137.5°	1054.2	1104.8
140°	1011.9	1059.2
142.5°	976.9	1017.7
145°	924.5	955.3
147.5°	884.2	909.7
150°	859.0	879.6
152.5°	837.2	852.8
155°	812.3	822.6
157.5°	792.6	799.9
160°	780.9	785.1
162.5°	773.2	777.1
165°	762.0	766.2
167.5°	754.1	755.8
170°	751.9	751.9
172.5°	746.0	744.4
175°	742.4	742.4
177.5°	739.3	737.6
180°	737.6	737.6



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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	0.11	0.80	1.26	1.94	3.53	13.26	13.94	14.40	15.08	16.67
	3H	0.81	1.42	1.96	2.57	4.18	15.07	15.68	16.22	16.83	18.43
	4H	1.10	1.68	2.26	2.83	4.44	15.69	16.28	16.85	17.42	19.04
	6H	1.34	1.88	2.51	3.03	4.65	16.10	16.64	17.27	17.79	19.41
	8H	1.40	1.92	2.58	3.08	4.70	16.21	16.72	17.38	17.89	19.50
	12H	1.42	1.90	2.59	3.06	4.70	16.26	16.75	17.44	17.91	19.55
4H	2H	7.28	7.87	8.45	9.02	10.63	13.51	14.09	14.68	15.24	16.85
	3H	8.84	9.33	10.01	10.50	12.12	15.52	16.01	16.70	17.18	18.81
	4H	8.93	9.38	10.10	10.53	12.18	16.27	16.72	17.45	17.88	19.53
	6H	8.93	9.31	10.11	10.49	12.13	16.79	17.17	17.97	18.36	19.99
	8H	8.90	9.26	10.08	10.43	12.08	16.94	17.30	18.12	18.47	20.12
	12H	8.85	9.17	10.04	10.36	12.01	17.01	17.34	18.21	18.53	20.18
8H	4H	10.34	10.71	11.52	11.88	13.53	16.32	16.68	17.50	17.85	19.50
	6H	10.58	10.88	11.78	12.09	13.74	16.93	17.22	18.13	18.44	20.09
	8H	10.59	10.85	11.80	12.05	13.71	17.14	17.40	18.34	18.59	20.26
	12H	10.55	10.78	11.76	11.97	13.67	17.26	17.49	18.47	18.68	20.38
12H	4H	10.48	10.80	11.67	11.99	13.64	16.26	16.59	17.46	17.77	19.43
	6H	10.83	11.09	12.04	12.28	13.95	16.91	17.17	18.11	18.36	20.03
	8H	10.89	11.12	12.10	12.31	14.01	17.12	17.35	18.33	18.54	20.24