

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: P937415

Luminaire Tested: SQ4-FB-100U-050D-835-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937415  
REPORT IS A COMBINATION OF REPORTS P933573 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-835-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

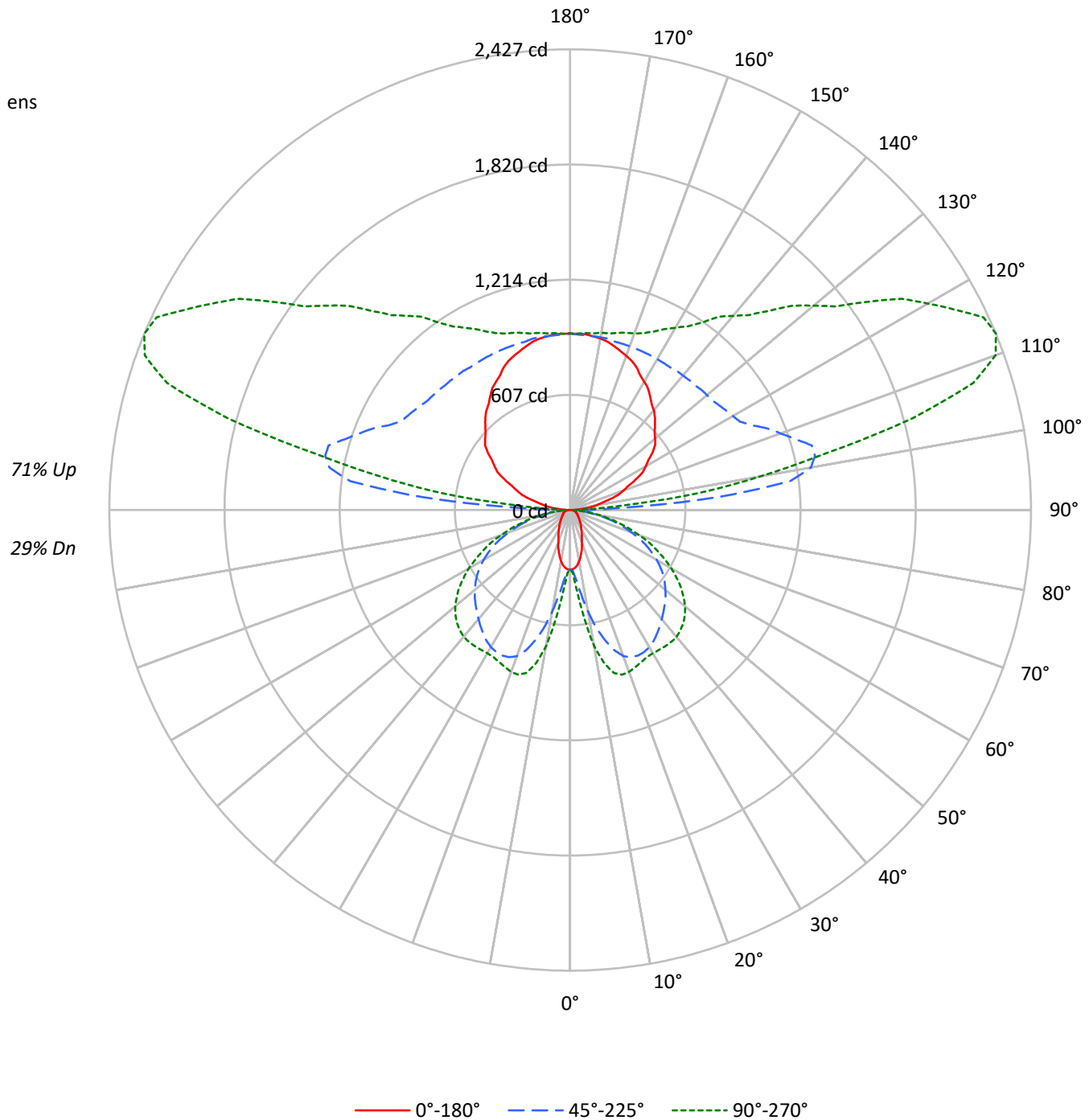
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8450.0 lumens  
Efficiency: N/A  
Efficacy: 136.7 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 61.8  
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				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	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°	1935	1935	1935
5°	1890	2236	2601
10°	1714	3259	4312
15°	1456	4256	5207
20°	1185	4931	5307
25°	988	5159	5199
30°	833	5191	5189
35°	736	5103	5323
40°	641	4990	5462
45°	580	4906	5483
50°	531	4830	5393
55°	509	4721	5154
60°	521	4512	4776
65°	540	4194	4257
70°	574	3655	3597
75°	635	2977	2807
80°	687	2062	1891
85°	602	1093	968

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5483 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.5	0.5
10°-20°	179.3	2.1
20°-30°	313.7	3.7
30°-40°	403.8	4.8
40°-50°	451.0	5.3
50°-60°	432.0	5.1
60°-70°	342.4	4.1
70°-80°	201.3	2.4
80°-90°	59.5	0.7
90°-100°	453.1	5.4
100°-110°	1191.4	14.1
110°-120°	1235.3	14.6
120°-130°	990.9	11.7
130°-140°	777.5	9.2
140°-150°	596.7	7.1
150°-160°	429.8	5.1
160°-170°	263.0	3.1
170°-180°	88.8	1.1
0°-30°	533.5	6.3
0°-40°	937.3	11.1
0°-60°	1820.4	21.5
0°-90°	2423.5	28.7
90°-120°	2879.8	34.1
90°-150°	5244.9	62.1
90°-180°	6026.0	71.3
0°-180°	8450.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	313	313	313	313	313	
5°	305	327	368	416	432	28
15°	228	422	710	861	888	64
25°	146	478	846	883	884	67
35°	99	457	797	842	875	62
45°	67	364	704	807	843	52
55°	48	231	598	694	713	44
65°	38	123	444	499	506	38
75°	28	75	243	268	269	29
85°	10	23	60	66	67	11
90°	6	18	47	24	24	6
95°	60	235	780	402	274	67
105°	215	325	1317	2000	1866	228
115°	381	463	1055	2104	2402	377
125°	530	595	960	1622	1913	471
135°	632	696	930	1309	1484	489
145°	733	780	918	1117	1204	459
155°	829	852	918	1008	1037	381
165°	894	906	918	954	966	252
175°	930	930	924	936	936	88
180°	930	930	930	930	930	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8
2.5°	312.8	312.8	314.8	315.8	317.9	318.9	320.9	322.9	328.9	329.9	331.9
5°	304.8	308.8	321.9	326.9	341.0	360.1	368.1	381.2	408.4	416.4	421.5
7.5°	292.7	301.8	333.9	342.0	377.2	427.5	448.6	476.8	520.0	541.2	558.3
10°	273.6	292.7	350.0	369.2	426.5	502.9	542.2	581.4	646.8	675.9	687.0
12.5°	252.5	283.7	367.1	393.3	475.8	587.4	634.7	678.0	752.4	791.6	797.6
15°	228.3	270.6	383.2	421.5	528.1	657.8	710.1	763.5	832.9	861.0	868.1
17.5°	207.2	260.5	398.3	438.6	568.3	721.2	774.5	818.8	875.1	894.2	899.2
20°	181.1	244.4	408.4	460.7	610.6	767.5	818.8	853.0	891.2	903.3	905.3
22.5°	161.9	227.3	414.4	468.7	638.7	795.6	838.9	866.0	892.2	896.2	897.2
25°	145.9	208.2	413.4	477.8	662.9	812.7	845.9	866.0	881.1	883.1	883.1
27.5°	130.8	187.1	409.4	479.8	681.0	816.8	842.9	857.0	864.0	868.1	868.1
30°	117.7	167.0	399.3	475.8	689.0	812.7	833.9	840.9	847.9	854.0	857.0
32.5°	107.6	147.9	384.2	467.7	690.0	802.7	817.8	821.8	831.8	845.9	851.0
35°	98.6	128.8	367.1	456.7	684.0	786.6	796.6	800.7	820.8	841.9	848.9
37.5°	89.5	114.7	345.0	437.6	674.9	767.5	774.5	781.6	812.7	837.9	845.9
40°	80.5	102.6	318.9	416.4	660.9	744.3	750.4	761.4	802.7	831.8	839.9
42.5°	73.4	92.5	290.7	394.3	642.7	718.2	727.2	743.3	790.6	821.8	830.8
45°	67.4	82.5	260.5	364.1	619.6	691.0	704.1	726.2	776.5	806.7	814.7
47.5°	61.4	75.4	229.3	332.9	594.5	663.9	681.0	706.1	757.4	786.6	793.6
50°	56.3	68.4	198.2	299.7	567.3	634.7	654.8	681.0	733.3	760.4	769.5
52.5°	52.3	62.4	169.0	266.6	536.1	604.5	627.7	654.8	704.1	730.3	736.3
55°	48.3	57.3	143.8	231.3	503.9	572.3	597.5	623.6	671.9	694.0	698.1
57.5°	46.3	53.3	122.7	198.2	469.7	536.1	564.3	588.4	633.7	650.8	654.8
60°	43.3	50.3	106.6	170.0	432.5	501.9	526.1	550.2	588.4	602.5	605.5
62.5°	40.2	48.3	94.6	142.8	394.3	461.7	485.8	508.0	540.1	550.2	554.2
65°	38.2	46.3	85.5	122.7	355.1	419.4	443.6	462.7	488.8	498.9	500.9
67.5°	36.2	44.3	78.5	105.6	315.8	377.2	395.3	413.4	433.5	443.6	444.6
70°	33.2	42.2	72.4	93.5	275.6	328.9	344.0	363.1	379.2	384.2	387.3
72.5°	31.2	39.2	68.4	84.5	234.4	282.6	296.7	307.8	321.9	326.9	326.9
75°	28.2	35.2	64.4	75.4	192.1	231.3	243.4	254.5	265.5	267.6	264.5
77.5°	25.1	31.2	55.3	63.4	149.9	183.1	193.1	199.2	208.2	210.2	211.2
80°	21.1	27.2	43.3	49.3	108.6	134.8	141.8	146.9	154.9	154.9	156.9
82.5°	16.1	21.1	31.2	35.2	73.4	92.5	98.6	101.6	106.6	106.6	106.6
85°	10.1	13.1	20.1	23.1	44.3	56.3	60.4	61.4	65.4	66.4	66.4
87.5°	5.0	7.0	13.1	14.1	23.1	29.2	29.2	31.2	31.2	30.2	29.2
90°	6.2	11.2	16.2	17.5	27.5	40.8	47.4	42.1	31.6	23.7	23.7
92.5°	25.0	67.4	109.8	120.4	169.3	234.4	267.0	234.0	168.0	118.5	113.8
95°	59.9	137.5	215.2	234.6	416.6	659.2	780.5	696.5	528.4	402.4	388.1
97.5°	103.6	172.1	240.6	257.7	561.1	965.7	1168.0	1114.9	1008.7	929.0	901.8
100°	137.3	199.4	261.5	277.0	613.7	1062.6	1287.1	1291.0	1298.8	1304.6	1272.2
102.5°	166.0	224.0	281.9	296.4	637.9	1093.2	1320.8	1388.5	1523.8	1625.3	1597.6
105°	214.6	263.7	312.8	325.1	655.8	1096.7	1317.1	1468.8	1772.1	1999.6	1984.7
107.5°	264.5	310.3	356.1	367.5	659.1	1047.8	1242.2	1453.8	1876.9	2194.3	2197.9
110°	298.2	339.5	380.9	391.2	654.1	1004.6	1179.8	1416.3	1889.4	2244.2	2259.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	331.3	370.7	410.1	419.9	654.3	966.8	1123.0	1365.1	1849.3	2212.4	2236.2
115°	381.2	417.5	453.8	462.9	660.3	923.4	1055.0	1288.2	1754.7	2104.5	2137.6
117.5°	430.5	463.5	496.5	504.7	672.5	896.3	1008.2	1218.7	1639.6	1955.3	1992.0
120°	459.2	490.3	521.3	529.1	682.6	887.2	989.5	1181.8	1566.4	1854.9	1890.5
122.5°	487.3	518.6	550.0	557.8	696.9	882.4	975.2	1148.4	1494.7	1754.4	1789.6
125°	530.3	558.9	587.5	594.6	716.3	878.5	959.6	1106.7	1400.9	1621.6	1654.0
127.5°	565.3	594.1	623.0	630.2	735.6	876.2	946.5	1072.8	1325.4	1514.9	1542.2
130°	584.0	615.1	646.1	653.9	749.8	877.6	941.5	1053.9	1278.8	1447.5	1472.7
132.5°	603.3	634.4	665.4	673.2	761.2	878.5	937.1	1037.8	1239.1	1390.1	1412.7
135°	632.0	660.3	688.6	695.7	773.7	877.6	929.6	1013.9	1182.5	1309.0	1328.5
137.5°	661.3	689.3	717.4	724.4	792.4	883.1	928.4	999.7	1142.2	1249.1	1265.0
140°	685.7	711.5	737.3	743.7	803.8	883.9	924.0	985.6	1108.7	1201.0	1215.9
142.5°	704.4	728.3	752.1	758.1	813.4	887.1	924.0	978.1	1086.2	1167.3	1180.1
145°	733.1	753.9	774.7	779.9	825.9	887.2	917.8	962.0	1050.5	1116.8	1126.5
147.5°	761.8	782.0	802.2	807.3	844.1	893.2	917.8	952.6	1022.2	1074.4	1082.4
150°	780.5	798.8	817.1	821.7	853.7	896.4	917.8	947.2	1005.9	1050.0	1056.5
152.5°	799.9	813.8	827.6	831.1	860.0	898.5	917.8	942.9	993.1	1030.7	1035.6
155°	828.6	838.8	849.0	851.6	873.7	903.1	917.8	937.8	977.7	1007.6	1010.9
157.5°	849.8	859.8	869.7	872.2	887.4	907.7	917.8	933.3	964.4	987.7	990.0
160°	864.1	871.9	879.7	881.6	893.7	909.8	917.8	931.1	957.7	977.7	979.0
162.5°	878.5	884.3	890.1	891.6	900.3	912.0	917.8	929.0	951.5	968.3	969.5
165°	894.1	899.3	904.6	905.9	909.9	915.2	917.8	925.8	941.9	954.0	955.3
167.5°	908.4	910.9	913.4	914.0	917.3	921.8	924.0	929.3	939.8	947.7	948.3
170°	917.8	920.3	922.8	923.4	923.6	923.9	924.0	929.3	939.8	947.7	947.7
172.5°	922.8	923.3	923.9	924.0	924.0	924.0	924.0	928.2	936.5	942.7	942.2
175°	929.6	929.6	929.6	929.6	927.7	925.2	924.0	926.6	931.9	935.9	935.9
177.5°	929.6	929.6	929.6	929.6	928.2	926.3	925.3	927.4	931.5	934.6	934.0
180°	929.6	929.6	929.6	929.6	929.6	929.6	929.6	929.6	929.6	929.6	929.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	312.8	312.8
2.5°	333.9	331.9
5°	429.5	431.5
7.5°	578.4	577.4
10°	719.2	728.2
12.5°	821.8	823.8
15°	884.2	888.2
17.5°	908.3	909.3
20°	909.3	907.3
22.5°	898.2	896.2
25°	885.2	884.2
27.5°	873.1	874.1
30°	868.1	871.1
32.5°	868.1	873.1
35°	870.1	875.1
37.5°	869.1	875.1
40°	865.0	872.1
42.5°	854.0	859.0
45°	836.9	842.9
47.5°	814.7	818.8
50°	786.6	790.6
52.5°	751.4	752.4
55°	709.1	713.2
57.5°	663.9	664.9
60°	613.6	616.6
62.5°	560.3	560.3
65°	503.9	505.9
67.5°	445.6	450.6
70°	386.3	387.3
72.5°	327.9	327.9
75°	267.6	268.6
77.5°	210.2	210.2
80°	155.9	156.9
82.5°	107.6	109.6
85°	67.4	67.4
87.5°	31.2	28.2
90°	23.7	23.7
92.5°	94.9	76.1
95°	331.0	273.9
97.5°	793.1	684.4
100°	1142.7	1013.2
102.5°	1486.6	1375.7
105°	1925.1	1865.5
107.5°	2212.4	2226.8
110°	2321.9	2384.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2331.6	2427.0
115°	2269.8	2402.1
117.5°	2138.7	2285.4
120°	2033.1	2175.6
122.5°	1930.2	2070.8
125°	1783.4	1912.9
127.5°	1651.5	1760.7
130°	1573.7	1674.6
132.5°	1503.1	1593.5
135°	1406.4	1484.3
137.5°	1328.8	1392.6
140°	1275.6	1335.2
142.5°	1231.5	1282.8
145°	1165.4	1204.2
147.5°	1114.6	1146.8
150°	1082.6	1108.7
152.5°	1055.3	1075.0
155°	1023.9	1036.9
157.5°	999.1	1008.2
160°	984.3	989.5
162.5°	974.5	979.5
165°	960.6	965.8
167.5°	950.5	952.7
170°	947.7	947.7
172.5°	940.3	938.4
175°	935.9	935.9
177.5°	931.8	929.6
180°	929.6	929.6



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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	0.92	1.64	2.04	2.75	4.29	14.09	14.80	15.20	15.92	17.46
	3H	1.61	2.26	2.74	3.38	4.94	15.91	16.55	17.03	17.67	19.23
	4H	1.91	2.52	3.04	3.64	5.21	16.54	17.16	17.68	18.28	19.84
	6H	2.15	2.71	3.29	3.84	5.41	16.96	17.53	18.10	18.65	20.23
	8H	2.21	2.75	3.36	3.89	5.46	17.08	17.61	18.22	18.75	20.32
	12H	2.23	2.73	3.38	3.87	5.46	17.14	17.65	18.29	18.78	20.37
4H	2H	8.11	8.72	9.25	9.84	11.41	14.34	14.95	15.48	16.08	17.64
	3H	9.66	10.18	10.81	11.32	12.90	16.37	16.88	17.52	18.03	19.61
	4H	9.75	10.22	10.90	11.36	12.96	17.13	17.60	18.28	18.73	20.33
	6H	9.76	10.16	10.91	11.32	12.91	17.65	18.06	18.81	19.22	20.80
	8H	9.73	10.10	10.88	11.26	12.86	17.81	18.19	18.96	19.34	20.94
	12H	9.68	10.02	10.85	11.18	12.79	17.89	18.23	19.06	19.40	21.01
8H	4H	11.18	11.56	12.34	12.71	14.32	17.17	17.55	18.33	18.70	20.31
	6H	11.42	11.73	12.59	12.92	14.52	17.79	18.10	18.97	19.30	20.90
	8H	11.43	11.70	12.61	12.88	14.50	18.01	18.28	19.19	19.45	21.07
	12H	11.39	11.63	12.58	12.80	14.46	18.14	18.38	19.33	19.55	21.21
12H	4H	11.32	11.66	12.49	12.82	14.43	17.12	17.46	18.29	18.63	20.24
	6H	11.67	11.94	12.85	13.12	14.74	17.77	18.05	18.96	19.22	20.84
	8H	11.73	11.97	12.92	13.14	14.80	17.99	18.23	19.18	19.40	21.06