

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: P938470

Luminaire Tested: SQ4-FB-150U-100D-935-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

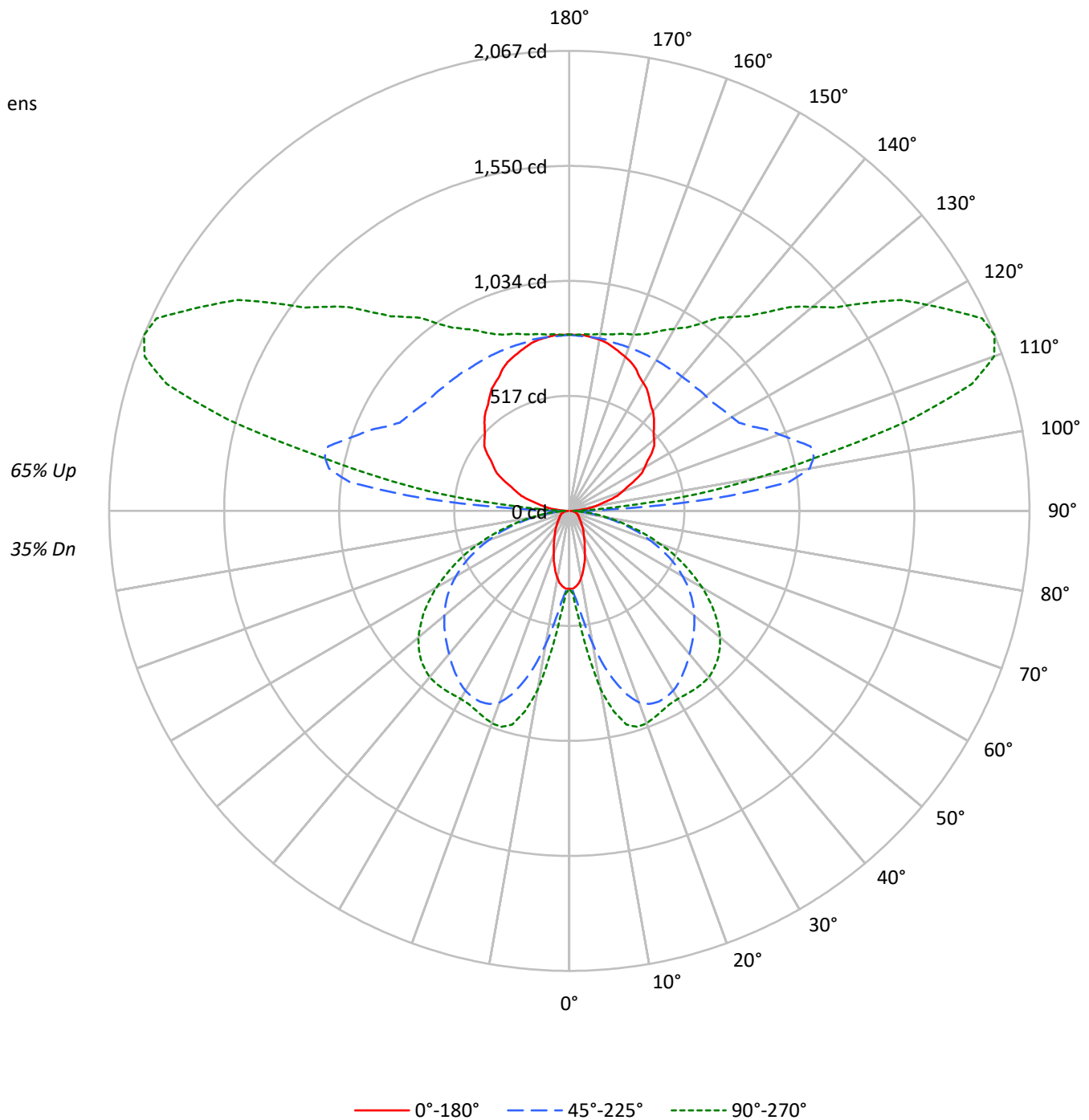
Test Method: LM-79-2019  
Report Number: P938470  
REPORT IS A COMBINATION OF REPORTS P933631 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-935-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7844.4 lumens  
Efficiency: N/A  
Efficacy: 108.3 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): 72.4  
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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35				35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28				28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23				23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8				8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7				7

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

	0°	45°	90°
0°	3249	3249	3249
5°	3170	3752	4367
10°	2872	5465	7239
15°	2438	7135	8741
20°	1983	8263	8909
25°	1652	8639	8729
30°	1391	8688	8711
35°	1228	8537	8938
40°	1069	8342	9170
45°	965	8197	9206
50°	883	8066	9054
55°	843	7876	8652
60°	861	7521	8018
65°	892	6984	7147
70°	942	6078	6038
75°	1033	4944	4713
80°	1105	3415	3175
85°	927	1804	1625

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9206 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.3	0.6
10°-20°	200.7	2.6
20°-30°	351.1	4.5
30°-40°	452.0	5.8
40°-50°	504.8	6.4
50°-60°	483.5	6.2
60°-70°	383.2	4.9
70°-80°	225.3	2.9
80°-90°	65.6	0.8
90°-100°	386.0	4.9
100°-110°	1014.7	12.9
110°-120°	1052.2	13.4
120°-130°	843.9	10.8
130°-140°	662.2	8.4
140°-150°	508.3	6.5
150°-160°	366.0	4.7
160°-170°	224.0	2.9
170°-180°	75.7	1.0
0°-30°	597.1	7.6
0°-40°	1049.1	13.4
0°-60°	2037.4	26.0
0°-90°	2711.5	34.6
90°-120°	2452.8	31.3
90°-150°	4467.2	56.9
90°-180°	5133.0	65.4
0°-180°	7844.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	350	350	350	350	350	
5°	341	366	412	466	483	31
15°	256	472	795	964	994	71
25°	163	535	947	988	990	75
35°	110	511	892	942	980	69
45°	75	408	788	903	943	58
55°	54	259	669	777	798	49
65°	43	137	496	558	566	42
75°	32	84	272	300	301	33
85°	11	26	68	74	75	12
90°	5	15	40	20	20	5
95°	51	200	665	343	233	57
105°	183	277	1122	1703	1589	194
115°	325	394	899	1792	2046	321
125°	452	506	817	1381	1629	401
135°	538	592	792	1115	1264	416
145°	624	664	782	951	1026	391
155°	706	725	782	858	883	324
165°	762	772	782	812	823	215
175°	792	792	787	797	797	75
180°	792	792	792	792	792	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1	350.1
2.5°	350.1	350.1	352.4	353.5	355.7	356.9	359.1	361.3	368.1	369.3	371.5
5°	341.1	345.7	360.2	365.8	381.6	403.0	412.0	426.7	457.1	466.0	471.7
7.5°	327.6	337.7	373.8	382.8	422.2	478.5	502.1	533.6	582.0	605.7	624.8
10°	306.2	327.6	391.7	413.1	477.3	562.9	606.8	650.7	723.9	756.5	768.9
12.5°	282.6	317.5	410.9	440.1	532.5	657.5	710.4	758.8	842.1	886.0	892.7
15°	255.5	302.8	428.9	471.7	591.0	736.3	794.8	854.5	932.2	963.7	971.5
17.5°	231.9	291.6	445.8	490.8	636.1	807.2	866.8	916.4	979.5	1000.8	1006.5
20°	202.6	273.6	457.1	515.6	683.4	859.0	916.4	954.7	997.4	1011.0	1013.2
22.5°	181.2	254.4	463.8	524.6	714.8	890.5	938.9	969.3	998.5	1003.1	1004.2
25°	163.2	233.0	462.7	534.7	741.9	909.6	946.7	969.3	986.2	988.4	988.4
27.5°	146.4	209.4	458.2	537.0	762.1	914.1	943.4	959.2	967.0	971.5	971.5
30°	131.7	186.8	447.0	532.5	771.1	909.6	933.3	941.1	949.0	955.8	959.2
32.5°	120.5	165.5	430.1	523.5	772.3	898.3	915.2	919.7	931.0	946.7	952.5
35°	110.3	144.1	410.9	511.1	765.5	880.4	891.6	896.1	918.6	942.3	950.2
37.5°	100.2	128.3	386.1	489.7	755.4	859.0	866.8	874.7	909.6	937.8	946.7
40°	90.1	114.8	356.9	466.0	739.6	833.1	839.8	852.3	898.3	931.0	940.0
42.5°	82.2	103.6	325.4	441.3	719.3	803.8	813.9	832.0	884.9	919.7	929.9
45°	75.4	92.3	291.6	407.5	693.4	773.4	788.0	812.8	869.1	902.9	911.9
47.5°	68.7	84.4	256.7	372.7	665.3	743.0	762.1	790.3	847.7	880.4	888.2
50°	63.0	76.6	221.8	335.5	634.9	710.4	732.9	762.1	820.7	851.1	861.2
52.5°	58.5	69.8	189.1	298.4	600.1	676.6	702.5	732.9	788.0	817.3	824.1
55°	54.0	64.2	161.0	258.9	564.0	640.5	668.7	698.0	752.1	776.8	781.3
57.5°	51.8	59.6	137.3	221.8	525.8	600.1	631.6	658.6	709.2	728.4	732.9
60°	48.4	56.3	119.4	190.3	484.1	561.7	588.8	615.8	658.6	674.4	677.7
62.5°	45.1	54.0	105.8	159.8	441.3	516.7	543.7	568.5	604.6	615.8	620.3
65°	42.8	51.8	95.7	137.3	397.4	469.5	496.5	517.8	547.2	558.4	560.6
67.5°	40.6	49.5	87.8	118.2	353.5	422.2	442.4	462.7	485.2	496.5	497.6
70°	37.1	47.3	81.0	104.7	308.4	368.1	385.0	406.4	424.4	430.1	433.4
72.5°	34.9	43.9	76.6	94.6	262.3	316.3	332.1	344.5	360.2	365.8	365.8
75°	31.5	39.4	72.1	84.4	215.0	258.9	272.5	284.8	297.2	299.5	296.1
77.5°	28.1	34.9	61.9	70.9	167.8	204.9	216.2	222.9	233.0	235.3	236.4
80°	23.6	30.4	48.4	55.1	121.6	150.9	158.7	164.4	173.4	173.4	175.6
82.5°	18.0	23.6	34.9	39.4	82.2	103.6	110.3	113.7	119.4	119.4	119.4
85°	11.2	14.7	22.5	25.9	49.5	63.0	67.6	68.7	73.2	74.3	74.3
87.5°	5.6	7.8	14.7	15.8	25.9	32.6	32.6	34.9	34.9	33.7	32.6
90°	5.3	9.5	13.8	14.9	23.4	34.8	40.4	35.9	26.9	20.2	20.2
92.5°	21.2	57.3	93.5	102.6	144.2	199.6	227.4	199.3	143.1	101.0	97.0
95°	51.0	117.2	183.3	199.8	354.8	561.5	664.8	593.2	450.1	342.8	330.6
97.5°	88.2	146.5	204.9	219.5	477.9	822.5	994.8	949.6	859.1	791.3	768.1
100°	116.9	169.8	222.7	235.9	522.7	905.1	1096.3	1099.6	1106.2	1111.2	1083.6
102.5°	141.3	190.8	240.1	252.4	543.3	931.1	1125.0	1182.6	1297.9	1384.3	1360.7
105°	182.8	224.7	266.4	276.9	558.5	934.0	1121.7	1250.9	1509.3	1703.1	1690.5
107.5°	225.4	264.3	303.3	313.0	561.4	892.5	1058.0	1238.2	1598.6	1868.9	1872.0
110°	254.0	289.2	324.4	333.2	557.1	855.6	1004.8	1206.3	1609.3	1911.5	1924.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	282.2	315.8	349.3	357.7	557.3	823.5	956.5	1162.7	1575.1	1884.4	1904.6
115°	324.7	355.6	386.6	394.3	562.4	786.6	898.6	1097.2	1494.5	1792.4	1820.6
117.5°	366.7	394.8	422.9	429.9	572.9	763.5	858.7	1038.0	1396.5	1665.4	1696.7
120°	391.1	417.6	444.0	450.6	581.3	755.6	842.8	1006.6	1334.1	1579.9	1610.2
122.5°	415.0	441.7	468.4	475.1	593.6	751.6	830.6	978.1	1273.1	1494.3	1524.2
125°	451.7	476.0	500.4	506.4	610.0	748.2	817.3	942.6	1193.1	1381.1	1408.7
127.5°	481.5	506.0	530.5	536.7	626.5	746.3	806.2	913.8	1128.9	1290.3	1313.5
130°	497.4	523.8	550.2	556.9	638.6	747.5	801.9	897.7	1089.2	1232.8	1254.3
132.5°	513.8	540.3	566.8	573.4	648.3	748.2	798.2	883.9	1055.4	1183.9	1203.2
135°	538.3	562.4	586.4	592.5	658.9	747.5	791.8	863.6	1007.1	1114.8	1131.5
137.5°	563.3	587.1	611.0	616.9	674.9	752.1	790.7	851.4	972.8	1063.9	1077.4
140°	584.0	606.0	628.0	633.5	684.7	752.9	787.0	839.4	944.3	1022.9	1035.6
142.5°	600.0	620.3	640.5	645.6	692.8	755.6	787.0	833.1	925.2	994.3	1005.2
145°	624.4	642.2	659.8	664.2	703.4	755.6	781.7	819.4	894.7	951.2	959.4
147.5°	648.8	666.1	683.3	687.6	719.0	760.8	781.7	811.4	870.6	915.0	921.9
150°	664.8	680.4	695.9	699.8	727.1	763.5	781.7	806.8	856.8	894.3	899.9
152.5°	681.3	693.1	704.9	707.8	732.5	765.3	781.7	803.1	845.9	877.9	882.1
155°	705.7	714.5	723.2	725.4	744.1	769.2	781.7	798.8	832.7	858.2	861.0
157.5°	723.8	732.3	740.7	742.9	755.8	773.1	781.7	794.9	821.3	841.2	843.1
160°	736.0	742.6	749.2	750.9	761.2	774.9	781.7	793.0	815.7	832.7	833.8
162.5°	748.2	753.2	758.1	759.4	766.8	776.8	781.7	791.3	810.4	824.7	825.8
165°	761.5	765.9	770.5	771.6	775.0	779.5	781.7	788.5	802.2	812.5	813.6
167.5°	773.7	775.8	778.0	778.5	781.3	785.1	787.0	791.5	800.5	807.2	807.7
170°	781.7	783.8	786.0	786.5	786.7	786.9	787.0	791.5	800.5	807.2	807.2
172.5°	786.0	786.4	786.9	787.0	787.0	787.0	787.0	790.6	797.6	802.9	802.5
175°	791.8	791.8	791.8	791.8	790.1	788.0	787.0	789.2	793.7	797.1	797.1
177.5°	791.8	791.8	791.8	791.8	790.6	789.0	788.1	789.9	793.4	796.0	795.5
180°	791.8	791.8	791.8	791.8	791.8	791.8	791.8	791.8	791.8	791.8	791.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	350.1	350.1
2.5°	373.8	371.5
5°	480.7	483.0
7.5°	647.3	646.2
10°	805.0	815.0
12.5°	919.7	922.0
15°	989.6	994.0
17.5°	1016.6	1017.7
20°	1017.7	1015.4
22.5°	1005.4	1003.1
25°	990.7	989.6
27.5°	977.2	978.3
30°	971.5	974.9
32.5°	971.5	977.2
35°	973.8	979.5
37.5°	972.6	979.5
40°	968.2	976.1
42.5°	955.8	961.4
45°	936.7	943.4
47.5°	911.9	916.4
50°	880.4	884.9
52.5°	840.9	842.1
55°	793.6	798.2
57.5°	743.0	744.1
60°	686.7	690.1
62.5°	627.1	627.1
65°	564.0	566.2
67.5°	498.8	504.4
70°	432.3	433.4
72.5°	367.0	367.0
75°	299.5	300.6
77.5°	235.3	235.3
80°	174.5	175.6
82.5°	120.5	122.7
85°	75.4	75.4
87.5°	34.9	31.5
90°	20.2	20.2
92.5°	80.9	64.8
95°	281.9	233.3
97.5°	675.6	582.9
100°	973.3	863.0
102.5°	1266.2	1171.8
105°	1639.7	1588.9
107.5°	1884.3	1896.6
110°	1977.6	2030.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1985.9	2067.1
115°	1933.3	2045.9
117.5°	1821.6	1946.5
120°	1731.6	1853.0
122.5°	1644.0	1763.7
125°	1518.9	1629.3
127.5°	1406.6	1499.6
130°	1340.3	1426.2
132.5°	1280.1	1357.2
135°	1197.8	1264.2
137.5°	1131.8	1186.1
140°	1086.4	1137.2
142.5°	1048.9	1092.5
145°	992.6	1025.6
147.5°	949.3	976.7
150°	922.1	944.3
152.5°	898.9	915.6
155°	872.1	883.2
157.5°	850.9	858.7
160°	838.3	842.8
162.5°	830.0	834.3
165°	818.1	822.6
167.5°	809.6	811.4
170°	807.2	807.2
172.5°	800.9	799.3
175°	797.1	797.1
177.5°	793.6	791.8
180°	791.8	791.8



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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	3.48	4.24	4.55	5.31	6.79	16.62	17.38	17.69	18.46	19.93
	3H	4.17	4.86	5.26	5.94	7.43	18.43	19.12	19.51	20.20	21.69
	4H	4.47	5.12	5.56	6.21	7.70	19.06	19.71	20.16	20.80	22.30
	6H	4.71	5.31	5.82	6.40	7.91	19.48	20.07	20.58	21.17	22.67
	8H	4.78	5.35	5.88	6.46	7.96	19.59	20.16	20.69	21.26	22.77
	12H	4.79	5.33	5.90	6.43	7.96	19.64	20.19	20.76	21.29	22.81
4H	2H	10.66	11.30	11.76	12.39	13.89	16.88	17.53	17.98	18.62	20.11
	3H	12.22	12.76	13.32	13.87	15.38	18.90	19.44	20.01	20.56	22.07
	4H	12.31	12.81	13.42	13.91	15.44	19.65	20.15	20.76	21.26	22.79
	6H	12.31	12.74	13.43	13.87	15.39	20.17	20.60	21.29	21.73	23.25
	8H	12.29	12.69	13.41	13.81	15.35	20.33	20.73	21.45	21.85	23.39
	12H	12.24	12.60	13.37	13.73	15.28	20.41	20.77	21.54	21.90	23.45
8H	4H	13.73	14.13	14.85	15.25	16.79	19.71	20.11	20.82	21.23	22.77
	6H	13.97	14.30	15.11	15.46	17.00	20.32	20.65	21.46	21.81	23.35
	8H	13.99	14.28	15.13	15.42	16.98	20.53	20.82	21.68	21.96	23.52
	12H	13.95	14.21	15.10	15.34	16.94	20.66	20.91	21.81	22.05	23.64
12H	4H	13.87	14.23	15.00	15.36	16.91	19.65	20.02	20.79	21.15	22.69
	6H	14.22	14.51	15.37	15.66	17.21	20.30	20.59	21.45	21.73	23.29
	8H	14.29	14.54	15.44	15.68	17.27	20.52	20.77	21.67	21.91	23.50