

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: P937488

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937488
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-B2750-1D-UNV-W2A-W-6-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

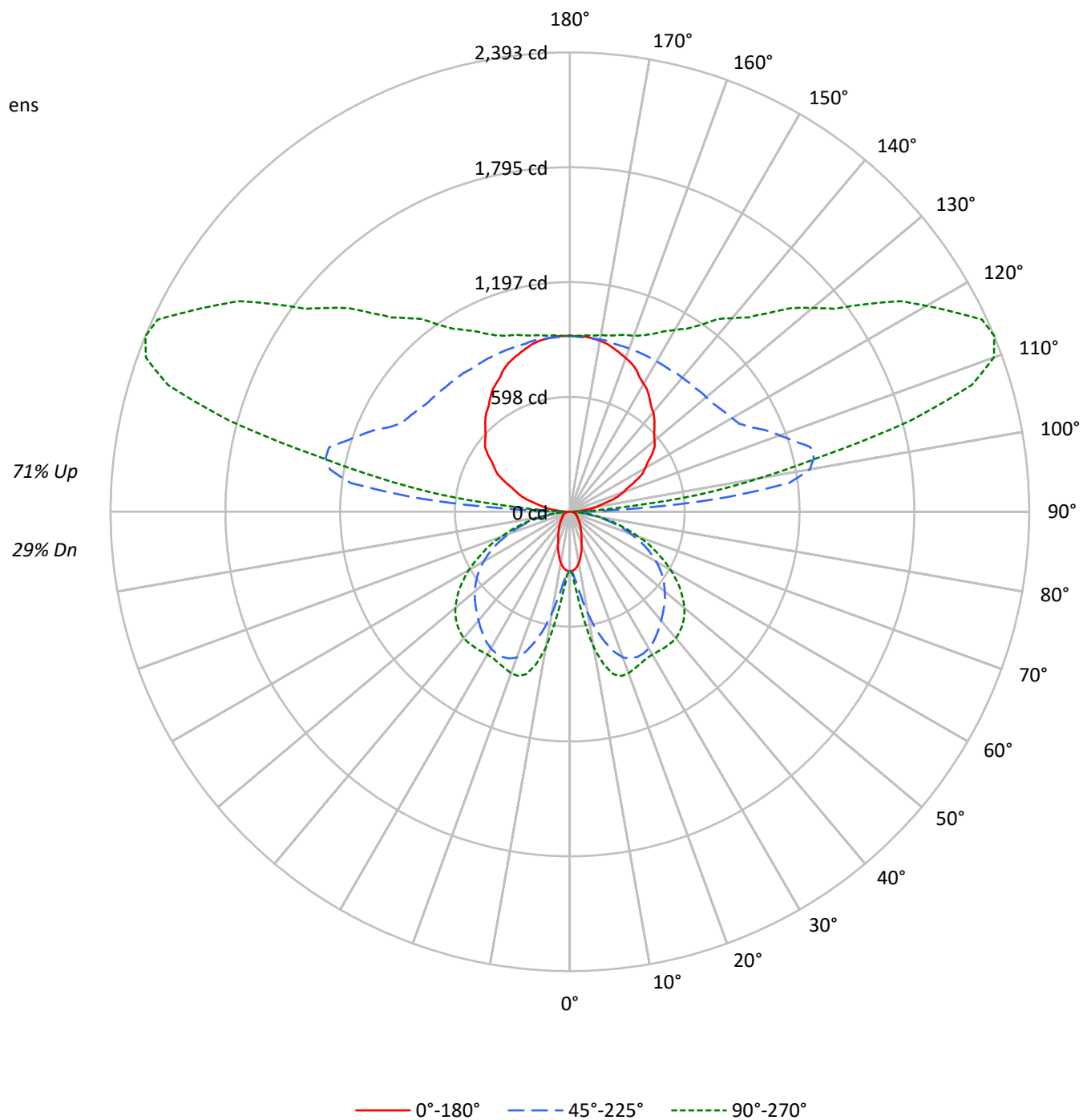
Lumens per Lamp: N/A
Luminaire Lumens: 8331.7 lumens
Efficiency: N/A
Efficacy: 134.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

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

TEST NUMBER: P937488

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-3000K

Luminous Intensity Polar Plot



TEST NUMBER: P937488

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	1908	1908	1908
5°	1863	2204	2565
10°	1690	3213	4252
15°	1435	4197	5135
20°	1169	4862	5233
25°	975	5087	5126
30°	821	5118	5117
35°	726	5031	5249
40°	632	4920	5386
45°	572	4837	5407
50°	524	4762	5317
55°	501	4654	5082
60°	513	4448	4710
65°	533	4136	4197
70°	566	3604	3547
75°	626	2936	2768
80°	677	2033	1865
85°	596	1079	955

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5407 cd/sqm

TEST NUMBER: P937488

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	0.5
10°-20°	176.8	2.1
20°-30°	309.3	3.7
30°-40°	398.2	4.8
40°-50°	444.7	5.3
50°-60°	426.0	5.1
60°-70°	337.6	4.1
70°-80°	198.5	2.4
80°-90°	58.7	0.7
90°-100°	446.8	5.4
100°-110°	1174.7	14.1
110°-120°	1218.0	14.6
120°-130°	977.0	11.7
130°-140°	766.6	9.2
140°-150°	588.4	7.1
150°-160°	423.7	5.1
160°-170°	259.3	3.1
170°-180°	87.6	1.1
0°-30°	526.0	6.3
0°-40°	924.2	11.1
0°-60°	1794.9	21.5
0°-90°	2389.6	28.7
90°-120°	2839.5	34.1
90°-150°	5171.5	62.1
90°-180°	5942.0	71.3
0°-180°	8331.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	308	308	308	308	308	
5°	300	322	363	411	426	28
15°	225	416	700	849	876	63
25°	144	471	834	871	872	66
35°	97	450	785	830	863	61
45°	66	359	694	795	831	51
55°	48	228	589	684	703	43
65°	38	121	437	492	499	37
75°	28	74	240	264	265	29
85°	10	23	60	66	66	11
90°	6	17	47	23	23	6
95°	59	231	770	397	270	66
105°	212	320	1299	1972	1839	224
115°	376	456	1040	2075	2368	371
125°	523	586	946	1599	1886	464
135°	623	686	917	1291	1464	482
145°	723	769	905	1101	1187	453
155°	817	840	905	994	1022	375
165°	882	893	905	941	952	249
175°	917	917	911	923	923	87
180°	917	917	917	917	917	

TEST NUMBER: P937488

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4
2.5°	308.4	308.4	310.4	311.4	313.4	314.4	316.4	318.4	324.3	325.3	327.3
5°	300.5	304.5	317.4	322.3	336.2	355.1	362.9	375.9	402.7	410.6	415.6
7.5°	288.6	297.6	329.2	337.2	371.9	421.5	442.3	470.1	512.7	533.6	550.5
10°	269.8	288.6	345.1	364.0	420.5	495.9	534.6	573.3	637.7	666.4	677.4
12.5°	249.0	279.7	362.0	387.8	469.1	579.2	625.8	668.5	741.9	780.5	786.4
15°	225.1	266.8	377.8	415.6	520.7	648.6	700.2	752.8	821.2	848.9	855.9
17.5°	204.3	256.9	392.7	432.5	560.3	711.1	763.7	807.3	862.8	881.7	886.6
20°	178.6	241.0	402.7	454.3	602.1	756.8	807.3	841.1	878.7	890.7	892.6
22.5°	159.6	224.1	408.6	462.1	629.8	784.5	827.2	853.9	879.7	883.7	884.6
25°	143.9	205.3	407.6	471.1	653.6	801.3	834.1	853.9	868.8	870.7	870.7
27.5°	129.0	184.5	403.7	473.1	671.5	805.4	831.1	845.0	851.9	855.9	855.9
30°	116.1	164.7	393.7	469.1	679.4	801.3	822.2	829.1	836.0	842.0	845.0
32.5°	106.1	145.8	378.8	461.2	680.3	791.5	806.4	810.3	820.2	834.1	839.1
35°	97.2	127.0	362.0	450.3	674.4	775.6	785.4	789.5	809.3	830.1	837.0
37.5°	88.2	113.1	340.2	431.5	665.5	756.8	763.7	770.7	801.3	826.2	834.1
40°	79.4	101.2	314.4	410.6	651.6	733.9	739.9	750.7	791.5	820.2	828.1
42.5°	72.4	91.2	286.6	388.8	633.7	708.1	717.0	732.9	779.5	810.3	819.2
45°	66.5	81.3	256.9	359.0	610.9	681.3	694.2	716.0	765.6	795.4	803.3
47.5°	60.5	74.3	226.1	328.2	586.2	654.6	671.5	696.2	746.8	775.6	782.5
50°	55.5	67.4	195.4	295.5	559.4	625.8	645.6	671.5	723.0	749.8	758.7
52.5°	51.6	61.5	166.6	262.9	528.6	596.0	618.9	645.6	694.2	720.1	726.0
55°	47.6	56.5	141.8	228.1	496.8	564.3	589.1	614.9	662.5	684.3	688.3
57.5°	45.7	52.6	121.0	195.4	463.1	528.6	556.4	580.2	624.8	641.7	645.6
60°	42.7	49.6	105.1	167.6	426.4	494.9	518.7	542.5	580.2	594.1	597.0
62.5°	39.6	47.6	93.3	140.8	388.8	455.2	479.0	500.9	532.5	542.5	546.4
65°	37.7	45.7	84.3	121.0	350.1	413.5	437.4	456.2	482.0	491.9	493.9
67.5°	35.7	43.7	77.4	104.1	311.4	371.9	389.8	407.6	427.4	437.4	438.4
70°	32.7	41.6	71.4	92.2	271.7	324.3	339.2	358.0	373.9	378.8	381.9
72.5°	30.8	38.7	67.4	83.3	231.1	278.6	292.5	303.5	317.4	322.3	322.3
75°	27.8	34.7	63.5	74.3	189.4	228.1	240.0	250.9	261.8	263.9	260.8
77.5°	24.7	30.8	54.5	62.5	147.8	180.5	190.4	196.4	205.3	207.3	208.2
80°	20.8	26.8	42.7	48.6	107.1	132.9	139.8	144.8	152.7	152.7	154.7
82.5°	15.9	20.8	30.8	34.7	72.4	91.2	97.2	100.2	105.1	105.1	105.1
85°	10.0	12.9	19.8	22.8	43.7	55.5	59.6	60.5	64.5	65.5	65.5
87.5°	4.9	6.9	12.9	13.9	22.8	28.8	28.8	30.8	30.8	29.8	28.8
90°	6.1	11.0	16.0	17.3	27.1	40.2	46.7	41.5	31.2	23.4	23.4
92.5°	24.6	66.5	108.3	118.7	166.9	231.1	263.3	230.7	165.6	116.8	112.2
95°	59.1	135.6	212.2	231.3	410.8	650.0	769.6	686.7	521.0	396.8	382.7
97.5°	102.1	169.7	237.2	254.1	553.2	952.2	1151.6	1099.3	994.6	916.0	889.2
100°	135.4	196.6	257.8	273.1	605.1	1047.7	1269.1	1272.9	1280.6	1286.3	1254.4
102.5°	163.7	220.9	278.0	292.3	629.0	1077.9	1302.3	1369.1	1502.5	1602.5	1575.2
105°	211.6	260.0	308.4	320.5	646.6	1081.3	1298.7	1448.2	1747.3	1971.6	1956.9
107.5°	260.8	306.0	351.1	362.4	649.9	1033.1	1224.8	1433.4	1850.6	2163.6	2167.1
110°	294.0	334.7	375.6	385.7	644.9	990.5	1163.3	1396.5	1862.9	2212.8	2228.1

TEST NUMBER: P937488

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	326.7	365.5	404.4	414.0	645.1	953.3	1107.3	1346.0	1823.4	2181.4	2204.9
115°	375.9	411.7	447.4	456.4	651.1	910.5	1040.2	1270.2	1730.1	2075.0	2107.7
117.5°	424.5	457.0	489.5	497.6	663.1	883.8	994.1	1201.6	1616.6	1927.9	1964.1
120°	452.8	483.4	514.0	521.7	673.0	874.8	975.6	1165.3	1544.5	1828.9	1864.0
122.5°	480.5	511.3	542.3	550.0	687.1	870.0	961.5	1132.3	1473.8	1729.8	1764.5
125°	522.9	551.1	579.3	586.3	706.3	866.2	946.2	1091.2	1381.3	1598.9	1630.8
127.5°	557.4	585.8	614.3	621.4	725.3	863.9	933.2	1057.8	1306.8	1493.7	1520.6
130°	575.8	606.5	637.1	644.7	739.3	865.3	928.3	1039.1	1260.9	1427.2	1452.1
132.5°	594.9	625.5	656.1	663.8	750.5	866.2	924.0	1023.3	1221.8	1370.6	1392.9
135°	623.2	651.1	679.0	686.0	762.9	865.3	916.6	999.7	1165.9	1290.7	1309.9
137.5°	652.0	679.6	707.4	714.3	781.3	870.7	915.4	985.7	1126.2	1231.6	1247.3
140°	676.1	701.5	727.0	733.3	792.5	871.5	911.1	971.8	1093.2	1184.2	1198.9
142.5°	694.5	718.1	741.6	747.5	802.0	874.7	911.1	964.4	1071.0	1151.0	1163.6
145°	722.8	743.3	763.9	769.0	814.3	874.8	905.0	948.5	1035.8	1101.2	1110.7
147.5°	751.1	771.1	791.0	796.0	832.3	880.7	905.0	939.3	1007.9	1059.4	1067.2
150°	769.6	787.6	805.7	810.2	841.7	883.9	905.0	933.9	991.8	1035.3	1041.7
152.5°	788.7	802.4	816.0	819.5	848.0	885.9	905.0	929.7	979.2	1016.3	1021.1
155°	817.0	827.1	837.1	839.7	861.5	890.5	905.0	924.7	964.0	993.5	996.7
157.5°	837.9	847.8	857.5	860.0	875.0	895.0	905.0	920.2	950.9	973.9	976.1
160°	852.0	859.7	867.4	869.3	881.2	897.1	905.0	918.1	944.3	964.0	965.3
162.5°	866.2	871.9	877.6	879.1	887.7	899.2	905.0	916.0	938.2	954.7	955.9
165°	881.6	886.7	891.9	893.2	897.2	902.4	905.0	912.8	928.7	940.6	941.9
167.5°	895.7	898.1	900.6	901.2	904.5	908.9	911.1	916.3	926.6	934.4	935.0
170°	905.0	907.4	909.9	910.5	910.7	911.0	911.1	916.3	926.6	934.4	934.4
172.5°	909.9	910.4	911.0	911.1	911.1	911.1	911.1	915.2	923.4	929.5	929.0
175°	916.6	916.6	916.6	916.6	914.7	912.2	911.1	913.6	918.9	922.8	922.8
177.5°	916.6	916.6	916.6	916.6	915.2	913.3	912.3	914.4	918.5	921.5	920.9
180°	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	308.4	308.4
2.5°	329.2	327.3
5°	423.5	425.5
7.5°	570.3	569.3
10°	709.1	718.0
12.5°	810.3	812.3
15°	871.8	875.8
17.5°	895.6	896.6
20°	896.6	894.6
22.5°	885.6	883.7
25°	872.8	871.8
27.5°	860.9	861.9
30°	855.9	858.9
32.5°	855.9	860.9
35°	857.9	862.8
37.5°	856.9	862.8
40°	852.9	859.9
42.5°	842.0	847.0
45°	825.2	831.1
47.5°	803.3	807.3
50°	775.6	779.5
52.5°	740.9	741.9
55°	699.2	703.2
57.5°	654.6	655.6
60°	605.0	608.0
62.5°	552.5	552.5
65°	496.8	498.8
67.5°	439.4	444.3
70°	380.9	381.9
72.5°	323.3	323.3
75°	263.9	264.8
77.5°	207.3	207.3
80°	153.7	154.7
82.5°	106.1	108.1
85°	66.5	66.5
87.5°	30.8	27.8
90°	23.4	23.4
92.5°	93.6	75.0
95°	326.4	270.1
97.5°	782.0	674.8
100°	1126.7	999.0
102.5°	1465.8	1356.4
105°	1898.1	1839.4
107.5°	2181.4	2195.6
110°	2289.4	2350.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2299.0	2393.0
115°	2238.0	2368.5
117.5°	2108.8	2253.4
120°	2004.6	2145.1
122.5°	1903.2	2041.8
125°	1758.4	1886.1
127.5°	1628.4	1736.1
130°	1551.7	1651.2
132.5°	1482.1	1571.2
135°	1386.7	1463.5
137.5°	1310.2	1373.1
140°	1257.7	1316.5
142.5°	1214.3	1264.8
145°	1149.1	1187.3
147.5°	1099.0	1130.7
150°	1067.4	1093.2
152.5°	1040.5	1060.0
155°	1009.6	1022.4
157.5°	985.1	994.1
160°	970.5	975.6
162.5°	960.9	965.8
165°	947.2	952.3
167.5°	937.2	939.4
170°	934.4	934.4
172.5°	927.1	925.3
175°	922.8	922.8
177.5°	918.8	916.6
180°	916.6	916.6

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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	0.87	1.59	1.99	2.70	4.25	14.04	14.75	15.15	15.87	17.41
	3H	1.57	2.21	2.69	3.33	4.89	15.86	16.50	16.98	17.62	19.18
	4H	1.86	2.47	2.99	3.59	5.16	16.50	17.11	17.63	18.23	19.79
	6H	2.10	2.66	3.24	3.79	5.37	16.91	17.48	18.06	18.60	20.18
	8H	2.16	2.70	3.31	3.84	5.41	17.03	17.56	18.17	18.70	20.27
	12H	2.18	2.69	3.33	3.82	5.41	17.09	17.60	18.24	18.73	20.32
4H	2H	8.06	8.67	9.20	9.79	11.36	14.29	14.90	15.43	16.03	17.59
	3H	9.62	10.13	10.76	11.27	12.85	16.32	16.83	17.47	17.98	19.56
	4H	9.70	10.17	10.85	11.31	12.91	17.08	17.55	18.23	18.69	20.28
	6H	9.71	10.11	10.86	11.27	12.86	17.60	18.01	18.76	19.17	20.76
	8H	9.68	10.06	10.83	11.21	12.81	17.76	18.14	18.92	19.29	20.89
	12H	9.63	9.97	10.80	11.13	12.74	17.84	18.19	19.02	19.35	20.96
8H	4H	11.13	11.51	12.29	12.66	14.27	17.13	17.50	18.28	18.65	20.26
	6H	11.37	11.68	12.54	12.87	14.47	17.74	18.06	18.92	19.25	20.85
	8H	11.38	11.66	12.57	12.83	14.45	17.96	18.23	19.14	19.40	21.02
	12H	11.35	11.58	12.53	12.75	14.41	18.09	18.33	19.28	19.50	21.16
12H	4H	11.27	11.61	12.44	12.77	14.38	17.07	17.41	18.24	18.58	20.19
	6H	11.62	11.90	12.80	13.07	14.69	17.73	18.00	18.91	19.17	20.79
	8H	11.69	11.92	12.87	13.09	14.75	17.95	18.18	19.13	19.35	21.01