

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: P936952

Luminaire Tested: SQ4-FB-050U-125D-930-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936952
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-930-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

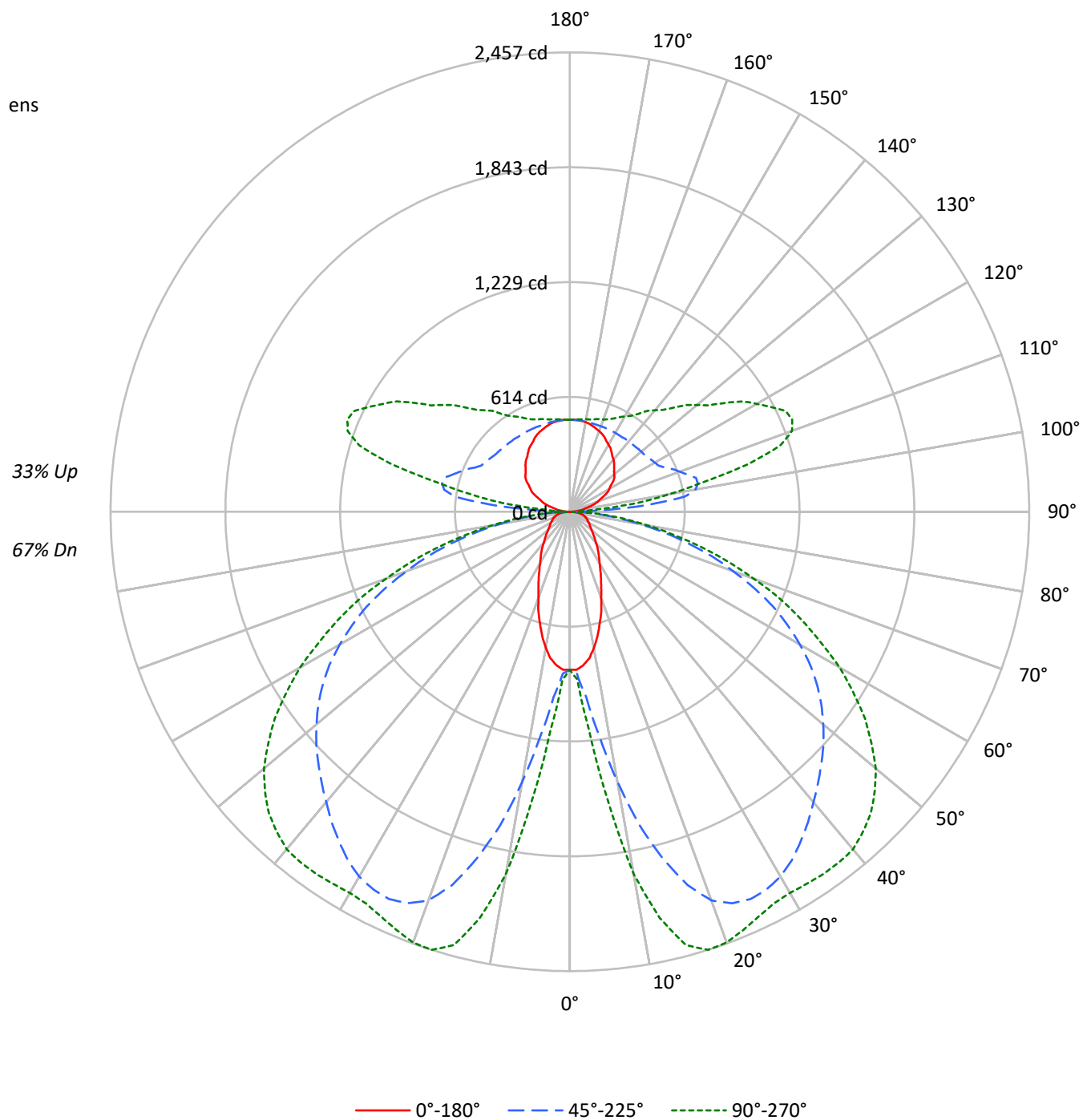
Lumens per Lamp: N/A
Luminaire Lumens: 9738.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 112
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
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3921	3921	3921
5°	3831	4533	5271
10°	3475	6607	8739
15°	2953	8632	10552
20°	2404	10003	10754
25°	2006	10468	10536
30°	1691	10534	10516
35°	1496	10359	10788
40°	1304	10132	11069
45°	1180	9965	11112
50°	1082	9815	10928
55°	1037	9596	10444
60°	1061	9174	9679
65°	1104	8534	8628
70°	1176	7442	7289
75°	1303	6068	5688
80°	1425	4208	3833
85°	1262	2233	1962

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 11112 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.3	1.1
10°-20°	484.6	5.0
20°-30°	847.6	8.7
30°-40°	1091.1	11.2
40°-50°	1218.7	12.5
50°-60°	1167.3	12.0
60°-70°	925.1	9.5
70°-80°	544.0	5.6
80°-90°	153.0	1.6
90°-100°	240.4	2.5
100°-110°	632.1	6.5
110°-120°	655.4	6.7
120°-130°	525.7	5.4
130°-140°	412.5	4.2
140°-150°	316.6	3.3
150°-160°	228.0	2.3
160°-170°	139.5	1.4
170°-180°	47.1	0.5
0°-30°	1441.5	14.8
0°-40°	2532.6	26.0
0°-60°	4918.7	50.5
0°-90°	6540.7	67.2
90°-120°	1527.9	15.7
90°-150°	2782.6	28.6
90°-180°	3197.0	32.8
0°-180°	9738.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	845	845	845	845	845	
5°	824	883	995	1125	1166	76
15°	617	1139	1919	2326	2400	172
25°	394	1291	2286	2386	2389	182
35°	266	1234	2152	2275	2364	166
45°	182	984	1902	2180	2278	141
55°	130	625	1614	1875	1927	119
65°	103	332	1199	1348	1367	102
75°	76	204	658	723	726	80
85°	27	62	163	179	182	29
90°	3	9	25	13	13	5
95°	32	124	414	214	145	35
105°	114	172	699	1061	990	121
115°	202	246	560	1116	1274	200
125°	281	315	509	860	1015	250
135°	335	369	493	694	788	259
145°	389	414	487	592	639	244
155°	440	452	487	535	550	202
165°	474	481	487	506	512	134
175°	493	493	490	496	496	47
180°	493	493	493	493	493	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	845.2	845.2	845.2	845.2	845.2	845.2	845.2	845.2	845.2	845.2	845.2
2.5°	845.2	845.2	850.7	853.4	858.8	861.5	867.0	872.5	888.8	891.5	896.9
5°	823.5	834.4	869.7	883.3	921.4	973.0	994.8	1030.1	1103.4	1125.2	1138.7
7.5°	790.9	815.4	902.3	924.1	1019.2	1155.1	1212.1	1288.3	1405.1	1462.2	1508.4
10°	739.2	790.9	945.8	997.4	1152.4	1358.9	1464.9	1570.9	1747.6	1826.4	1856.3
12.5°	682.1	766.5	992.0	1062.7	1285.5	1587.2	1715.0	1831.8	2033.0	2139.0	2155.3
15°	616.9	731.1	1035.5	1138.7	1426.9	1777.4	1918.8	2062.8	2250.4	2326.5	2345.5
17.5°	559.9	703.9	1076.3	1185.0	1535.6	1948.7	2092.7	2212.3	2364.5	2416.1	2429.7
20°	489.2	660.5	1103.4	1244.7	1649.8	2073.7	2212.3	2304.7	2408.0	2440.6	2446.0
22.5°	437.6	614.2	1119.8	1266.5	1725.8	2149.8	2266.7	2340.0	2410.7	2421.6	2424.3
25°	394.1	562.6	1117.1	1291.0	1791.1	2196.0	2285.7	2340.0	2380.8	2386.3	2386.3
27.5°	353.3	505.5	1106.1	1296.4	1840.0	2206.9	2277.5	2315.6	2334.6	2345.5	2345.5
30°	318.0	451.1	1079.0	1285.5	1861.8	2196.0	2253.1	2272.1	2291.1	2307.4	2315.6
32.5°	290.8	399.5	1038.2	1263.8	1864.4	2168.8	2209.6	2220.5	2247.7	2285.7	2299.3
35°	266.4	347.9	992.0	1233.9	1848.1	2125.4	2152.5	2163.4	2217.7	2274.8	2293.8
37.5°	241.9	309.8	932.2	1182.3	1823.7	2073.7	2092.7	2111.7	2196.0	2264.0	2285.7
40°	217.5	277.2	861.5	1125.2	1785.6	2011.2	2027.5	2057.4	2168.8	2247.7	2269.4
42.5°	198.4	250.1	785.5	1065.4	1736.7	1940.5	1965.0	2008.5	2136.2	2220.5	2244.9
45°	182.1	222.8	703.9	983.8	1674.2	1867.1	1902.5	1962.3	2098.2	2179.7	2201.4
47.5°	165.8	203.8	619.7	899.6	1606.2	1793.7	1840.0	1907.9	2046.5	2125.4	2144.4
50°	152.2	184.9	535.4	809.9	1532.8	1715.0	1769.3	1840.0	1981.3	2054.7	2079.1
52.5°	141.3	168.5	456.6	720.2	1448.6	1633.4	1695.9	1769.3	1902.5	1973.1	1989.4
55°	130.5	154.9	388.7	625.1	1361.6	1546.4	1614.4	1685.1	1815.5	1875.3	1886.2
57.5°	125.0	144.1	331.6	535.4	1269.2	1448.6	1524.7	1589.9	1712.2	1758.4	1769.3
60°	116.8	135.9	288.1	459.3	1168.7	1356.2	1421.4	1486.7	1589.9	1628.0	1636.1
62.5°	108.7	130.5	255.5	385.9	1065.4	1247.5	1312.7	1372.5	1459.5	1486.7	1497.5
65°	103.3	125.0	231.0	331.6	959.4	1133.4	1198.6	1250.2	1320.9	1348.1	1353.5
67.5°	97.8	119.6	212.0	285.4	853.4	1019.2	1068.1	1117.1	1171.4	1198.6	1201.3
70°	89.7	114.2	195.7	252.8	744.7	888.8	929.5	981.1	1024.6	1038.2	1046.4
72.5°	84.2	106.0	184.9	228.3	633.2	763.7	801.8	831.7	869.7	883.3	883.3
75°	76.1	95.2	173.9	203.8	519.1	625.1	657.7	687.6	717.5	722.9	714.8
77.5°	67.9	84.2	149.5	171.2	405.0	494.6	521.8	538.2	562.6	568.0	570.8
80°	57.1	73.4	116.8	133.1	293.5	364.2	383.2	396.8	418.5	418.5	424.0
82.5°	43.5	57.1	84.2	95.2	198.4	250.1	266.4	274.5	288.1	288.1	288.1
85°	27.1	35.3	54.4	62.5	119.6	152.2	163.1	165.8	176.7	179.4	179.4
87.5°	13.6	19.0	35.3	38.1	62.5	78.9	78.9	84.2	84.2	81.5	78.9
90°	3.3	5.9	8.6	9.2	14.5	21.6	25.1	22.3	16.8	12.6	12.6
92.5°	13.2	35.7	58.3	63.9	89.9	124.4	141.6	124.1	89.1	62.9	60.4
95°	31.8	73.0	114.2	124.5	221.0	349.7	414.1	369.5	280.4	213.5	206.0
97.5°	54.9	91.2	127.6	136.7	297.7	512.3	619.7	591.5	535.1	492.9	478.4
100°	72.8	105.8	138.7	146.9	325.6	563.8	682.9	685.0	689.1	692.1	674.9
102.5°	88.1	118.8	149.5	157.2	338.4	580.0	700.8	736.7	808.5	862.3	847.6
105°	113.9	139.9	166.0	172.5	347.9	581.9	698.8	779.2	940.2	1060.9	1053.0
107.5°	140.4	164.6	188.9	195.0	349.6	555.9	659.0	771.3	995.8	1164.2	1166.1
110°	158.2	180.1	202.1	207.6	347.1	533.0	625.9	751.4	1002.4	1190.6	1198.9

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	175.8	196.7	217.5	222.8	347.1	513.0	595.8	724.2	981.1	1173.7	1186.4
115°	202.3	221.5	240.8	245.6	350.3	490.0	559.8	683.5	930.9	1116.5	1134.0
117.5°	228.4	245.9	263.4	267.8	356.9	475.5	534.9	646.6	869.9	1037.4	1056.8
120°	243.6	260.1	276.6	280.7	362.2	470.7	525.0	627.0	831.0	984.1	1002.9
122.5°	258.5	275.1	291.7	295.9	369.7	468.1	517.4	609.2	793.0	930.8	949.5
125°	281.4	296.5	311.6	315.4	380.0	466.1	509.1	587.2	743.3	860.3	877.5
127.5°	299.9	315.2	330.4	334.3	390.3	464.9	502.1	569.2	703.2	803.7	818.2
130°	309.8	326.3	342.8	346.9	397.7	465.6	499.5	559.1	678.5	767.9	781.3
132.5°	320.1	336.5	353.1	357.2	403.8	466.1	497.2	550.6	657.4	737.5	749.4
135°	335.3	350.3	365.3	369.1	410.4	465.6	493.2	537.9	627.4	694.4	704.8
137.5°	350.9	365.8	380.6	384.3	420.4	468.5	492.6	530.4	606.0	662.7	671.1
140°	363.8	377.5	391.1	394.6	426.5	469.0	490.2	522.9	588.2	637.2	645.0
142.5°	373.7	386.3	399.0	402.1	431.5	470.6	490.2	518.9	576.3	619.4	626.2
145°	389.0	400.0	411.1	413.8	438.2	470.7	486.9	510.4	557.4	592.5	597.7
147.5°	404.1	414.9	425.7	428.3	447.8	473.9	486.9	505.4	542.3	570.0	574.2
150°	414.1	423.8	433.5	435.9	453.0	475.6	486.9	502.5	533.8	557.1	560.6
152.5°	424.4	431.8	439.1	440.9	456.3	476.7	486.9	500.3	526.8	546.8	549.5
155°	439.6	445.0	450.5	451.8	463.6	479.2	486.9	497.5	518.7	534.6	536.3
157.5°	450.8	456.1	461.4	462.8	470.8	481.6	486.9	495.1	511.6	524.0	525.2
160°	458.4	462.6	466.7	467.7	474.2	482.7	486.9	494.0	508.1	518.7	519.4
162.5°	466.1	469.2	472.2	473.0	477.7	483.9	486.9	492.9	504.8	513.8	514.4
165°	474.3	477.1	479.9	480.6	482.7	485.5	486.9	491.2	499.7	506.1	506.9
167.5°	482.0	483.2	484.6	484.9	486.7	489.0	490.2	493.0	498.7	502.8	503.2
170°	486.9	488.2	489.6	489.9	490.0	490.2	490.2	493.0	498.7	502.8	502.8
172.5°	489.6	489.9	490.2	490.2	490.2	490.2	490.2	492.5	496.9	500.2	499.9
175°	493.2	493.2	493.2	493.2	492.2	490.9	490.2	491.6	494.4	496.5	496.5
177.5°	493.2	493.2	493.2	493.2	492.4	491.4	490.9	492.0	494.2	495.9	495.5
180°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	845.2	845.2
2.5°	902.3	896.9
5°	1160.5	1166.0
7.5°	1562.7	1560.1
10°	1943.3	1967.8
12.5°	2220.5	2225.9
15°	2389.0	2399.8
17.5°	2454.2	2456.9
20°	2456.9	2451.5
22.5°	2427.1	2421.6
25°	2391.7	2389.0
27.5°	2359.1	2361.8
30°	2345.5	2353.7
32.5°	2345.5	2359.1
35°	2350.9	2364.5
37.5°	2348.2	2364.5
40°	2337.4	2356.4
42.5°	2307.4	2321.1
45°	2261.2	2277.5
47.5°	2201.4	2212.3
50°	2125.4	2136.2
52.5°	2030.2	2033.0
55°	1916.0	1927.0
57.5°	1793.7	1796.5
60°	1657.9	1666.1
62.5°	1513.8	1513.8
65°	1361.6	1367.1
67.5°	1204.0	1217.6
70°	1043.7	1046.4
72.5°	886.0	886.0
75°	722.9	725.7
77.5°	568.0	568.0
80°	421.3	424.0
82.5°	290.8	296.2
85°	182.1	182.1
87.5°	84.2	76.1
90°	12.6	12.6
92.5°	50.3	40.4
95°	175.6	145.3
97.5°	420.8	363.1
100°	606.3	537.5
102.5°	788.7	729.8
105°	1021.3	989.7
107.5°	1173.7	1181.4
110°	1231.8	1264.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1237.0	1287.6
115°	1204.2	1274.4
117.5°	1134.7	1212.5
120°	1078.6	1154.2
122.5°	1024.1	1098.7
125°	946.2	1014.9
127.5°	876.2	934.1
130°	834.9	888.4
132.5°	797.5	845.4
135°	746.1	787.5
137.5°	705.0	738.8
140°	676.7	708.3
142.5°	653.3	680.5
145°	618.3	638.9
147.5°	591.3	608.4
150°	574.4	588.2
152.5°	559.9	570.4
155°	543.2	550.1
157.5°	530.1	534.9
160°	522.2	525.0
162.5°	517.1	519.7
165°	509.6	512.4
167.5°	504.3	505.5
170°	502.8	502.8
172.5°	498.9	497.9
175°	496.5	496.5
177.5°	494.4	493.2
180°	493.2	493.2

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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	7.18	8.28	7.97	9.09	10.09	20.36	21.45	21.14	22.27	23.27
	3H	7.90	8.89	8.70	9.72	10.74	22.22	23.20	23.01	24.03	25.06
	4H	8.21	9.15	9.03	9.98	11.02	22.87	23.81	23.69	24.64	25.68
	6H	8.48	9.34	9.30	10.18	11.23	23.31	24.18	24.14	25.02	26.07
	8H	8.55	9.38	9.39	10.23	11.29	23.44	24.27	24.28	25.13	26.18
	12H	8.58	9.36	9.42	10.22	11.30	23.52	24.31	24.36	25.16	26.24
4H	2H	14.42	15.36	15.24	16.19	17.23	20.66	21.60	21.48	22.43	23.47
	3H	16.01	16.80	16.84	17.66	18.72	22.73	23.51	23.56	24.38	25.43
	4H	16.12	16.83	16.96	17.70	18.78	23.50	24.22	24.35	25.08	26.17
	6H	16.14	16.76	17.00	17.65	18.74	24.06	24.68	24.92	25.57	26.65
	8H	16.13	16.71	16.99	17.59	18.69	24.23	24.81	25.09	25.69	26.79
	12H	16.09	16.62	16.98	17.52	18.63	24.33	24.86	25.22	25.76	26.86
8H	4H	17.58	18.16	18.45	19.05	20.15	23.59	24.17	24.45	25.05	26.15
	6H	17.84	18.32	18.73	19.24	20.34	24.23	24.71	25.12	25.63	26.73
	8H	17.86	18.29	18.76	19.20	20.32	24.45	24.88	25.35	25.80	26.91
	12H	17.84	18.22	18.75	19.13	20.29	24.61	24.98	25.51	25.89	27.06
12H	4H	17.74	18.26	18.62	19.17	20.27	23.55	24.08	24.44	24.98	26.08
	6H	18.10	18.53	19.00	19.44	20.56	24.21	24.64	25.12	25.56	26.68
	8H	18.18	18.56	19.09	19.47	20.63	24.45	24.83	25.36	25.74	26.91