

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: P938433

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938433
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-92765-1D-UNV-STD-W-4-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

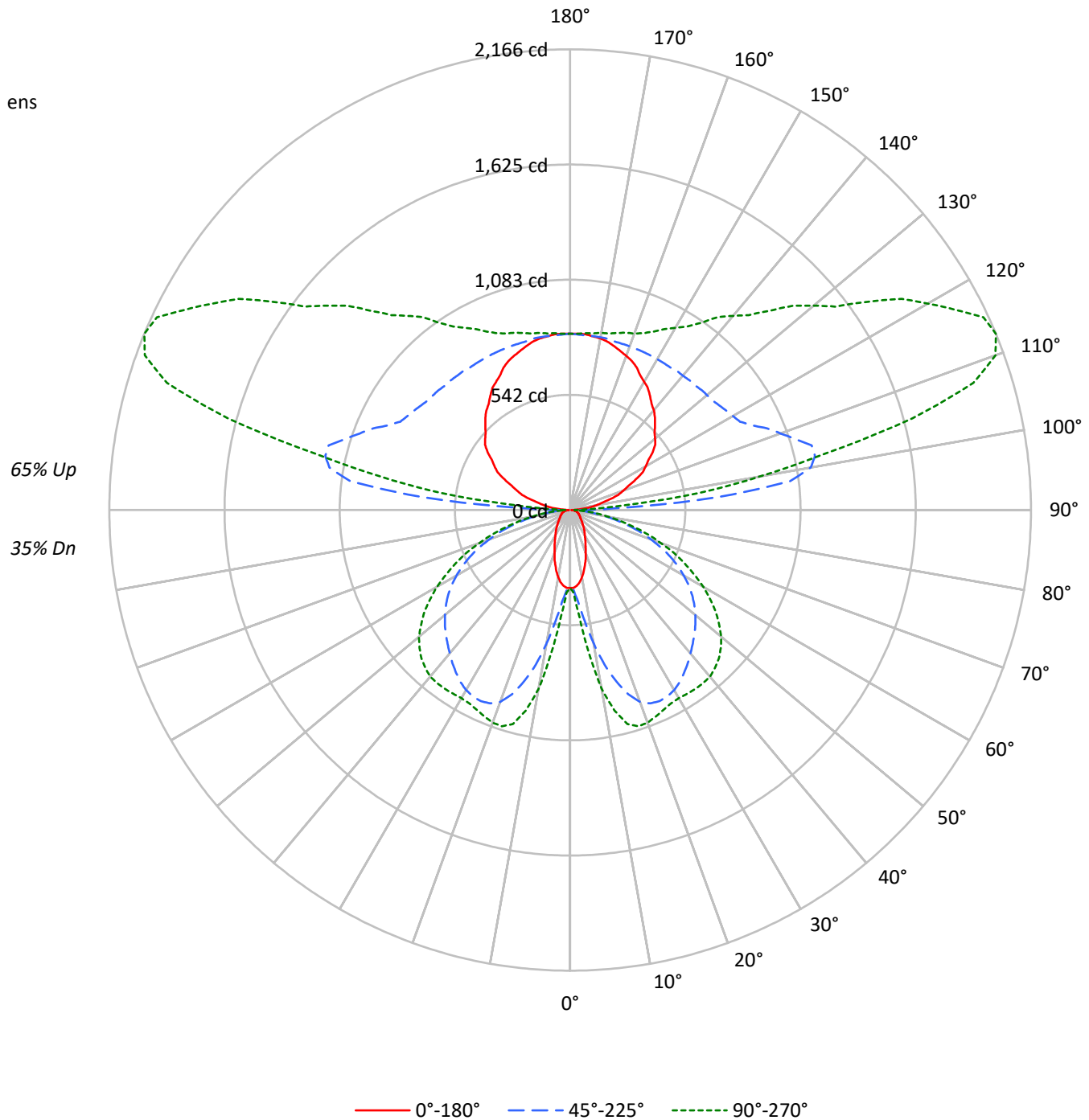
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8218.4 lumens
Efficiency: N/A
Efficacy: 113.5 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_{in}): 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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CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3404	3404	3404
5°	3322	3931	4575
10°	3009	5726	7585
15°	2555	7476	9158
20°	2078	8657	9333
25°	1731	9052	9145
30°	1458	9103	9127
35°	1287	8944	9364
40°	1119	8740	9607
45°	1011	8588	9645
50°	927	8450	9485
55°	884	8252	9064
60°	902	7880	8401
65°	934	7316	7488
70°	988	6369	6326
75°	1082	5180	4937
80°	1156	3579	3327
85°	977	1890	1702

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9645 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	0.6
10°-20°	210.3	2.6
20°-30°	367.8	4.5
30°-40°	473.5	5.8
40°-50°	528.9	6.4
50°-60°	506.6	6.2
60°-70°	401.4	4.9
70°-80°	236.1	2.9
80°-90°	68.8	0.8
90°-100°	404.4	4.9
100°-110°	1063.1	12.9
110°-120°	1102.3	13.4
120°-130°	884.2	10.8
130°-140°	693.8	8.4
140°-150°	532.5	6.5
150°-160°	383.5	4.7
160°-170°	234.6	2.9
170°-180°	79.3	1.0
0°-30°	625.6	7.6
0°-40°	1099.1	13.4
0°-60°	2134.5	26.0
0°-90°	2840.8	34.6
90°-120°	2569.7	31.3
90°-150°	4680.2	56.9
90°-180°	5378.0	65.4
0°-180°	8218.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	367	367	367	367	367	
5°	357	383	432	488	506	33
15°	268	494	833	1010	1041	75
25°	171	560	992	1036	1037	79
35°	116	536	934	987	1026	72
45°	79	427	826	946	988	61
55°	57	271	701	814	836	52
65°	45	144	520	585	593	44
75°	33	88	286	314	315	35
85°	12	27	71	78	79	12
90°	6	16	42	21	21	5
95°	54	209	696	359	244	59
105°	192	290	1175	1784	1665	203
115°	340	413	941	1878	2143	336
125°	473	531	856	1447	1707	420
135°	564	621	830	1168	1324	436
145°	654	696	819	996	1074	410
155°	739	760	819	899	925	340
165°	798	808	819	851	862	225
175°	830	830	824	835	835	79
180°	830	830	830	830	830	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8
2.5°	366.8	366.8	369.2	370.3	372.7	373.9	376.2	378.6	385.7	386.9	389.2
5°	357.4	362.1	377.4	383.3	399.8	422.2	431.7	447.0	478.9	488.3	494.2
7.5°	343.2	353.8	391.6	401.1	442.3	501.3	526.0	559.0	609.7	634.6	654.6
10°	320.8	343.2	410.4	432.8	500.0	589.8	635.7	681.7	758.4	792.6	805.6
12.5°	296.1	332.6	430.5	461.1	557.9	688.8	744.3	795.0	882.3	928.2	935.3
15°	267.7	317.2	449.3	494.2	619.2	771.4	832.7	895.2	976.6	1009.6	1017.9
17.5°	243.0	305.5	467.0	514.2	666.4	845.7	908.2	960.1	1026.2	1048.6	1054.5
20°	212.3	286.6	478.9	540.2	716.0	899.9	960.1	1000.2	1045.0	1059.2	1061.5
22.5°	189.9	266.5	485.9	549.6	748.9	933.0	983.7	1015.5	1046.2	1050.9	1052.0
25°	171.0	244.1	484.8	560.2	777.3	953.0	991.9	1015.5	1033.2	1035.5	1035.5
27.5°	153.4	219.4	480.1	562.6	798.4	957.7	988.4	1004.9	1013.1	1017.9	1017.9
30°	138.0	195.8	468.3	557.9	807.9	953.0	977.8	986.0	994.3	1001.3	1004.9
32.5°	126.2	173.3	450.6	548.4	809.1	941.2	958.9	963.6	975.4	991.9	997.9
35°	115.6	150.9	430.5	535.5	802.0	922.3	934.1	938.9	962.4	987.2	995.4
37.5°	105.0	134.4	404.5	513.1	791.4	899.9	908.2	916.5	953.0	982.5	991.9
40°	94.3	120.3	373.9	488.3	774.9	872.8	879.9	892.9	941.2	975.4	984.8
42.5°	86.1	108.5	340.9	462.4	753.6	842.1	852.7	871.6	927.1	963.6	974.2
45°	79.0	96.7	305.5	426.9	726.5	810.3	825.6	851.6	910.6	945.9	955.4
47.5°	71.9	88.5	268.9	390.4	697.0	778.5	798.4	828.0	888.2	922.3	930.6
50°	66.1	80.2	232.3	351.5	665.2	744.3	767.8	798.4	859.9	891.6	902.3
52.5°	61.3	73.1	198.2	312.6	628.7	708.8	736.0	767.8	825.6	856.3	863.3
55°	56.6	67.2	168.7	271.3	590.9	671.1	700.6	731.2	787.9	813.8	818.5
57.5°	54.3	62.5	143.9	232.3	550.8	628.7	661.7	690.0	743.0	763.1	767.8
60°	50.7	59.0	125.1	199.3	507.2	588.5	616.9	645.2	690.0	706.5	710.0
62.5°	47.2	56.6	110.9	167.5	462.4	541.4	569.7	595.6	633.4	645.2	649.9
65°	44.8	54.3	100.2	143.9	416.3	491.8	520.1	542.5	573.2	585.0	587.3
67.5°	42.5	51.9	92.0	123.8	370.3	442.3	463.5	484.8	508.3	520.1	521.3
70°	38.9	49.5	84.9	109.7	323.1	385.7	403.4	425.8	444.6	450.6	454.1
72.5°	36.6	46.0	80.2	99.1	274.8	331.4	347.9	360.9	377.4	383.3	383.3
75°	33.0	41.2	75.5	88.5	225.3	271.3	285.5	298.4	311.3	313.8	310.2
77.5°	29.5	36.6	64.9	74.3	175.8	214.7	226.5	233.5	244.1	246.5	247.7
80°	24.7	31.9	50.7	57.8	127.4	158.1	166.3	172.2	181.6	181.6	184.0
82.5°	18.8	24.7	36.6	41.2	86.1	108.5	115.6	119.2	125.1	125.1	125.1
85°	11.8	15.4	23.6	27.1	51.9	66.1	70.8	71.9	76.7	77.8	77.8
87.5°	5.9	8.2	15.4	16.5	27.1	34.2	34.2	36.6	36.6	35.3	34.2
90°	5.5	10.0	14.5	15.6	24.5	36.4	42.3	37.6	28.2	21.2	21.2
92.5°	22.2	60.1	98.0	107.5	151.0	209.1	238.2	208.8	150.0	105.8	101.6
95°	53.5	122.7	192.0	209.3	371.7	588.2	696.5	621.5	471.6	359.1	346.3
97.5°	92.4	153.5	214.7	229.9	500.7	861.7	1042.2	994.8	900.0	829.0	804.7
100°	122.5	177.9	233.3	247.2	547.6	948.2	1148.5	1152.0	1159.0	1164.2	1135.2
102.5°	148.1	199.9	251.5	264.5	569.2	975.5	1178.6	1239.0	1359.7	1450.3	1425.6
105°	191.6	235.4	279.1	290.1	585.1	978.5	1175.2	1310.5	1581.3	1784.3	1771.0
107.5°	236.1	276.9	317.8	327.9	588.1	935.0	1108.5	1297.2	1674.8	1958.1	1961.3
110°	266.1	303.0	339.9	349.1	583.7	896.4	1052.8	1263.9	1686.0	2002.6	2016.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	295.6	330.8	366.0	374.7	583.9	862.7	1002.1	1218.2	1650.2	1974.2	1995.5
115°	340.2	372.6	405.0	413.1	589.2	824.1	941.4	1149.5	1565.7	1877.9	1907.4
117.5°	384.2	413.6	443.1	450.4	600.2	799.9	899.7	1087.5	1463.1	1744.8	1777.6
120°	409.7	437.5	465.1	472.1	609.0	791.7	883.0	1054.5	1397.8	1655.2	1687.0
122.5°	434.8	462.7	490.8	497.7	621.9	787.5	870.2	1024.7	1333.8	1565.6	1596.9
125°	473.3	498.7	524.2	530.6	639.1	783.9	856.3	987.5	1250.0	1446.9	1475.9
127.5°	504.4	530.1	555.8	562.3	656.3	781.8	844.6	957.3	1182.7	1351.8	1376.2
130°	521.1	548.8	576.5	583.4	669.0	783.1	840.1	940.5	1141.1	1291.6	1314.1
132.5°	538.3	566.1	593.8	600.7	679.2	783.9	836.2	926.0	1105.7	1240.4	1260.6
135°	564.0	589.2	614.4	620.7	690.4	783.1	829.5	904.8	1055.2	1168.0	1185.4
137.5°	590.1	615.1	640.1	646.3	707.0	788.0	828.4	892.0	1019.2	1114.6	1128.8
140°	611.9	634.9	658.0	663.7	717.3	788.8	824.5	879.4	989.3	1071.7	1085.0
142.5°	628.6	649.8	671.1	676.4	725.8	791.6	824.5	872.8	969.3	1041.7	1053.1
145°	654.2	672.8	691.2	695.9	736.9	791.7	819.0	858.4	937.3	996.5	1005.2
147.5°	679.7	697.9	715.9	720.4	753.3	797.1	819.0	850.0	912.1	958.7	965.8
150°	696.5	712.8	729.1	733.2	761.8	799.9	819.0	845.2	897.6	937.0	942.8
152.5°	713.7	726.1	738.5	741.6	767.4	801.8	819.0	841.4	886.2	919.8	924.1
155°	739.4	748.6	757.7	760.0	779.6	805.9	819.0	836.8	872.4	899.1	902.1
157.5°	758.3	767.2	776.0	778.3	791.8	810.0	819.0	832.8	860.5	881.3	883.3
160°	771.0	778.0	785.0	786.7	797.5	811.8	819.0	830.9	854.6	872.4	873.5
162.5°	783.9	789.1	794.3	795.6	803.4	813.8	819.0	829.0	849.1	864.1	865.1
165°	797.8	802.5	807.2	808.4	811.9	816.7	819.0	826.1	840.5	851.2	852.4
167.5°	810.6	812.8	815.1	815.6	818.5	822.5	824.5	829.2	838.6	845.7	846.2
170°	819.0	821.2	823.4	824.0	824.2	824.4	824.5	829.2	838.6	845.7	845.7
172.5°	823.4	823.9	824.4	824.5	824.5	824.5	824.5	828.3	835.7	841.2	840.8
175°	829.5	829.5	829.5	829.5	827.8	825.6	824.5	826.8	831.6	835.1	835.1
177.5°	829.5	829.5	829.5	829.5	828.3	826.6	825.7	827.5	831.2	834.0	833.4
180°	829.5	829.5	829.5	829.5	829.5	829.5	829.5	829.5	829.5	829.5	829.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	366.8	366.8
2.5°	391.6	389.2
5°	503.6	506.0
7.5°	678.2	677.0
10°	843.3	853.9
12.5°	963.6	966.0
15°	1036.8	1041.4
17.5°	1065.1	1066.2
20°	1066.2	1063.8
22.5°	1053.3	1050.9
25°	1037.9	1036.8
27.5°	1023.7	1024.9
30°	1017.9	1021.4
32.5°	1017.9	1023.7
35°	1020.3	1026.2
37.5°	1019.0	1026.2
40°	1014.4	1022.6
42.5°	1001.3	1007.2
45°	981.3	988.4
47.5°	955.4	960.1
50°	922.3	927.1
52.5°	881.0	882.3
55°	831.5	836.2
57.5°	778.5	779.6
60°	719.5	723.0
62.5°	657.0	657.0
65°	590.9	593.2
67.5°	522.5	528.4
70°	452.9	454.1
72.5°	384.5	384.5
75°	313.8	314.9
77.5°	246.5	246.5
80°	182.8	184.0
82.5°	126.2	128.5
85°	79.0	79.0
87.5°	36.6	33.0
90°	21.2	21.2
92.5°	84.7	67.9
95°	295.4	244.4
97.5°	707.8	610.7
100°	1019.7	904.1
102.5°	1326.6	1227.6
105°	1717.8	1664.6
107.5°	1974.1	1987.0
110°	2071.9	2127.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2080.6	2165.7
115°	2025.4	2143.4
117.5°	1908.4	2039.3
120°	1814.2	1941.4
122.5°	1722.4	1847.8
125°	1591.4	1707.0
127.5°	1473.6	1571.1
130°	1404.2	1494.2
132.5°	1341.2	1421.9
135°	1254.9	1324.5
137.5°	1185.8	1242.6
140°	1138.2	1191.4
142.5°	1098.9	1144.6
145°	1039.9	1074.5
147.5°	994.6	1023.3
150°	966.1	989.3
152.5°	941.7	959.2
155°	913.7	925.3
157.5°	891.5	899.7
160°	878.2	883.0
162.5°	869.6	874.1
165°	857.1	861.8
167.5°	848.2	850.1
170°	845.7	845.7
172.5°	839.1	837.4
175°	835.1	835.1
177.5°	831.5	829.5
180°	829.5	829.5



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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	3.64	4.40	4.71	5.48	6.95	16.78	17.54	17.85	18.62	20.09
	3H	4.34	5.02	5.42	6.11	7.60	18.59	19.28	19.68	20.36	21.86
	4H	4.63	5.28	5.72	6.37	7.87	19.22	19.87	20.32	20.96	22.46
	6H	4.88	5.47	5.98	6.57	8.08	19.64	20.24	20.74	21.33	22.84
	8H	4.94	5.51	6.05	6.62	8.12	19.75	20.32	20.85	21.43	22.93
	12H	4.96	5.50	6.07	6.60	8.13	19.81	20.35	20.92	21.45	22.98
4H	2H	10.82	11.47	11.92	12.55	14.05	17.04	17.69	18.14	18.78	20.28
	3H	12.38	12.92	13.48	14.04	15.55	19.06	19.61	20.17	20.72	22.23
	4H	12.47	12.97	13.58	14.07	15.60	19.81	20.31	20.93	21.42	22.95
	6H	12.47	12.90	13.59	14.03	15.55	20.34	20.76	21.45	21.89	23.41
	8H	12.45	12.85	13.57	13.97	15.51	20.49	20.89	21.61	22.01	23.55
	12H	12.40	12.76	13.54	13.89	15.44	20.57	20.93	21.70	22.06	23.61
8H	4H	13.89	14.29	15.01	15.41	16.95	19.87	20.27	20.99	21.39	22.93
	6H	14.13	14.46	15.27	15.63	17.16	20.48	20.81	21.62	21.97	23.51
	8H	14.15	14.44	15.30	15.58	17.14	20.69	20.98	21.84	22.12	23.68
	12H	14.11	14.37	15.26	15.51	17.10	20.82	21.08	21.97	22.21	23.81
12H	4H	14.03	14.39	15.17	15.52	17.07	19.81	20.18	20.95	21.31	22.86
	6H	14.39	14.68	15.53	15.82	17.37	20.46	20.75	21.61	21.89	23.45
	8H	14.45	14.71	15.60	15.84	17.44	20.68	20.93	21.83	22.07	23.66