

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: P938410

Luminaire Tested: SQ4-FB-150U-100D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938410
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-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

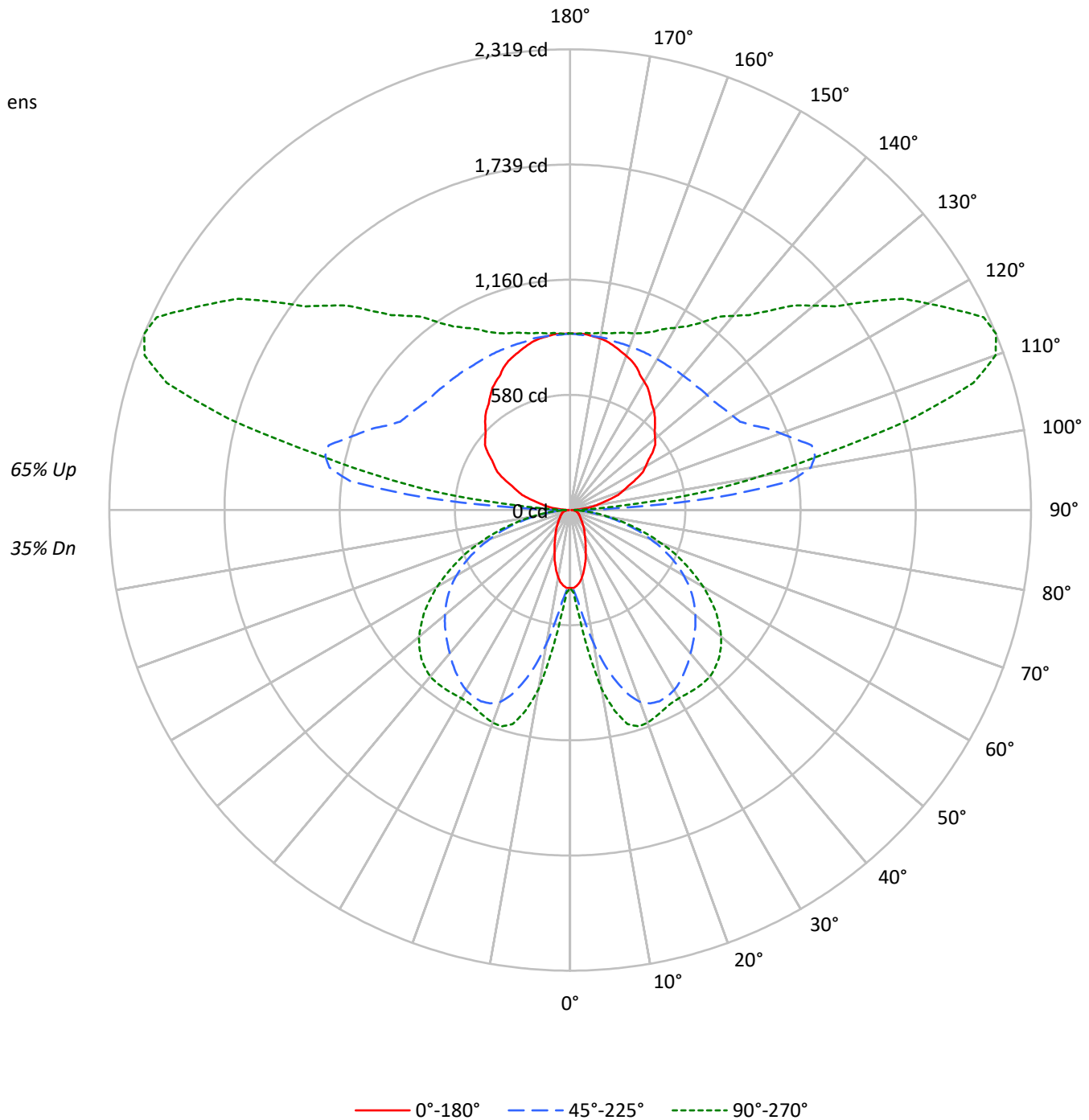
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8801.9 lumens
Efficiency: N/A
Efficacy: 121.6 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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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°	3645	3645	3645
5°	3558	4210	4901
10°	3223	6133	8123
15°	2736	8007	9809
20°	2224	9272	9997
25°	1854	9694	9794
30°	1561	9749	9776
35°	1378	9579	10028
40°	1198	9360	10289
45°	1083	9198	10330
50°	991	9051	10159
55°	947	8839	9708
60°	966	8439	8998
65°	1000	7837	8020
70°	1059	6820	6775
75°	1161	5547	5288
80°	1240	3833	3562
85°	1043	2023	1823

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	0.6
10°-20°	225.2	2.6
20°-30°	394.0	4.5
30°-40°	507.1	5.8
40°-50°	566.4	6.4
50°-60°	542.5	6.2
60°-70°	430.0	4.9
70°-80°	252.8	2.9
80°-90°	73.6	0.8
90°-100°	433.1	4.9
100°-110°	1138.6	12.9
110°-120°	1180.6	13.4
120°-130°	947.0	10.8
130°-140°	743.0	8.4
140°-150°	570.3	6.5
150°-160°	410.7	4.7
160°-170°	251.3	2.9
170°-180°	84.9	1.0
0°-30°	670.0	7.6
0°-40°	1177.1	13.4
0°-60°	2286.1	26.0
0°-90°	3042.5	34.6
90°-120°	2752.2	31.3
90°-150°	5012.5	56.9
90°-180°	5759.0	65.4
0°-180°	8801.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	383	410	462	523	542	35
15°	287	529	892	1081	1115	80
25°	183	600	1062	1109	1110	84
35°	124	574	1000	1057	1099	77
45°	85	457	884	1013	1059	65
55°	61	290	750	872	896	55
65°	48	154	557	627	635	48
75°	35	95	306	336	337	37
85°	13	29	76	83	85	13
90°	6	17	45	23	23	6
95°	57	224	746	385	262	64
105°	205	311	1259	1911	1783	217
115°	364	442	1008	2011	2296	360
125°	507	568	917	1550	1828	450
135°	604	665	888	1251	1418	467
145°	701	745	877	1067	1151	439
155°	792	814	877	963	991	364
165°	854	866	877	912	923	241
175°	888	888	883	894	894	84
180°	888	888	888	888	888	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2.5°	392.8	392.8	395.4	396.6	399.1	400.5	403.0	405.4	413.1	414.3	416.8
5°	382.8	387.8	404.2	410.5	428.2	452.2	462.3	478.8	512.9	522.9	529.2
7.5°	367.6	379.0	419.4	429.5	473.7	536.9	563.4	598.7	653.0	679.6	701.0
10°	343.6	367.6	439.6	463.6	535.6	631.6	680.9	730.1	812.2	848.8	862.8
12.5°	317.1	356.2	461.1	493.9	597.5	737.7	797.1	851.4	944.9	994.1	1001.7
15°	286.7	339.8	481.3	529.2	663.2	826.2	891.9	958.8	1046.0	1081.3	1090.1
17.5°	260.2	327.1	500.2	550.8	713.7	905.7	972.6	1028.3	1099.0	1123.0	1129.3
20°	227.3	307.0	512.9	578.6	766.8	963.8	1028.3	1071.2	1119.2	1134.4	1136.9
22.5°	203.3	285.5	520.4	588.6	802.1	999.2	1053.5	1087.6	1120.4	1125.5	1126.7
25°	183.2	261.5	519.2	600.0	832.5	1020.6	1062.3	1087.6	1106.6	1109.1	1109.1
27.5°	164.2	235.0	514.1	602.6	855.1	1025.7	1058.6	1076.3	1085.1	1090.1	1090.1
30°	147.8	209.7	501.5	597.5	865.3	1020.6	1047.2	1056.0	1064.9	1072.4	1076.3
32.5°	135.2	185.7	482.6	587.4	866.5	1008.0	1026.9	1032.0	1044.6	1062.3	1068.7
35°	123.8	161.7	461.1	573.5	859.0	987.8	1000.5	1005.5	1030.8	1057.3	1066.1
37.5°	112.4	144.0	433.3	549.5	847.6	963.8	972.6	981.5	1020.6	1052.3	1062.3
40°	101.0	128.9	400.5	522.9	829.9	934.8	942.3	956.3	1008.0	1044.6	1054.8
42.5°	92.3	116.2	365.1	495.2	807.2	901.9	913.3	933.5	992.9	1032.0	1043.4
45°	84.6	103.5	327.1	457.3	778.1	867.9	884.2	912.0	975.2	1013.1	1023.2
47.5°	77.1	94.7	288.0	418.2	746.5	833.7	855.1	886.8	951.2	987.8	996.6
50°	70.7	85.9	248.8	376.5	712.4	797.1	822.4	855.1	920.9	954.9	966.3
52.5°	65.7	78.3	212.2	334.8	673.3	759.2	788.2	822.4	884.2	917.1	924.6
55°	60.6	72.0	180.7	290.5	632.9	718.7	750.4	783.2	843.9	871.6	876.7
57.5°	58.1	66.9	154.1	248.8	589.9	673.3	708.7	739.0	795.8	817.3	822.4
60°	54.3	63.2	133.9	213.5	543.2	630.3	660.7	691.0	739.0	756.7	760.4
62.5°	50.6	60.6	118.7	179.3	495.2	579.8	610.1	637.9	678.4	691.0	696.1
65°	48.0	58.1	107.4	154.1	445.9	526.8	557.1	581.1	613.9	626.6	629.0
67.5°	45.5	55.5	98.6	132.6	396.6	473.7	496.5	519.2	544.4	557.1	558.3
70°	41.7	53.1	90.9	117.5	346.1	413.1	432.0	456.0	476.2	482.6	486.3
72.5°	39.2	49.2	85.9	106.1	294.4	355.0	372.6	386.5	404.2	410.5	410.5
75°	35.4	44.2	80.9	94.7	241.3	290.5	305.7	319.6	333.5	336.0	332.2
77.5°	31.5	39.2	69.5	79.5	188.2	229.9	242.5	250.1	261.5	264.0	265.3
80°	26.5	34.1	54.3	61.9	136.4	169.3	178.1	184.4	194.5	194.5	197.0
82.5°	20.2	26.5	39.2	44.2	92.3	116.2	123.8	127.6	133.9	133.9	133.9
85°	12.6	16.4	25.2	29.1	55.5	70.7	75.8	77.1	82.1	83.4	83.4
87.5°	6.3	8.8	16.4	17.7	29.1	36.6	36.6	39.2	39.2	37.9	36.6
90°	5.9	10.7	15.5	16.7	26.3	39.0	45.3	40.2	30.2	22.7	22.7
92.5°	23.8	64.3	105.0	115.1	161.8	224.0	255.2	223.6	160.6	113.3	108.8
95°	57.3	131.4	205.6	224.2	398.1	630.0	746.0	665.7	505.1	384.6	370.9
97.5°	98.9	164.4	229.9	246.3	536.2	922.9	1116.2	1065.5	963.9	887.8	861.8
100°	131.2	190.5	249.9	264.7	586.5	1015.6	1230.1	1233.8	1241.3	1246.8	1215.8
102.5°	158.6	214.0	269.4	283.3	609.6	1044.7	1262.3	1326.9	1456.3	1553.3	1526.8
105°	205.2	252.1	298.9	310.7	626.7	1048.0	1258.7	1403.6	1693.6	1911.0	1896.8
107.5°	252.9	296.6	340.3	351.2	629.9	1001.4	1187.2	1389.4	1793.7	2097.1	2100.5
110°	285.0	324.5	364.0	373.9	625.1	960.0	1127.5	1353.6	1805.7	2144.8	2159.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	316.6	354.3	392.0	401.3	625.3	924.0	1073.3	1304.7	1767.4	2114.4	2137.1
115°	364.3	399.0	433.7	442.4	631.1	882.6	1008.3	1231.1	1676.9	2011.2	2042.9
117.5°	411.5	443.0	474.6	482.4	642.8	856.7	963.6	1164.7	1567.0	1868.7	1903.8
120°	438.8	468.5	498.2	505.6	652.3	847.9	945.7	1129.4	1497.0	1772.7	1806.7
122.5°	465.7	495.6	525.6	533.1	666.0	843.4	932.0	1097.5	1428.5	1676.7	1710.3
125°	506.9	534.1	561.5	568.2	684.5	839.6	917.1	1057.6	1338.8	1549.7	1580.7
127.5°	540.2	567.8	595.3	602.2	702.9	837.4	904.6	1025.3	1266.7	1447.8	1473.9
130°	558.1	587.7	617.4	624.8	716.5	838.7	899.8	1007.2	1222.2	1383.3	1407.4
132.5°	576.6	606.3	635.9	643.4	727.4	839.6	895.6	991.8	1184.2	1328.5	1350.1
135°	604.0	631.1	658.0	664.8	739.4	838.7	888.4	969.0	1130.1	1250.9	1269.6
137.5°	632.0	658.8	685.5	692.2	757.2	844.0	887.3	955.3	1091.6	1193.8	1209.0
140°	655.3	680.0	704.7	710.8	768.2	844.8	883.1	941.9	1059.5	1147.8	1162.0
142.5°	673.2	696.0	718.7	724.5	777.3	847.8	883.1	934.8	1038.1	1115.7	1127.9
145°	700.7	720.5	740.3	745.3	789.3	847.9	877.1	919.4	1003.9	1067.3	1076.6
147.5°	728.0	747.4	766.7	771.6	806.8	853.7	877.1	910.4	976.8	1026.7	1034.4
150°	746.0	763.5	780.9	785.3	815.9	856.7	877.1	905.2	961.4	1003.5	1009.7
152.5°	764.4	777.7	790.9	794.2	821.9	858.7	877.1	901.1	949.1	985.1	989.7
155°	791.9	801.7	811.5	813.9	835.0	863.1	877.1	896.2	934.4	963.0	966.1
157.5°	812.1	821.7	831.1	833.5	848.1	867.5	877.1	891.9	921.6	943.9	946.1
160°	825.8	833.2	840.7	842.5	854.1	869.5	877.1	889.8	915.3	934.3	935.5
162.5°	839.6	845.1	850.6	852.1	860.4	871.6	877.1	887.8	909.3	925.4	926.6
165°	854.5	859.4	864.5	865.8	869.6	874.6	877.1	884.8	900.2	911.6	912.9
167.5°	868.1	870.5	872.9	873.5	876.7	881.0	883.1	888.1	898.2	905.7	906.3
170°	877.1	879.5	881.9	882.5	882.7	883.0	883.1	888.1	898.2	905.7	905.7
172.5°	881.9	882.4	883.0	883.1	883.1	883.1	883.1	887.1	895.0	900.9	900.5
175°	888.4	888.4	888.4	888.4	886.6	884.2	883.1	885.5	890.6	894.4	894.4
177.5°	888.4	888.4	888.4	888.4	887.1	885.3	884.3	886.3	890.2	893.2	892.6
180°	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	392.8	392.8
2.5°	419.4	416.8
5°	539.4	542.0
7.5°	726.4	725.0
10°	903.2	914.5
12.5°	1032.0	1034.6
15°	1110.4	1115.4
17.5°	1140.7	1141.9
20°	1141.9	1139.4
22.5°	1128.1	1125.5
25°	1111.6	1110.4
27.5°	1096.4	1097.7
30°	1090.1	1094.0
32.5°	1090.1	1096.4
35°	1092.7	1099.0
37.5°	1091.4	1099.0
40°	1086.4	1095.2
42.5°	1072.4	1078.8
45°	1051.0	1058.6
47.5°	1023.2	1028.3
50°	987.8	992.9
52.5°	943.6	944.9
55°	890.5	895.6
57.5°	833.7	835.0
60°	770.5	774.4
62.5°	703.6	703.6
65°	632.9	635.4
67.5°	559.6	566.0
70°	485.1	486.3
72.5°	411.8	411.8
75°	336.0	337.3
77.5°	264.0	264.0
80°	195.8	197.0
82.5°	135.2	137.7
85°	84.6	84.6
87.5°	39.2	35.4
90°	22.7	22.7
92.5°	90.7	72.8
95°	316.3	261.8
97.5°	758.0	654.1
100°	1092.1	968.3
102.5°	1420.8	1314.8
105°	1839.8	1782.8
107.5°	2114.3	2128.1
110°	2219.0	2278.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2228.3	2319.4
115°	2169.3	2295.6
117.5°	2043.9	2184.1
120°	1943.0	2079.2
122.5°	1844.7	1979.0
125°	1704.4	1828.2
127.5°	1578.3	1682.7
130°	1503.9	1600.3
132.5°	1436.4	1522.8
135°	1344.0	1418.5
137.5°	1270.0	1330.8
140°	1219.0	1276.0
142.5°	1176.9	1225.9
145°	1113.7	1150.8
147.5°	1065.2	1096.0
150°	1034.7	1059.5
152.5°	1008.6	1027.3
155°	978.6	991.0
157.5°	954.8	963.6
160°	940.6	945.7
162.5°	931.3	936.1
165°	918.0	923.0
167.5°	908.4	910.5
170°	905.7	905.7
172.5°	898.6	896.8
175°	894.4	894.4
177.5°	890.5	888.4
180°	888.4	888.4



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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	3.88	4.64	4.95	5.72	7.19	17.02	17.78	18.09	18.86	20.33
	3H	4.57	5.26	5.66	6.35	7.84	18.83	19.52	19.91	20.60	22.09
	4H	4.87	5.52	5.96	6.61	8.10	19.46	20.11	20.56	21.20	22.70
	6H	5.11	5.71	6.22	6.80	8.31	19.88	20.47	20.98	21.57	23.07
	8H	5.18	5.75	6.29	6.86	8.36	19.99	20.56	21.09	21.66	23.17
	12H	5.19	5.73	6.30	6.84	8.36	20.04	20.59	21.16	21.69	23.21
4H	2H	11.06	11.71	12.16	12.79	14.29	17.28	17.93	18.38	19.02	20.51
	3H	12.62	13.16	13.72	14.27	15.78	19.30	19.84	20.41	20.96	22.47
	4H	12.71	13.21	13.82	14.31	15.84	20.05	20.55	21.16	21.66	23.19
	6H	12.71	13.14	13.83	14.27	15.79	20.57	21.00	21.69	22.13	23.65
	8H	12.69	13.09	13.81	14.21	15.75	20.73	21.13	21.85	22.25	23.79
	12H	12.64	13.00	13.77	14.13	15.68	20.81	21.17	21.94	22.30	23.85
8H	4H	14.13	14.53	15.25	15.65	17.19	20.11	20.51	21.22	21.63	23.17
	6H	14.37	14.70	15.51	15.86	17.40	20.72	21.05	21.86	22.21	23.75
	8H	14.39	14.68	15.53	15.82	17.38	20.93	21.22	22.08	22.36	23.92
	12H	14.35	14.61	15.50	15.74	17.34	21.06	21.31	22.21	22.45	24.04
12H	4H	14.27	14.63	15.40	15.76	17.31	20.05	20.42	21.19	21.55	23.09
	6H	14.62	14.91	15.77	16.06	17.61	20.70	20.99	21.85	22.13	23.69
	8H	14.69	14.94	15.84	16.08	17.67	20.92	21.17	22.07	22.31	23.90