

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: P938436

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938436
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-4-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

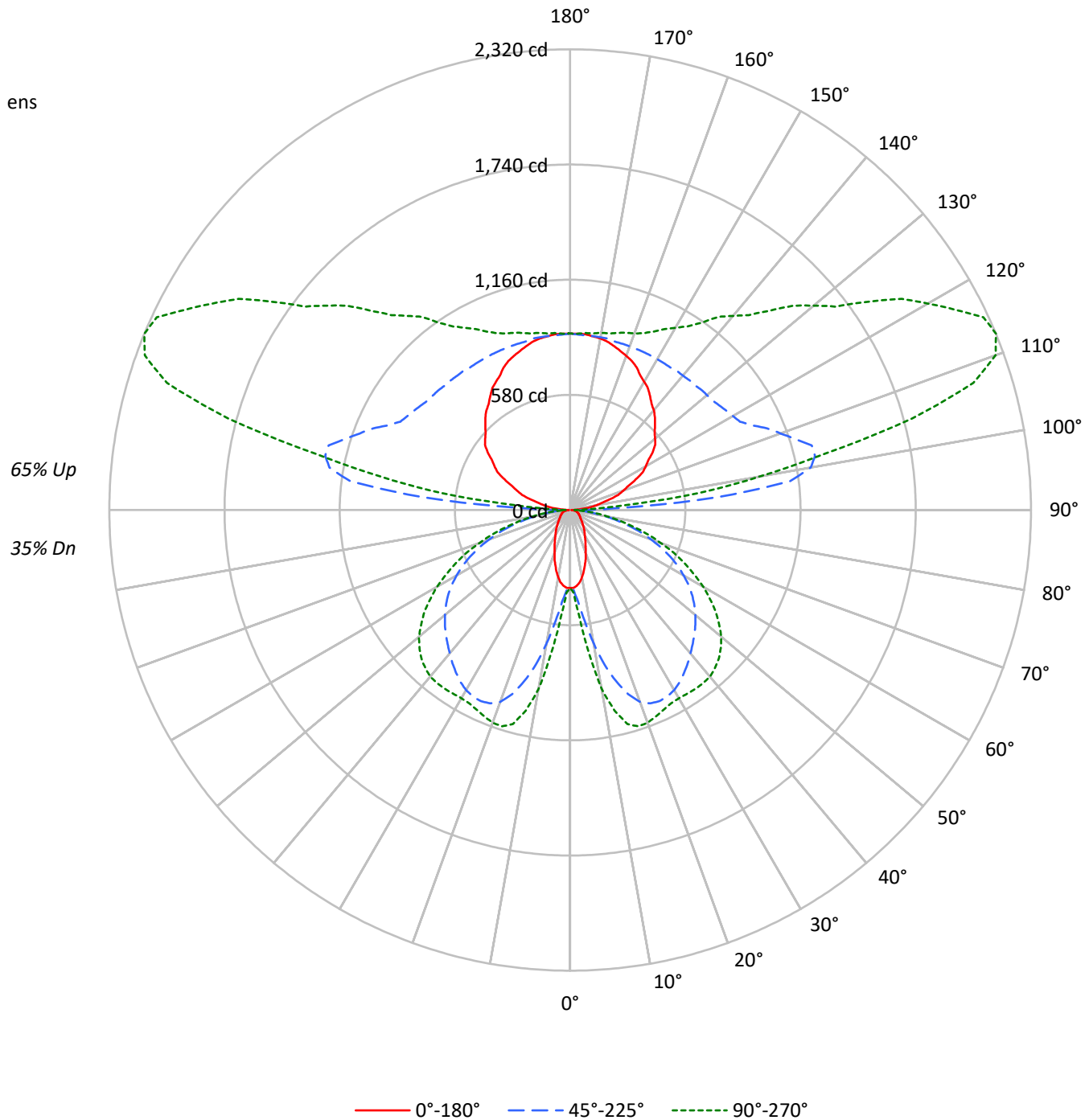
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8803.7 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

TEST NUMBER: P938436
CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-6500K

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°	3646	3646	3646
5°	3559	4211	4902
10°	3224	6134	8125
15°	2737	8008	9811
20°	2225	9274	9998
25°	1854	9696	9796
30°	1561	9750	9778
35°	1378	9581	10030
40°	1199	9362	10291
45°	1083	9200	10332
50°	992	9052	10161
55°	947	8840	9710
60°	966	8440	8999
65°	1000	7838	8022
70°	1059	6822	6776
75°	1161	5548	5288
80°	1240	3833	3564
85°	1043	2023	1823

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10332 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	0.6
10°-20°	225.3	2.6
20°-30°	394.0	4.5
30°-40°	507.2	5.8
40°-50°	566.6	6.4
50°-60°	542.6	6.2
60°-70°	430.1	4.9
70°-80°	252.9	2.9
80°-90°	73.6	0.8
90°-100°	433.2	4.9
100°-110°	1138.8	12.9
110°-120°	1180.8	13.4
120°-130°	947.2	10.8
130°-140°	743.2	8.4
140°-150°	570.4	6.5
150°-160°	410.8	4.7
160°-170°	251.3	2.9
170°-180°	84.9	1.0
0°-30°	670.1	7.6
0°-40°	1177.4	13.4
0°-60°	2286.6	26.0
0°-90°	3043.1	34.6
90°-120°	2752.8	31.3
90°-150°	5013.5	56.9
90°-180°	5761.0	65.4
0°-180°	8803.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	383	411	462	523	542	35
15°	287	529	892	1082	1116	80
25°	183	600	1062	1109	1111	84
35°	124	574	1001	1058	1099	77
45°	85	457	884	1013	1059	65
55°	61	291	750	872	896	55
65°	48	154	557	627	636	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	2012	2296	360
125°	507	568	917	1550	1828	450
135°	604	665	889	1251	1419	467
145°	701	745	877	1068	1151	439
155°	792	814	877	963	991	364
165°	855	866	877	912	923	241
175°	889	889	883	895	895	84
180°	889	889	889	889	889	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9
2.5°	392.9	392.9	395.5	396.7	399.2	400.5	403.0	405.5	413.2	414.4	416.9
5°	382.9	387.9	404.3	410.6	428.3	452.3	462.4	478.9	513.0	523.0	529.3
7.5°	367.7	379.0	419.5	429.6	473.8	537.0	563.5	598.9	653.2	679.8	701.2
10°	343.7	367.7	439.7	463.7	535.7	631.8	681.0	730.2	812.4	849.0	863.0
12.5°	317.2	356.3	461.2	494.0	597.6	737.9	797.3	851.6	945.1	994.3	1001.9
15°	286.8	339.8	481.3	529.3	663.3	826.3	892.0	959.0	1046.2	1081.5	1090.3
17.5°	260.3	327.2	500.3	550.9	713.9	905.9	972.8	1028.5	1099.2	1123.2	1129.6
20°	227.4	307.0	513.0	578.7	767.0	964.0	1028.5	1071.4	1119.4	1134.6	1137.1
22.5°	203.4	285.5	520.6	588.7	802.2	999.4	1053.7	1087.9	1120.7	1125.7	1127.0
25°	183.2	261.5	519.3	600.1	832.7	1020.8	1062.5	1087.9	1106.8	1109.3	1109.3
27.5°	164.3	235.0	514.2	602.7	855.3	1025.9	1058.8	1076.5	1085.3	1090.3	1090.3
30°	147.8	209.7	501.6	597.6	865.5	1020.8	1047.4	1056.2	1065.1	1072.7	1076.5
32.5°	135.2	185.7	482.7	587.5	866.7	1008.2	1027.1	1032.2	1044.8	1062.5	1068.9
35°	123.8	161.7	461.2	573.6	859.1	988.0	1000.7	1005.7	1031.0	1057.5	1066.3
37.5°	112.4	144.0	433.3	549.6	847.8	964.0	972.8	981.7	1020.8	1052.5	1062.5
40°	101.1	128.9	400.5	523.0	830.1	935.0	942.5	956.5	1008.2	1044.8	1055.0
42.5°	92.3	116.3	365.2	495.3	807.3	902.1	913.5	933.7	993.1	1032.2	1043.6
45°	84.6	103.6	327.2	457.3	778.2	868.0	884.4	912.2	975.4	1013.3	1023.4
47.5°	77.1	94.8	288.1	418.2	746.7	833.9	855.3	887.0	951.4	988.0	996.8
50°	70.8	86.0	248.9	376.5	712.6	797.3	822.5	855.3	921.1	955.1	966.5
52.5°	65.7	78.3	212.3	334.9	673.4	759.3	788.4	822.5	884.4	917.3	924.8
55°	60.6	72.0	180.7	290.6	633.0	718.9	750.5	783.3	844.0	871.8	876.8
57.5°	58.1	66.9	154.1	248.9	590.1	673.4	708.8	739.1	795.9	817.4	822.5
60°	54.3	63.2	134.0	213.5	543.3	630.4	660.8	691.1	739.1	756.8	760.6
62.5°	50.6	60.6	118.8	179.4	495.3	579.9	610.2	638.1	678.5	691.1	696.2
65°	48.0	58.1	107.4	154.1	446.0	526.9	557.2	581.2	614.1	626.7	629.2
67.5°	45.5	55.6	98.6	132.6	396.7	473.8	496.6	519.3	544.6	557.2	558.4
70°	41.7	53.1	90.9	117.5	346.1	413.2	432.1	456.1	476.3	482.7	486.4
72.5°	39.2	49.2	86.0	106.1	294.4	355.0	372.7	386.6	404.3	410.6	410.6
75°	35.4	44.2	80.9	94.8	241.3	290.6	305.8	319.7	333.5	336.1	332.3
77.5°	31.6	39.2	69.5	79.6	188.3	230.0	242.6	250.1	261.5	264.1	265.3
80°	26.5	34.1	54.3	61.9	136.4	169.3	178.1	184.4	194.6	194.6	197.1
82.5°	20.2	26.5	39.2	44.2	92.3	116.3	123.8	127.7	134.0	134.0	134.0
85°	12.6	16.4	25.2	29.1	55.6	70.8	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	40.3	30.2	22.7	22.7
92.5°	23.8	64.4	105.0	115.1	161.8	224.0	255.2	223.7	160.6	113.3	108.8
95°	57.3	131.5	205.7	224.2	398.2	630.1	746.1	665.8	505.2	384.7	371.0
97.5°	99.0	164.5	230.0	246.3	536.3	923.1	1116.5	1065.7	964.1	888.0	862.0
100°	131.2	190.6	249.9	264.8	586.6	1015.8	1230.3	1234.1	1241.5	1247.1	1216.1
102.5°	158.6	214.1	269.5	283.3	609.8	1044.9	1262.6	1327.2	1456.6	1553.6	1527.1
105°	205.2	252.1	299.0	310.8	626.8	1048.2	1258.9	1403.9	1693.9	1911.4	1897.2
107.5°	252.9	296.6	340.4	351.3	630.0	1001.6	1187.4	1389.6	1794.1	2097.5	2100.9
110°	285.0	324.5	364.1	374.0	625.3	960.2	1127.7	1353.9	1806.1	2145.2	2160.0



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CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-6500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	316.7	354.4	392.0	401.4	625.4	924.2	1073.5	1304.9	1767.7	2114.8	2137.6
115°	364.4	399.1	433.8	442.5	631.2	882.8	1008.5	1231.4	1677.3	2011.6	2043.3
117.5°	411.5	443.1	474.7	482.5	642.9	856.8	963.7	1164.9	1567.3	1869.1	1904.2
120°	438.9	468.6	498.3	505.7	652.4	848.0	945.9	1129.6	1497.3	1773.1	1807.1
122.5°	465.8	495.7	525.7	533.2	666.2	843.6	932.2	1097.7	1428.7	1677.1	1710.6
125°	507.0	534.2	561.6	568.4	684.6	839.7	917.3	1057.8	1339.1	1550.0	1581.0
127.5°	540.3	567.9	595.4	602.3	703.1	837.5	904.7	1025.5	1267.0	1448.1	1474.2
130°	558.2	587.9	617.5	625.0	716.7	838.9	900.0	1007.4	1222.4	1383.6	1407.7
132.5°	576.7	606.4	636.1	643.5	727.6	839.7	895.8	992.0	1184.4	1328.7	1350.3
135°	604.1	631.2	658.1	664.9	739.5	838.9	888.6	969.2	1130.3	1251.2	1269.8
137.5°	632.1	658.9	685.7	692.4	757.4	844.1	887.4	955.5	1091.8	1194.0	1209.2
140°	655.5	680.1	704.8	710.9	768.4	845.0	883.2	942.0	1059.7	1148.0	1162.3
142.5°	673.4	696.1	718.9	724.6	777.5	848.0	883.2	935.0	1038.3	1115.9	1128.1
145°	700.8	720.7	740.5	745.4	789.4	848.0	877.3	919.6	1004.1	1067.5	1076.8
147.5°	728.1	747.6	766.9	771.7	806.9	853.9	877.3	910.6	977.0	1027.0	1034.6
150°	746.1	763.6	781.0	785.4	816.0	856.8	877.3	905.4	961.5	1003.7	1009.9
152.5°	764.6	777.9	791.1	794.4	822.0	858.9	877.3	901.3	949.3	985.3	989.9
155°	792.0	801.9	811.6	814.1	835.1	863.3	877.3	896.4	934.6	963.2	966.3
157.5°	812.3	821.8	831.3	833.7	848.2	867.6	877.3	892.1	921.8	944.0	946.2
160°	826.0	833.4	840.9	842.7	854.3	869.7	877.3	890.0	915.5	934.5	935.7
162.5°	839.7	845.3	850.8	852.3	860.6	871.8	877.3	888.0	909.5	925.6	926.7
165°	854.6	859.6	864.7	865.9	869.8	874.8	877.3	885.0	900.4	911.8	913.1
167.5°	868.3	870.7	873.1	873.7	876.8	881.1	883.2	888.3	898.3	905.9	906.5
170°	877.3	879.7	882.1	882.7	882.9	883.1	883.2	888.3	898.3	905.9	905.9
172.5°	882.1	882.6	883.1	883.2	883.2	883.2	883.2	887.3	895.2	901.1	900.6
175°	888.6	888.6	888.6	888.6	886.8	884.4	883.2	885.7	890.8	894.6	894.6
177.5°	888.6	888.6	888.6	888.6	887.3	885.4	884.5	886.5	890.4	893.4	892.8
180°	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6



TEST NUMBER: P938436

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	392.9	392.9
2.5°	419.5	416.9
5°	539.5	542.1
7.5°	726.5	725.2
10°	903.4	914.7
12.5°	1032.2	1034.8
15°	1110.6	1115.6
17.5°	1140.9	1142.2
20°	1142.2	1139.6
22.5°	1128.3	1125.7
25°	1111.9	1110.6
27.5°	1096.7	1097.9
30°	1090.3	1094.2
32.5°	1090.3	1096.7
35°	1092.9	1099.2
37.5°	1091.6	1099.2
40°	1086.6	1095.4
42.5°	1072.7	1079.0
45°	1051.2	1058.8
47.5°	1023.4	1028.5
50°	988.0	993.1
52.5°	943.8	945.1
55°	890.7	895.8
57.5°	833.9	835.1
60°	770.7	774.5
62.5°	703.8	703.8
65°	633.0	635.5
67.5°	559.8	566.1
70°	485.2	486.4
72.5°	411.9	411.9
75°	336.1	337.3
77.5°	264.1	264.1
80°	195.8	197.1
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°	316.4	261.8
97.5°	758.2	654.2
100°	1092.4	968.5
102.5°	1421.1	1315.1
105°	1840.2	1783.2
107.5°	2114.7	2128.5
110°	2219.4	2278.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2228.8	2319.9
115°	2169.7	2296.1
117.5°	2044.3	2184.5
120°	1943.4	2079.6
122.5°	1845.1	1979.4
125°	1704.7	1828.5
127.5°	1578.6	1683.0
130°	1504.2	1600.7
132.5°	1436.7	1523.1
135°	1344.3	1418.8
137.5°	1270.2	1331.1
140°	1219.2	1276.2
142.5°	1177.2	1226.1
145°	1114.0	1151.1
147.5°	1065.4	1096.2
150°	1034.9	1059.7
152.5°	1008.8	1027.5
155°	978.8	991.2
157.5°	954.9	963.7
160°	940.8	945.9
162.5°	931.5	936.3
165°	918.1	923.2
167.5°	908.6	910.7
170°	905.9	905.9
172.5°	898.8	897.0
175°	894.6	894.6
177.5°	890.7	888.6
180°	888.6	888.6



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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	3.88	4.64	4.95	5.72	7.19	17.02	17.78	18.09	18.86	20.33
	3H	4.58	5.26	5.66	6.35	7.84	18.83	19.52	19.92	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	23.08
	8H	5.18	5.75	6.29	6.86	8.36	19.99	20.56	21.09	21.66	23.17
	12H	5.19	5.74	6.31	6.84	8.36	20.05	20.59	21.16	21.69	23.22
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	21.17	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	13.78	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	21.23	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	15.54	15.82	17.38	20.93	21.22	22.08	22.36	23.92
	12H	14.35	14.61	15.50	15.75	17.34	21.06	21.32	22.21	22.45	24.05
12H	4H	14.27	14.63	15.41	15.76	17.31	20.05	20.42	21.19	21.55	23.09
	6H	14.62	14.92	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