

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: P938482

Luminaire Tested: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-4-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938482
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-B2750-1D-UNV-STD-W-4-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

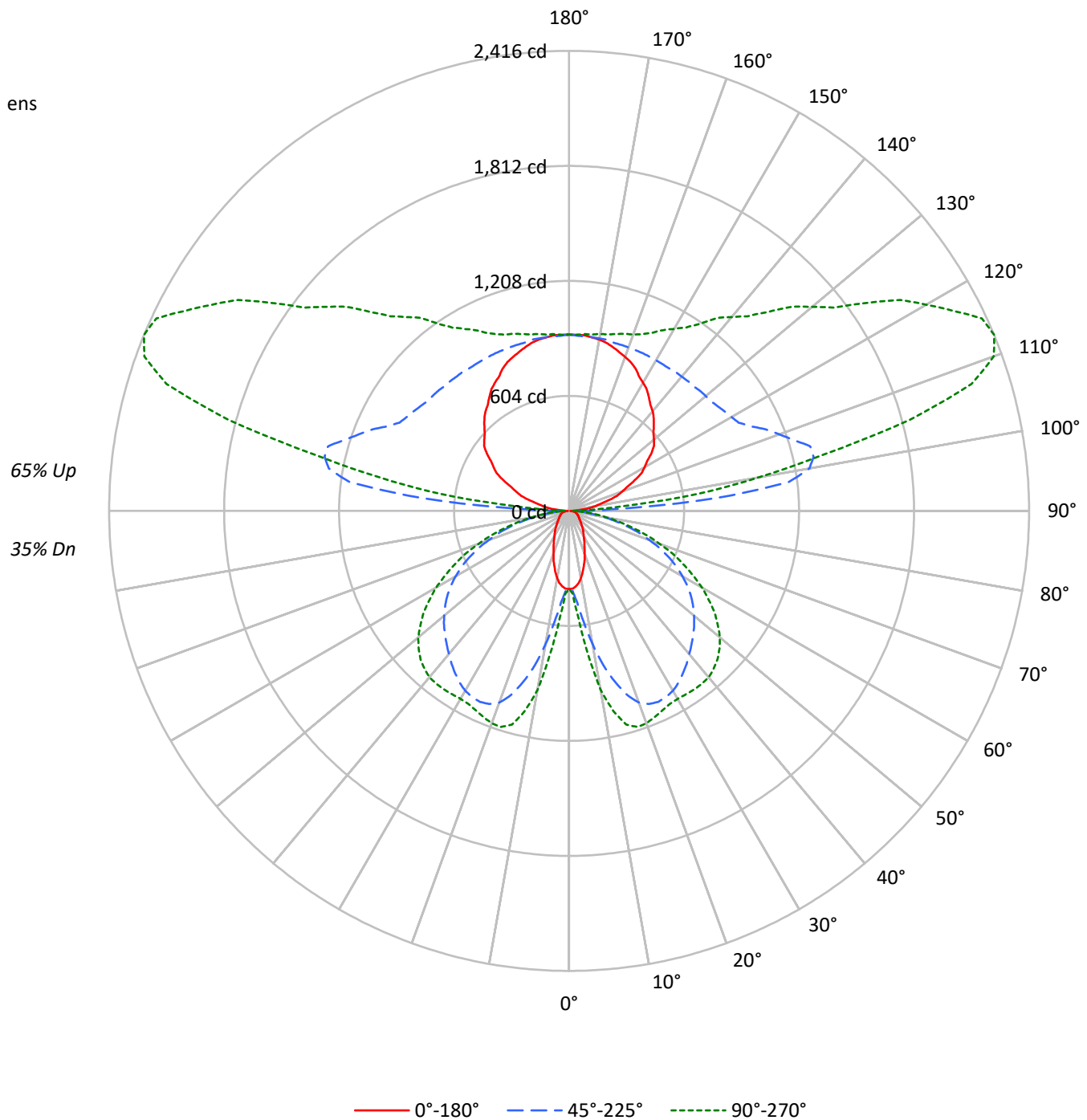
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9170.2 lumens
Efficiency: N/A
Efficacy: 126.7 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: P938482
CATALOG NUMBER: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-4-2700K

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°	3798	3798	3798
5°	3707	4387	5105
10°	3358	6390	8463
15°	2850	8342	10219
20°	2317	9659	10414
25°	1931	10100	10204
30°	1627	10156	10184
35°	1436	9980	10448
40°	1249	9753	10720
45°	1128	9583	10762
50°	1033	9430	10583
55°	986	9209	10115
60°	1007	8792	9374
65°	1042	8165	8355
70°	1102	7106	7059
75°	1210	5779	5509
80°	1292	3994	3712
85°	1085	2109	1898

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10762 cd/sqm



TEST NUMBER: P938482

CATALOG NUMBER: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-4-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	0.6
10°-20°	234.6	2.6
20°-30°	410.4	4.5
30°-40°	528.3	5.8
40°-50°	590.2	6.4
50°-60°	565.2	6.2
60°-70°	448.0	4.9
70°-80°	263.4	2.9
80°-90°	76.7	0.8
90°-100°	451.2	4.9
100°-110°	1186.2	12.9
110°-120°	1230.0	13.4
120°-130°	986.6	10.8
130°-140°	774.1	8.4
140°-150°	594.2	6.5
150°-160°	427.9	4.7
160°-170°	261.8	2.9
170°-180°	88.5	1.0
0°-30°	698.0	7.6
0°-40°	1226.4	13.4
0°-60°	2381.8	26.0
0°-90°	3169.8	34.6
90°-120°	2867.4	31.3
90°-150°	5222.2	56.9
90°-180°	6000.0	65.4
0°-180°	9170.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	409	409	409	409	409	
5°	399	428	482	545	565	37
15°	299	551	929	1127	1162	83
25°	191	625	1107	1156	1157	88
35°	129	598	1042	1102	1145	81
45°	88	476	921	1056	1103	68
55°	63	303	782	908	933	58
65°	50	161	580	653	662	50
75°	37	99	318	350	351	39
85°	13	30	79	87	88	14
90°	6	17	47	24	24	6
95°	60	234	777	401	273	66
105°	214	324	1311	1991	1857	227
115°	380	461	1050	2095	2392	375
125°	528	592	956	1614	1905	469
135°	629	693	926	1303	1478	487
145°	730	776	914	1112	1199	457
155°	825	848	914	1003	1032	379
165°	890	902	914	950	962	251
175°	926	926	920	932	932	88
180°	926	926	926	926	926	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3
2.5°	409.3	409.3	411.9	413.2	415.8	417.2	419.8	422.4	430.4	431.7	434.3
5°	398.8	404.1	421.1	427.7	446.1	471.1	481.7	498.8	534.4	544.8	551.4
7.5°	383.0	394.8	436.9	447.5	493.5	559.4	586.9	623.8	680.4	708.1	730.4
10°	358.0	383.0	458.0	483.0	558.0	658.1	709.4	760.6	846.2	884.3	898.9
12.5°	330.4	371.1	480.4	514.5	622.5	768.6	830.5	887.0	984.4	1035.7	1043.6
15°	298.7	354.0	501.4	551.4	690.9	860.7	929.2	998.9	1089.7	1126.6	1135.7
17.5°	271.1	340.8	521.1	573.8	743.6	943.6	1013.3	1071.3	1145.0	1170.0	1176.6
20°	236.8	319.8	534.4	602.8	798.9	1004.2	1071.3	1116.0	1166.0	1181.9	1184.4
22.5°	211.8	297.4	542.2	613.2	835.6	1041.0	1097.6	1133.1	1167.3	1172.6	1173.9
25°	190.8	272.4	540.9	625.1	867.3	1063.3	1106.8	1133.1	1152.9	1155.5	1155.5
27.5°	171.1	244.8	535.6	627.8	890.9	1068.6	1102.9	1121.3	1130.5	1135.7	1135.7
30°	154.0	218.4	522.5	622.5	901.5	1063.3	1091.0	1100.2	1109.4	1117.3	1121.3
32.5°	140.8	193.4	502.8	611.9	902.8	1050.2	1069.9	1075.2	1088.3	1106.8	1113.4
35°	129.0	168.4	480.4	597.5	894.9	1029.2	1042.3	1047.6	1073.9	1101.6	1110.7
37.5°	117.1	150.0	451.4	572.5	883.1	1004.2	1013.3	1022.6	1063.3	1096.3	1106.8
40°	105.3	134.3	417.2	544.8	864.6	973.9	981.8	996.3	1050.2	1088.3	1098.9
42.5°	96.1	121.1	380.4	515.9	840.9	939.6	951.5	972.6	1034.4	1075.2	1087.0
45°	88.1	107.9	340.8	476.4	810.6	904.2	921.2	950.2	1016.0	1055.5	1066.0
47.5°	80.3	98.7	300.1	435.7	777.8	868.6	890.9	923.9	991.0	1029.2	1038.3
50°	73.7	89.5	259.3	392.2	742.2	830.5	856.8	890.9	959.4	994.9	1006.8
52.5°	68.4	81.6	221.1	348.8	701.5	790.9	821.2	856.8	921.2	955.5	963.3
55°	63.1	75.0	188.2	302.7	659.4	748.8	781.8	815.9	879.2	908.1	913.3
57.5°	60.6	69.7	160.6	259.3	614.6	701.5	738.3	769.9	829.1	851.5	856.8
60°	56.6	65.8	139.5	222.4	565.9	656.7	688.3	719.9	769.9	788.3	792.2
62.5°	52.7	63.1	123.7	186.8	515.9	604.1	635.6	664.6	706.8	719.9	725.2
65°	50.0	60.6	111.9	160.6	464.5	548.8	580.4	605.4	639.6	652.8	655.4
67.5°	47.4	57.9	102.7	138.1	413.2	493.5	517.2	540.9	567.2	580.4	581.7
70°	43.4	55.3	94.7	122.4	360.6	430.4	450.1	475.1	496.1	502.8	506.7
72.5°	40.8	51.3	89.5	110.6	306.7	369.8	388.2	402.7	421.1	427.7	427.7
75°	36.9	46.0	84.3	98.7	251.4	302.7	318.5	333.0	347.4	350.1	346.1
77.5°	32.9	40.8	72.4	82.9	196.1	239.5	252.7	260.6	272.4	275.1	276.4
80°	27.6	35.6	56.6	64.4	142.1	176.4	185.6	192.1	202.7	202.7	205.3
82.5°	21.0	27.6	40.8	46.0	96.1	121.1	129.0	133.0	139.5	139.5	139.5
85°	13.1	17.1	26.3	30.3	57.9	73.7	79.0	80.3	85.6	86.9	86.9
87.5°	6.6	9.2	17.1	18.4	30.3	38.1	38.1	40.8	40.8	39.4	38.1
90°	6.2	11.2	16.1	17.4	27.4	40.6	47.2	41.9	31.5	23.6	23.6
92.5°	24.8	67.0	109.4	119.9	168.5	233.4	265.8	233.0	167.3	118.0	113.3
95°	59.7	137.0	214.2	233.6	414.7	656.4	777.2	693.5	526.2	400.7	386.4
97.5°	103.1	171.3	239.5	256.6	558.7	961.5	1162.9	1110.0	1004.3	925.0	897.9
100°	136.7	198.5	260.4	275.8	611.0	1058.1	1281.6	1285.4	1293.2	1299.0	1266.7
102.5°	165.2	223.0	280.7	295.1	635.1	1088.4	1315.1	1382.4	1517.2	1618.3	1590.7
105°	213.7	262.6	311.4	323.7	652.9	1091.8	1311.3	1462.3	1764.4	1991.0	1976.2
107.5°	263.4	309.0	354.6	365.9	656.3	1043.3	1236.8	1447.5	1868.8	2184.8	2188.4
110°	296.9	338.0	379.3	389.5	651.3	1000.2	1174.7	1410.2	1881.2	2234.5	2250.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	329.9	369.1	408.4	418.1	651.5	962.6	1118.2	1359.2	1841.3	2202.9	2226.6
115°	379.6	415.7	451.9	460.9	657.5	919.5	1050.5	1282.6	1747.1	2095.4	2128.4
117.5°	428.7	461.5	494.4	502.6	669.7	892.5	1003.9	1213.4	1632.5	1946.9	1983.4
120°	457.2	488.1	519.0	526.8	679.6	883.4	985.2	1176.7	1559.6	1846.9	1882.3
122.5°	485.2	516.3	547.6	555.4	693.9	878.7	971.0	1143.4	1488.2	1746.9	1781.8
125°	528.1	556.5	585.0	592.0	713.1	874.7	955.5	1101.9	1394.8	1614.5	1646.8
127.5°	562.8	591.5	620.2	627.4	732.4	872.4	942.4	1068.2	1319.7	1508.3	1535.5
130°	581.5	612.3	643.2	651.0	746.5	873.8	937.4	1049.4	1273.3	1441.2	1466.3
132.5°	600.7	631.7	662.5	670.3	757.9	874.7	933.1	1033.3	1233.7	1384.0	1406.6
135°	629.3	657.5	685.5	692.6	770.3	873.8	925.6	1009.5	1177.4	1303.3	1322.7
137.5°	658.5	686.3	714.2	721.2	788.9	879.3	924.4	995.3	1137.2	1243.7	1259.5
140°	682.8	708.5	734.2	740.5	800.4	880.2	920.0	981.3	1103.9	1195.8	1210.6
142.5°	701.4	725.1	748.8	754.8	809.8	883.3	920.0	973.9	1081.6	1162.3	1175.1
145°	730.0	750.7	771.3	776.5	822.3	883.4	913.8	957.9	1045.9	1111.9	1121.6
147.5°	758.5	778.7	798.8	803.9	840.5	889.4	913.8	948.5	1017.7	1069.7	1077.7
150°	777.2	795.4	813.5	818.1	850.0	892.5	913.8	943.1	1001.6	1045.5	1052.0
152.5°	796.4	810.2	824.0	827.5	856.3	894.6	913.8	938.8	988.8	1026.3	1031.2
155°	825.0	835.2	845.4	848.0	869.9	899.2	913.8	933.8	973.5	1003.3	1006.6
157.5°	846.1	856.1	865.9	868.4	883.6	903.8	913.8	929.3	960.1	983.4	985.6
160°	860.3	868.1	875.9	877.8	889.8	905.9	913.8	927.1	953.6	973.4	974.7
162.5°	874.7	880.5	886.2	887.7	896.4	908.1	913.8	925.0	947.4	964.1	965.3
165°	890.2	895.4	900.7	902.0	906.0	911.2	913.8	921.8	937.8	949.8	951.1
167.5°	904.5	907.0	909.4	910.0	913.3	917.8	920.0	925.3	935.7	943.6	944.2
170°	913.8	916.3	918.8	919.4	919.6	919.9	920.0	925.3	935.7	943.6	943.6
172.5°	918.8	919.3	919.9	920.0	920.0	920.0	920.0	924.2	932.5	938.6	938.1
175°	925.6	925.6	925.6	925.6	923.7	921.2	920.0	922.6	927.9	931.9	931.9
177.5°	925.6	925.6	925.6	925.6	924.2	922.3	921.3	923.4	927.5	930.6	930.0
180°	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	409.3	409.3
2.5°	436.9	434.3
5°	561.9	564.6
7.5°	756.8	755.4
10°	941.0	952.8
12.5°	1075.2	1077.9
15°	1156.9	1162.0
17.5°	1188.4	1189.7
20°	1189.7	1187.0
22.5°	1175.3	1172.6
25°	1158.1	1156.9
27.5°	1142.3	1143.6
30°	1135.7	1139.7
32.5°	1135.7	1142.3
35°	1138.4	1145.0
37.5°	1137.0	1145.0
40°	1131.9	1141.0
42.5°	1117.3	1123.9
45°	1095.0	1102.9
47.5°	1066.0	1071.3
50°	1029.2	1034.4
52.5°	983.1	984.4
55°	927.8	933.1
57.5°	868.6	869.9
60°	802.8	806.8
62.5°	733.1	733.1
65°	659.4	661.9
67.5°	583.1	589.6
70°	505.4	506.7
72.5°	429.1	429.1
75°	350.1	351.4
77.5°	275.1	275.1
80°	204.0	205.3
82.5°	140.8	143.4
85°	88.1	88.1
87.5°	40.8	36.9
90°	23.6	23.6
92.5°	94.5	75.8
95°	329.6	272.7
97.5°	789.7	681.5
100°	1137.8	1008.8
102.5°	1480.3	1369.8
105°	1916.8	1857.4
107.5°	2202.8	2217.1
110°	2311.8	2373.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2321.6	2416.5
115°	2260.0	2391.7
117.5°	2129.4	2275.5
120°	2024.3	2166.2
122.5°	1921.9	2061.8
125°	1775.7	1904.7
127.5°	1644.3	1753.1
130°	1566.8	1667.3
132.5°	1496.5	1586.5
135°	1400.3	1477.9
137.5°	1323.1	1386.5
140°	1270.0	1329.4
142.5°	1226.2	1277.2
145°	1160.3	1199.0
147.5°	1109.7	1141.8
150°	1078.0	1103.9
152.5°	1050.8	1070.3
155°	1019.5	1032.5
157.5°	994.7	1003.9
160°	980.0	985.2
162.5°	970.3	975.3
165°	956.4	961.6
167.5°	946.4	948.6
170°	943.6	943.6
172.5°	936.2	934.3
175°	931.9	931.9
177.5°	927.8	925.6
180°	925.6	925.6



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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	4.02	4.78	5.09	5.86	7.33	17.16	17.92	18.23	19.00	20.47
	3H	4.72	5.40	5.80	6.49	7.98	18.98	19.66	20.06	20.75	22.24
	4H	5.01	5.66	6.11	6.75	8.25	19.61	20.25	20.70	21.34	22.84
	6H	5.26	5.86	6.36	6.95	8.46	20.02	20.62	21.12	21.71	23.22
	8H	5.32	5.89	6.43	7.00	8.50	20.13	20.70	21.24	21.81	23.31
	12H	5.34	5.88	6.45	6.98	8.51	20.19	20.73	21.30	21.83	23.36
4H	2H	11.20	11.85	12.30	12.94	14.43	17.42	18.07	18.52	19.16	20.66
	3H	12.76	13.30	13.87	14.42	15.93	19.44	19.99	20.55	21.10	22.61
	4H	12.85	13.35	13.96	14.45	15.98	20.20	20.69	21.31	21.80	23.33
	6H	12.85	13.28	13.97	14.41	15.93	20.72	21.15	21.84	22.27	23.80
	8H	12.83	13.23	13.95	14.35	15.89	20.87	21.27	21.99	22.39	23.93
	12H	12.78	13.14	13.92	14.28	15.82	20.95	21.31	22.09	22.44	23.99
8H	4H	14.28	14.68	15.39	15.80	17.34	20.25	20.65	21.37	21.77	23.31
	6H	14.51	14.84	15.65	16.01	17.54	20.86	21.19	22.00	22.35	23.89
	8H	14.53	14.82	15.68	15.96	17.52	21.07	21.36	22.22	22.50	24.06
	12H	14.49	14.75	15.64	15.89	17.48	21.20	21.46	22.35	22.60	24.19
12H	4H	14.41	14.77	15.55	15.91	17.45	20.20	20.56	21.33	21.69	23.24
	6H	14.77	15.06	15.91	16.20	17.76	20.84	21.13	21.99	22.27	23.83
	8H	14.83	15.09	15.98	16.22	17.82	21.06	21.31	22.21	22.45	24.05