

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: P937588

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

**Test Information**

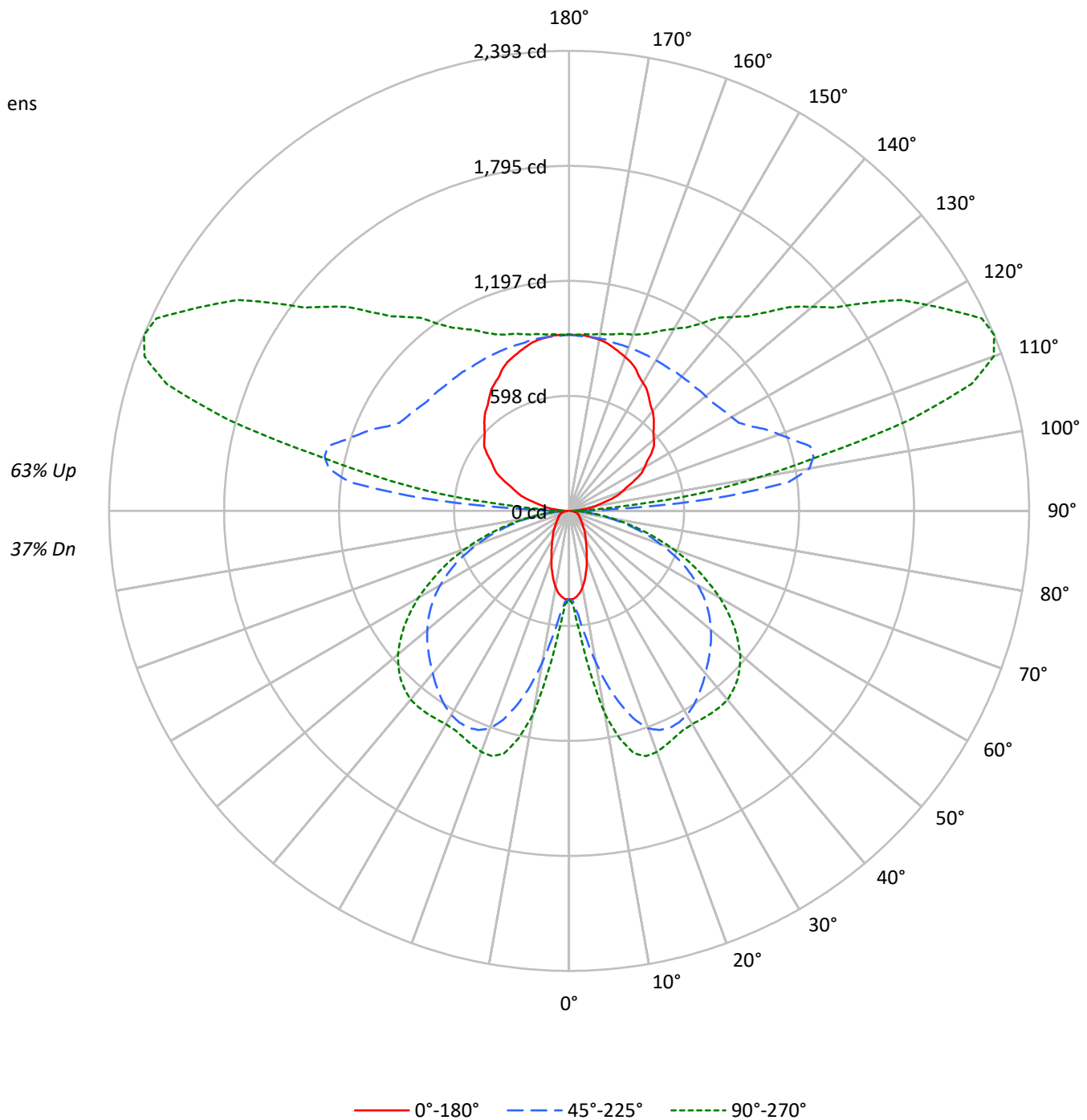
Test Method: LM-79-2019  
Report Number: P937588  
REPORT IS A COMBINATION OF REPORTS P933574 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-B2750-1D-UNV-STD-W-6-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9504.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 73.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37		37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31		31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25		25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21		21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17		17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15		15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13		13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11		11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10		10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9		9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8		8

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2846	2846	2846
5°	2779	3288	3825
10°	2520	4792	6341
15°	2140	6259	7657
20°	1742	7251	7804
25°	1453	7586	7645
30°	1224	7633	7631
35°	1082	7504	7828
40°	942	7336	8032
45°	853	7213	8063
50°	781	7102	7930
55°	748	6941	7578
60°	765	6633	7022
65°	794	6166	6260
70°	844	5374	5288
75°	932	4378	4127
80°	1012	3032	2781
85°	882	1605	1423

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8063 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.5	0.6
10°-20°	263.7	2.8
20°-30°	461.3	4.9
30°-40°	593.8	6.2
40°-50°	663.2	7.0
50°-60°	635.2	6.7
60°-70°	503.4	5.3
70°-80°	296.0	3.1
80°-90°	85.7	0.9
90°-100°	446.8	4.7
100°-110°	1174.7	12.4
110°-120°	1218.0	12.8
120°-130°	977.0	10.3
130°-140°	766.6	8.1
140°-150°	588.4	6.2
150°-160°	423.7	4.5
160°-170°	259.3	2.7
170°-180°	87.6	0.9
0°-30°	784.5	8.3
0°-40°	1378.3	14.5
0°-60°	2676.8	28.2
0°-90°	3561.9	37.5
90°-120°	2839.5	29.9
90°-150°	5171.5	54.4
90°-180°	5942.0	62.5
0°-180°	9504.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	448	481	541	612	634	41
15°	336	620	1044	1266	1306	93
25°	214	702	1244	1299	1300	99
35°	145	672	1172	1238	1287	90
45°	99	535	1035	1186	1240	77
55°	71	340	878	1020	1049	65
65°	56	180	652	734	744	56
75°	41	111	358	393	395	43
85°	15	34	89	98	99	16
90°	6	17	47	23	23	6
95°	59	231	770	397	270	66
105°	212	320	1299	1972	1839	224
115°	376	456	1040	2075	2368	371
125°	523	586	946	1599	1886	464
135°	623	686	917	1291	1464	482
145°	723	769	905	1101	1187	453
155°	817	840	905	994	1022	375
165°	882	893	905	941	952	249
175°	917	917	911	923	923	87
180°	917	917	917	917	917	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	460.0	460.0	460.0	460.0	460.0	460.0	460.0	460.0	460.0	460.0	460.0
2.5°	460.0	460.0	462.9	464.4	467.4	468.8	471.8	474.8	483.6	485.1	488.1
5°	448.1	454.1	473.3	480.7	501.4	529.5	541.3	560.5	600.5	612.3	619.7
7.5°	430.4	443.7	491.0	502.9	554.6	628.6	659.6	701.0	764.6	795.7	820.8
10°	402.3	430.4	514.7	542.8	627.1	739.5	797.2	854.9	951.0	993.9	1010.2
12.5°	371.2	417.1	539.8	578.3	699.6	863.7	933.2	996.8	1106.3	1164.1	1172.9
15°	335.7	397.9	563.5	619.7	776.5	967.3	1044.2	1122.7	1224.7	1266.1	1276.5
17.5°	304.7	383.1	585.7	644.8	835.6	1060.4	1138.9	1204.0	1286.8	1314.9	1322.3
20°	266.2	359.4	600.5	677.4	897.8	1128.6	1204.0	1254.3	1310.5	1328.2	1331.2
22.5°	238.1	334.3	609.3	689.2	939.2	1170.0	1233.6	1273.5	1312.0	1317.9	1319.4
25°	214.5	306.2	607.9	702.5	974.7	1195.1	1243.9	1273.5	1295.7	1298.7	1298.7
27.5°	192.3	275.1	602.0	705.5	1001.3	1201.0	1239.5	1260.2	1270.6	1276.5	1276.5
30°	173.0	245.5	587.2	699.6	1013.1	1195.1	1226.2	1236.5	1246.9	1255.8	1260.2
32.5°	158.3	217.4	565.0	687.7	1014.6	1180.3	1202.5	1208.4	1223.2	1243.9	1251.3
35°	144.9	189.3	539.8	671.5	1005.7	1156.7	1171.5	1177.4	1207.0	1238.0	1248.4
37.5°	131.6	168.6	507.3	643.4	992.4	1128.6	1138.9	1149.3	1195.1	1232.1	1243.9
40°	118.3	150.9	468.8	612.3	971.7	1094.5	1103.3	1119.6	1180.3	1223.2	1235.1
42.5°	108.0	136.1	427.4	579.8	945.1	1056.0	1069.3	1093.0	1162.6	1208.4	1221.8
45°	99.1	121.3	383.1	535.4	911.1	1016.1	1035.3	1067.8	1141.9	1186.3	1198.1
47.5°	90.2	110.9	337.2	489.5	874.1	976.1	1001.3	1038.3	1113.7	1156.7	1167.0
50°	82.8	100.6	291.4	440.7	834.2	933.2	962.8	1001.3	1078.2	1118.1	1131.5
52.5°	76.9	91.7	248.5	391.9	788.3	888.9	922.9	962.8	1035.3	1073.8	1082.6
55°	71.0	84.3	211.5	340.2	741.0	841.6	878.5	917.0	988.0	1020.5	1026.4
57.5°	68.0	78.4	180.4	291.4	690.7	788.3	829.7	865.2	931.8	956.9	962.8
60°	63.6	74.0	156.8	250.0	636.0	738.0	773.5	809.0	865.2	885.9	890.4
62.5°	59.2	71.0	139.0	210.0	579.8	678.9	714.4	746.9	794.2	809.0	814.9
65°	56.2	68.0	125.7	180.4	522.1	616.7	652.2	680.3	718.8	733.6	736.5
67.5°	53.2	65.1	115.4	155.3	464.4	554.6	581.2	607.9	637.4	652.2	653.7
70°	48.8	62.1	106.5	137.5	405.2	483.6	505.8	533.9	557.6	565.0	569.4
72.5°	45.8	57.7	100.6	124.2	344.6	415.6	436.3	452.6	473.3	480.7	480.7
75°	41.4	51.8	94.7	110.9	282.5	340.2	357.9	374.2	390.5	393.4	389.0
77.5°	37.0	45.8	81.3	93.2	220.4	269.2	284.0	292.8	306.2	309.1	310.6
80°	31.1	39.9	63.6	72.5	159.7	198.2	208.5	215.9	227.8	227.8	230.7
82.5°	23.7	31.1	45.8	51.8	108.0	136.1	144.9	149.4	156.8	156.8	156.8
85°	14.8	19.2	29.6	34.0	65.1	82.8	88.7	90.2	96.1	97.6	97.6
87.5°	7.4	10.4	19.2	20.7	34.0	42.9	42.9	45.8	45.8	44.4	42.9
90°	6.1	11.0	16.0	17.3	27.1	40.2	46.7	41.5	31.2	23.4	23.4
92.5°	24.6	66.5	108.3	118.7	166.9	231.1	263.3	230.7	165.6	116.8	112.2
95°	59.1	135.6	212.2	231.3	410.8	650.0	769.6	686.7	521.0	396.8	382.7
97.5°	102.1	169.7	237.2	254.1	553.2	952.2	1151.6	1099.3	994.6	916.0	889.2
100°	135.4	196.6	257.8	273.1	605.1	1047.7	1269.1	1272.9	1280.6	1286.3	1254.4
102.5°	163.7	220.9	278.0	292.3	629.0	1077.9	1302.3	1369.1	1502.5	1602.5	1575.2
105°	211.6	260.0	308.4	320.5	646.6	1081.3	1298.7	1448.2	1747.3	1971.6	1956.9
107.5°	260.8	306.0	351.1	362.4	649.9	1033.1	1224.8	1433.4	1850.6	2163.6	2167.1
110°	294.0	334.7	375.6	385.7	644.9	990.5	1163.3	1396.5	1862.9	2212.8	2228.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	326.7	365.5	404.4	414.0	645.1	953.3	1107.3	1346.0	1823.4	2181.4	2204.9
115°	375.9	411.7	447.4	456.4	651.1	910.5	1040.2	1270.2	1730.1	2075.0	2107.7
117.5°	424.5	457.0	489.5	497.6	663.1	883.8	994.1	1201.6	1616.6	1927.9	1964.1
120°	452.8	483.4	514.0	521.7	673.0	874.8	975.6	1165.3	1544.5	1828.9	1864.0
122.5°	480.5	511.3	542.3	550.0	687.1	870.0	961.5	1132.3	1473.8	1729.8	1764.5
125°	522.9	551.1	579.3	586.3	706.3	866.2	946.2	1091.2	1381.3	1598.9	1630.8
127.5°	557.4	585.8	614.3	621.4	725.3	863.9	933.2	1057.8	1306.8	1493.7	1520.6
130°	575.8	606.5	637.1	644.7	739.3	865.3	928.3	1039.1	1260.9	1427.2	1452.1
132.5°	594.9	625.5	656.1	663.8	750.5	866.2	924.0	1023.3	1221.8	1370.6	1392.9
135°	623.2	651.1	679.0	686.0	762.9	865.3	916.6	999.7	1165.9	1290.7	1309.9
137.5°	652.0	679.6	707.4	714.3	781.3	870.7	915.4	985.7	1126.2	1231.6	1247.3
140°	676.1	701.5	727.0	733.3	792.5	871.5	911.1	971.8	1093.2	1184.2	1198.9
142.5°	694.5	718.1	741.6	747.5	802.0	874.7	911.1	964.4	1071.0	1151.0	1163.6
145°	722.8	743.3	763.9	769.0	814.3	874.8	905.0	948.5	1035.8	1101.2	1110.7
147.5°	751.1	771.1	791.0	796.0	832.3	880.7	905.0	939.3	1007.9	1059.4	1067.2
150°	769.6	787.6	805.7	810.2	841.7	883.9	905.0	933.9	991.8	1035.3	1041.7
152.5°	788.7	802.4	816.0	819.5	848.0	885.9	905.0	929.7	979.2	1016.3	1021.1
155°	817.0	827.1	837.1	839.7	861.5	890.5	905.0	924.7	964.0	993.5	996.7
157.5°	837.9	847.8	857.5	860.0	875.0	895.0	905.0	920.2	950.9	973.9	976.1
160°	852.0	859.7	867.4	869.3	881.2	897.1	905.0	918.1	944.3	964.0	965.3
162.5°	866.2	871.9	877.6	879.1	887.7	899.2	905.0	916.0	938.2	954.7	955.9
165°	881.6	886.7	891.9	893.2	897.2	902.4	905.0	912.8	928.7	940.6	941.9
167.5°	895.7	898.1	900.6	901.2	904.5	908.9	911.1	916.3	926.6	934.4	935.0
170°	905.0	907.4	909.9	910.5	910.7	911.0	911.1	916.3	926.6	934.4	934.4
172.5°	909.9	910.4	911.0	911.1	911.1	911.1	911.1	915.2	923.4	929.5	929.0
175°	916.6	916.6	916.6	916.6	914.7	912.2	911.1	913.6	918.9	922.8	922.8
177.5°	916.6	916.6	916.6	916.6	915.2	913.3	912.3	914.4	918.5	921.5	920.9
180°	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	460.0	460.0
2.5°	491.0	488.1
5°	631.5	634.5
7.5°	850.4	848.9
10°	1057.5	1070.8
12.5°	1208.4	1211.4
15°	1300.1	1306.1
17.5°	1335.6	1337.1
20°	1337.1	1334.2
22.5°	1320.8	1317.9
25°	1301.6	1300.1
27.5°	1283.9	1285.3
30°	1276.5	1280.9
32.5°	1276.5	1283.9
35°	1279.4	1286.8
37.5°	1278.0	1286.8
40°	1272.0	1282.4
42.5°	1255.8	1263.2
45°	1230.6	1239.5
47.5°	1198.1	1204.0
50°	1156.7	1162.6
52.5°	1104.8	1106.3
55°	1042.7	1048.6
57.5°	976.1	977.6
60°	902.2	906.6
62.5°	823.8	823.8
65°	741.0	743.9
67.5°	655.2	662.6
70°	567.9	569.4
72.5°	482.2	482.2
75°	393.4	394.9
77.5°	309.1	309.1
80°	229.2	230.7
82.5°	158.3	161.2
85°	99.1	99.1
87.5°	45.8	41.4
90°	23.4	23.4
92.5°	93.6	75.0
95°	326.4	270.1
97.5°	782.0	674.8
100°	1126.7	999.0
102.5°	1465.8	1356.4
105°	1898.1	1839.4
107.5°	2181.4	2195.6
110°	2289.4	2350.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2299.0	2393.0
115°	2238.0	2368.5
117.5°	2108.8	2253.4
120°	2004.6	2145.1
122.5°	1903.2	2041.8
125°	1758.4	1886.1
127.5°	1628.4	1736.1
130°	1551.7	1651.2
132.5°	1482.1	1571.2
135°	1386.7	1463.5
137.5°	1310.2	1373.1
140°	1257.7	1316.5
142.5°	1214.3	1264.8
145°	1149.1	1187.3
147.5°	1099.0	1130.7
150°	1067.4	1093.2
152.5°	1040.5	1060.0
155°	1009.6	1022.4
157.5°	985.1	994.1
160°	970.5	975.6
162.5°	960.9	965.8
165°	947.2	952.3
167.5°	937.2	939.4
170°	934.4	934.4
172.5°	927.1	925.3
175°	922.8	922.8
177.5°	918.8	916.6
180°	916.6	916.6



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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	3.37	4.15	4.42	5.21	6.65	16.53	17.32	17.58	18.38	19.81
	3H	4.07	4.77	5.13	5.84	7.29	18.36	19.06	19.42	20.13	21.59
	4H	4.36	5.03	5.43	6.10	7.56	19.00	19.67	20.07	20.74	22.20
	6H	4.61	5.22	5.69	6.30	7.77	19.42	20.04	20.50	21.11	22.59
	8H	4.67	5.26	5.76	6.35	7.82	19.54	20.12	20.62	21.21	22.68
	12H	4.69	5.25	5.78	6.33	7.82	19.60	20.16	20.69	21.24	22.73
4H	2H	10.56	11.23	11.64	12.30	13.76	16.80	17.47	17.88	18.54	20.00
	3H	12.12	12.68	13.21	13.78	15.26	18.83	19.39	19.92	20.49	21.96
	4H	12.22	12.73	13.31	13.82	15.31	19.59	20.10	20.68	21.19	22.69
	6H	12.22	12.66	13.32	13.78	15.26	20.12	20.56	21.22	21.67	23.16
	8H	12.20	12.61	13.30	13.71	15.22	20.28	20.69	21.38	21.79	23.30
	12H	12.15	12.52	13.27	13.64	15.15	20.36	20.74	21.48	21.86	23.37
8H	4H	13.65	14.06	14.75	15.17	16.67	19.64	20.06	20.74	21.16	22.67
	6H	13.89	14.23	15.01	15.38	16.88	20.27	20.61	21.39	21.75	23.25
	8H	13.91	14.21	15.04	15.33	16.85	20.48	20.78	21.61	21.91	23.43
	12H	13.87	14.14	15.01	15.26	16.82	20.62	20.88	21.75	22.01	23.56
12H	4H	13.79	14.16	14.91	15.28	16.79	19.59	19.97	20.71	21.08	22.59
	6H	14.15	14.45	15.28	15.57	17.09	20.25	20.55	21.38	21.67	23.20
	8H	14.21	14.48	15.35	15.60	17.16	20.47	20.74	21.61	21.86	23.42