

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: P938535

Luminaire Tested: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-4-5000K

Issue Date: 12/17/2024

**Test Information**

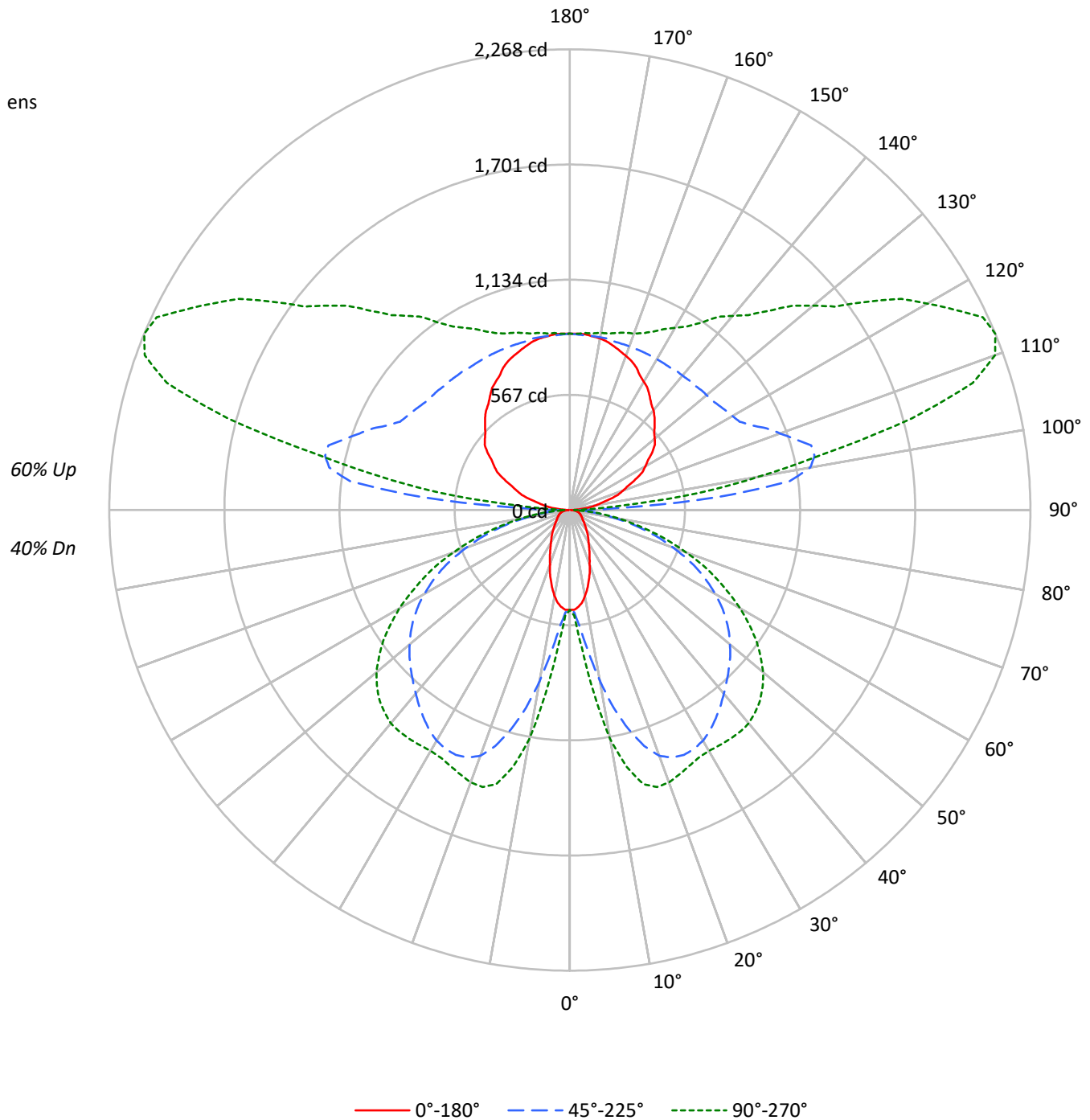
Test Method: LM-79-2019  
Report Number: P938535  
REPORT IS A COMBINATION OF REPORTS P933632 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-4-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9439.7 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: General Diffuse  
  
Input Watts (W): 83.2  
Input Voltage (V): NR  
Input Current (Ain): 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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	8

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

	0°	45°	90°
0°	4564	4564	4564
5°	4454	5272	6135
10°	4036	7679	10171
15°	3426	10024	12281
20°	2786	11609	12516
25°	2322	12139	12263
30°	1955	12205	12239
35°	1726	11993	12556
40°	1502	11721	12882
45°	1357	11518	12933
50°	1242	11333	12720
55°	1186	11066	12156
60°	1210	10566	11266
65°	1252	9812	10041
70°	1325	8539	8484
75°	1453	6946	6620
80°	1554	4799	4462
85°	1308	2533	2284

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12933 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.6	0.7
10°-20°	282.0	3.0
20°-30°	493.3	5.2
30°-40°	635.0	6.7
40°-50°	709.2	7.5
50°-60°	679.3	7.2
60°-70°	538.3	5.7
70°-80°	316.6	3.4
80°-90°	91.3	1.0
90°-100°	423.4	4.5
100°-110°	1113.2	11.8
110°-120°	1154.3	12.2
120°-130°	925.9	9.8
130°-140°	726.5	7.7
140°-150°	557.6	5.9
150°-160°	401.6	4.3
160°-170°	245.7	2.6
170°-180°	83.0	0.9
0°-30°	838.9	8.9
0°-40°	1473.9	15.6
0°-60°	2862.4	30.3
0°-90°	3808.5	40.3
90°-120°	2690.9	28.5
90°-150°	4900.8	51.9
90°-180°	5631.0	59.7
0°-180°	9439.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	492	492	492	492	492	
5°	479	514	579	655	678	44
15°	359	663	1117	1354	1396	100
25°	229	751	1330	1389	1390	106
35°	155	718	1253	1324	1376	97
45°	106	572	1107	1268	1325	82
55°	76	364	940	1091	1121	69
65°	60	193	698	784	796	60
75°	44	119	383	421	422	46
85°	16	36	95	104	106	17
90°	6	16	44	22	22	6
95°	56	219	729	376	256	62
105°	201	304	1231	1868	1743	213
115°	356	433	986	1966	2244	352
125°	496	556	897	1515	1787	440
135°	590	650	869	1223	1387	457
145°	685	729	858	1044	1125	429
155°	774	796	858	942	969	356
165°	835	846	858	891	902	236
175°	869	869	863	874	874	82
180°	869	869	869	869	869	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	491.8	491.8	491.8	491.8	491.8	491.8	491.8	491.8	491.8	491.8	491.8
2.5°	491.8	491.8	495.0	496.6	499.8	501.4	504.6	507.7	517.2	518.8	521.9
5°	479.2	485.6	506.1	514.0	536.1	566.2	578.9	599.4	642.1	654.8	662.7
7.5°	460.2	474.5	525.1	537.7	593.1	672.1	705.4	749.7	817.7	850.9	877.8
10°	430.2	460.2	550.4	580.5	670.6	790.8	852.5	914.1	1017.0	1062.9	1080.2
12.5°	397.0	446.0	577.3	618.4	748.1	923.7	998.0	1066.0	1183.1	1244.7	1254.2
15°	359.0	425.5	602.6	662.7	830.3	1034.3	1116.6	1200.4	1309.6	1353.8	1365.0
17.5°	325.8	409.7	626.3	689.6	893.6	1134.0	1217.8	1287.5	1376.0	1406.1	1413.9
20°	284.7	384.4	642.1	724.4	960.0	1206.8	1287.5	1341.2	1401.3	1420.3	1423.5
22.5°	254.6	357.4	651.6	737.0	1004.3	1251.0	1319.1	1361.8	1402.9	1409.3	1410.8
25°	229.4	327.4	650.1	751.2	1042.3	1277.9	1330.2	1361.8	1385.5	1388.7	1388.7
27.5°	205.6	294.2	643.7	754.4	1070.7	1284.3	1325.4	1347.6	1358.6	1365.0	1365.0
30°	185.1	262.6	627.9	748.1	1083.4	1277.9	1311.1	1322.2	1333.3	1342.8	1347.6
32.5°	169.3	232.5	604.2	735.4	1085.0	1262.1	1285.9	1292.1	1308.0	1330.2	1338.0
35°	155.0	202.5	577.3	718.0	1075.5	1236.8	1252.6	1259.0	1290.5	1323.8	1334.9
37.5°	140.8	180.3	542.5	688.0	1061.3	1206.8	1217.8	1229.0	1277.9	1317.5	1330.2
40°	126.6	161.3	501.4	654.8	1039.1	1170.3	1179.9	1197.3	1262.1	1308.0	1320.6
42.5°	115.4	145.5	457.1	620.0	1010.6	1129.3	1143.5	1168.8	1243.2	1292.1	1306.4
45°	106.0	129.7	409.7	572.5	974.2	1086.6	1107.2	1141.9	1221.0	1268.5	1281.1
47.5°	96.5	118.6	360.6	523.5	934.7	1043.9	1070.7	1110.3	1190.9	1236.8	1247.9
50°	88.6	107.6	311.5	471.3	892.0	998.0	1029.7	1070.7	1153.0	1195.7	1210.0
52.5°	82.3	98.1	265.7	419.1	843.0	950.5	987.0	1029.7	1107.2	1148.3	1157.7
55°	75.9	90.1	226.2	363.8	792.4	899.9	939.5	980.6	1056.5	1091.3	1097.6
57.5°	72.7	83.8	192.9	311.5	738.6	843.0	887.3	925.3	996.4	1023.3	1029.7
60°	68.0	79.1	167.7	267.3	680.1	789.3	827.2	865.2	925.3	947.4	952.1
62.5°	63.3	75.9	148.7	224.6	620.0	726.0	763.9	798.7	849.4	865.2	871.4
65°	60.1	72.7	134.4	192.9	558.3	659.5	697.5	727.6	768.7	784.5	787.7
67.5°	56.9	69.6	123.4	166.1	496.6	593.1	621.6	650.1	681.7	697.5	699.1
70°	52.2	66.5	113.8	147.1	433.3	517.2	540.9	570.9	596.2	604.2	609.0
72.5°	49.1	61.7	107.6	132.8	368.6	444.5	466.6	484.0	506.1	514.0	514.0
75°	44.3	55.3	101.2	118.6	302.1	363.8	382.8	400.1	417.5	420.7	415.9
77.5°	39.5	49.1	87.0	99.6	235.6	287.9	303.7	313.1	327.4	330.5	332.1
80°	33.2	42.7	68.0	77.5	170.8	211.9	223.0	230.9	243.6	243.6	246.8
82.5°	25.3	33.2	49.1	55.3	115.4	145.5	155.0	159.7	167.7	167.7	167.7
85°	15.8	20.6	31.6	36.4	69.6	88.6	94.9	96.5	102.8	104.4	104.4
87.5°	7.9	11.0	20.6	22.2	36.4	45.9	45.9	49.1	49.1	47.5	45.9
90°	5.8	10.5	15.1	16.4	25.7	38.1	44.3	39.4	29.5	22.2	22.2
92.5°	23.3	62.9	102.6	112.5	158.2	219.0	249.5	218.6	157.0	110.8	106.4
95°	56.0	128.5	201.1	219.2	389.2	616.0	729.4	650.8	493.8	376.0	362.7
97.5°	96.7	160.8	224.8	240.8	524.3	902.4	1091.4	1041.7	942.5	868.1	842.6
100°	128.2	186.3	244.3	258.8	573.4	992.9	1202.7	1206.3	1213.6	1219.0	1188.8
102.5°	155.1	209.3	263.4	277.0	596.1	1021.4	1234.2	1297.4	1423.8	1518.7	1492.8
105°	200.6	246.5	292.3	303.8	612.7	1024.6	1230.6	1372.3	1655.8	1868.5	1854.6
107.5°	247.2	289.9	332.8	343.4	615.9	979.1	1160.7	1358.4	1753.8	2050.4	2053.7
110°	278.6	317.2	355.9	365.6	611.2	938.6	1102.4	1323.5	1765.5	2097.0	2111.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	309.6	346.4	383.2	392.4	611.4	903.4	1049.4	1275.6	1728.0	2067.3	2089.5
115°	356.2	390.1	424.1	432.6	617.0	862.9	985.8	1203.7	1639.6	1966.4	1997.4
117.5°	402.3	433.1	464.0	471.7	628.5	837.6	942.1	1138.8	1532.1	1827.1	1861.4
120°	429.0	458.1	487.1	494.4	637.7	829.0	924.6	1104.3	1463.7	1733.2	1766.5
122.5°	455.3	484.6	513.9	521.2	651.2	824.6	911.2	1073.0	1396.6	1639.4	1672.2
125°	495.6	522.2	549.0	555.6	669.2	820.9	896.7	1034.1	1309.0	1515.2	1545.4
127.5°	528.2	555.1	582.0	588.8	687.3	818.7	884.4	1002.5	1238.5	1415.5	1441.0
130°	545.7	574.7	603.6	610.9	700.6	820.0	879.7	984.8	1194.9	1352.5	1376.1
132.5°	563.7	592.8	621.8	629.1	711.2	820.9	875.6	969.7	1157.8	1298.9	1320.0
135°	590.5	617.0	643.4	650.0	722.9	820.0	868.6	947.4	1104.9	1223.1	1241.3
137.5°	617.9	644.1	670.3	676.8	740.4	825.2	867.5	934.1	1067.2	1167.2	1182.0
140°	640.7	664.9	689.0	695.0	751.1	826.0	863.4	920.9	1035.9	1122.2	1136.1
142.5°	658.2	680.5	702.7	708.3	760.0	828.9	863.4	914.0	1015.0	1090.8	1102.8
145°	685.0	704.5	723.8	728.7	771.7	829.0	857.6	898.9	981.5	1043.5	1052.6
147.5°	711.8	730.8	749.6	754.4	788.8	834.7	857.6	890.1	955.1	1003.9	1011.4
150°	729.4	746.5	763.5	767.8	797.7	837.6	857.6	885.1	939.9	981.2	987.2
152.5°	747.4	760.4	773.3	776.6	803.6	839.6	857.6	881.1	928.0	963.1	967.7
155°	774.2	783.8	793.4	795.8	816.4	843.9	857.6	876.3	913.6	941.5	944.6
157.5°	794.0	803.4	812.6	815.0	829.2	848.2	857.6	872.1	901.1	922.8	925.0
160°	807.4	814.7	822.0	823.8	835.1	850.1	857.6	870.0	894.9	913.5	914.7
162.5°	820.9	826.3	831.7	833.1	841.2	852.2	857.6	868.1	889.1	904.8	905.9
165°	835.4	840.3	845.3	846.5	850.2	855.2	857.6	865.1	880.1	891.3	892.6
167.5°	848.8	851.1	853.5	854.0	857.1	861.3	863.4	868.3	878.2	885.5	886.1
170°	857.6	859.9	862.3	862.8	863.0	863.3	863.4	868.3	878.2	885.5	885.5
172.5°	862.3	862.7	863.3	863.4	863.4	863.4	863.4	867.3	875.1	880.9	880.4
175°	868.6	868.6	868.6	868.6	866.8	864.5	863.4	865.8	870.8	874.5	874.5
177.5°	868.6	868.6	868.6	868.6	867.3	865.5	864.6	866.6	870.4	873.3	872.7
180°	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	491.8	491.8
2.5°	525.1	521.9
5°	675.3	678.5
7.5°	909.5	907.9
10°	1130.8	1145.1
12.5°	1292.1	1295.3
15°	1390.3	1396.5
17.5°	1428.2	1429.8
20°	1429.8	1426.6
22.5°	1412.3	1409.3
25°	1391.8	1390.3
27.5°	1372.8	1374.4
30°	1365.0	1369.7
32.5°	1365.0	1372.8
35°	1368.1	1376.0
37.5°	1366.5	1376.0
40°	1360.2	1371.2
42.5°	1342.8	1350.7
45°	1315.9	1325.4
47.5°	1281.1	1287.5
50°	1236.8	1243.2
52.5°	1181.5	1183.1
55°	1115.0	1121.4
57.5°	1043.9	1045.5
60°	964.8	969.6
62.5°	881.0	881.0
65°	792.4	795.5
67.5°	700.7	708.6
70°	607.4	609.0
72.5°	515.6	515.6
75°	420.7	422.3
77.5°	330.5	330.5
80°	245.2	246.8
82.5°	169.3	172.4
85°	106.0	106.0
87.5°	49.1	44.3
90°	22.2	22.2
92.5°	88.7	71.1
95°	309.3	255.9
97.5°	741.1	639.5
100°	1067.8	946.8
102.5°	1389.2	1285.5
105°	1798.8	1743.1
107.5°	2067.2	2080.7
110°	2169.5	2227.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2178.7	2267.8
115°	2120.9	2244.5
117.5°	1998.4	2135.4
120°	1899.7	2032.9
122.5°	1803.6	1934.9
125°	1666.4	1787.4
127.5°	1543.1	1645.2
130°	1470.4	1564.7
132.5°	1404.4	1488.9
135°	1314.1	1386.9
137.5°	1241.7	1301.2
140°	1191.8	1247.6
142.5°	1150.7	1198.6
145°	1088.9	1125.2
147.5°	1041.4	1071.5
150°	1011.6	1035.9
152.5°	986.1	1004.4
155°	956.8	968.9
157.5°	933.5	942.1
160°	919.7	924.6
162.5°	910.6	915.3
165°	897.5	902.5
167.5°	888.2	890.2
170°	885.5	885.5
172.5°	878.6	876.8
175°	874.5	874.5
177.5°	870.7	868.6
180°	868.6	868.6



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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	5.31	6.12	6.34	7.16	8.56	18.45	19.26	19.48	20.30	21.70
	3H	6.02	6.74	7.05	7.79	9.21	20.27	21.00	21.31	22.05	23.47
	4H	6.31	7.00	7.36	8.05	9.48	20.91	21.60	21.96	22.65	24.07
	6H	6.56	7.20	7.62	8.25	9.69	21.32	21.96	22.38	23.01	24.45
	8H	6.63	7.23	7.69	8.30	9.74	21.43	22.04	22.50	23.11	24.55
	12H	6.64	7.22	7.71	8.28	9.74	21.49	22.07	22.56	23.14	24.59
4H	2H	12.50	13.19	13.56	14.24	15.67	18.72	19.41	19.78	20.46	21.89
	3H	14.06	14.64	15.13	15.72	17.16	20.75	21.33	21.81	22.41	23.84
	4H	14.16	14.69	15.23	15.76	17.22	21.50	22.03	22.57	23.10	24.56
	6H	14.16	14.62	15.25	15.71	17.17	22.03	22.48	23.11	23.58	25.03
	8H	14.14	14.57	15.22	15.65	17.12	22.18	22.61	23.26	23.69	25.16
	12H	14.09	14.48	15.19	15.58	17.06	22.26	22.65	23.36	23.75	25.23
8H	4H	15.59	16.01	16.67	17.10	18.57	21.56	21.99	22.64	23.07	24.54
	6H	15.83	16.18	16.93	17.31	18.78	22.17	22.53	23.28	23.65	25.12
	8H	15.84	16.15	16.95	17.26	18.75	22.39	22.70	23.50	23.80	25.29
	12H	15.81	16.08	16.93	17.19	18.71	22.52	22.79	23.63	23.90	25.42
12H	4H	15.72	16.11	16.82	17.21	18.69	21.51	21.90	22.61	23.00	24.47
	6H	16.08	16.39	17.19	17.50	18.99	22.16	22.47	23.27	23.58	25.06
	8H	16.15	16.42	17.26	17.53	19.05	22.38	22.65	23.49	23.75	25.28