

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: P936217

Luminaire Tested: SQ4-FB-025U-050D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

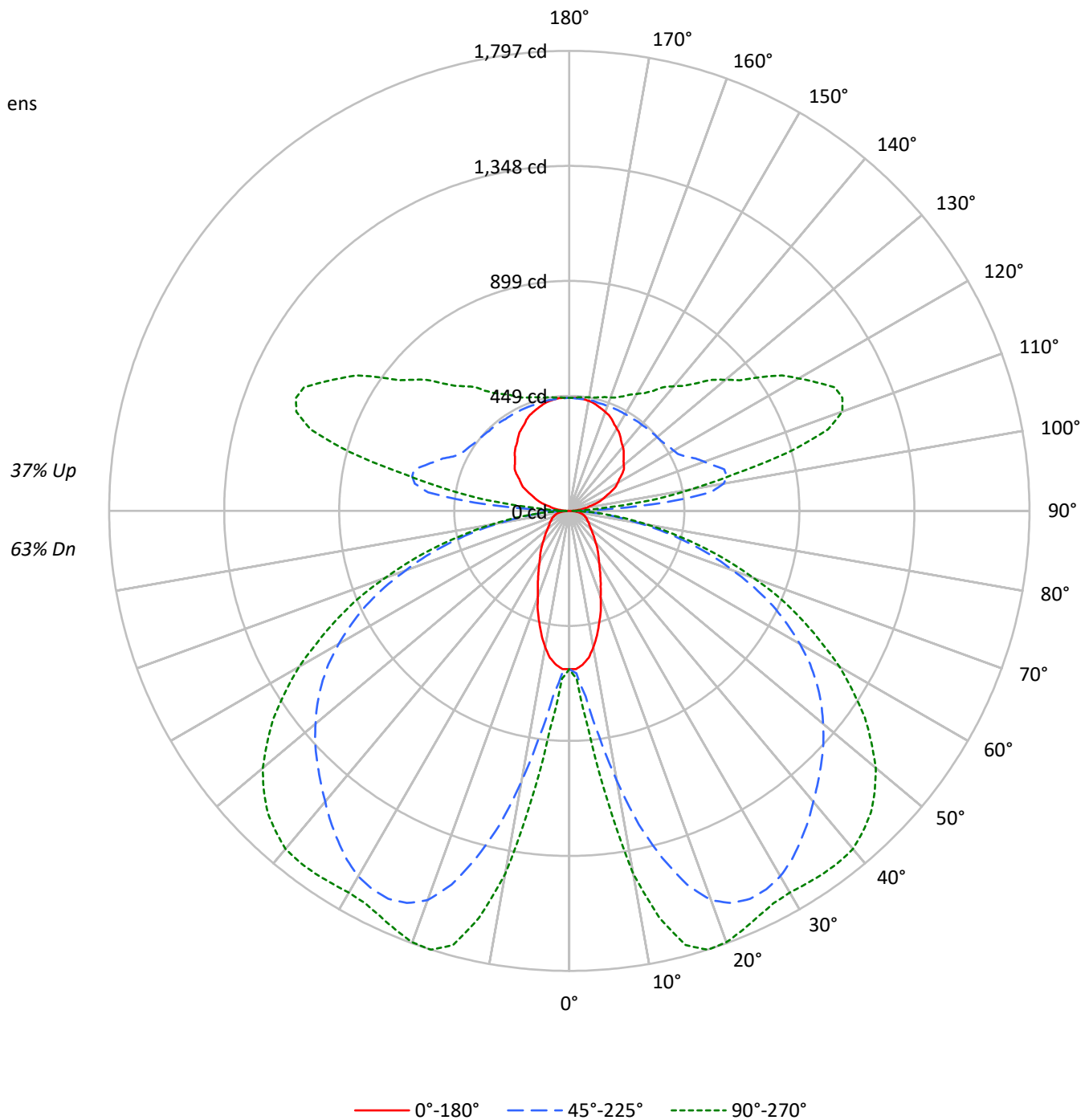
Test Method: LM-79-2019  
Report Number: P936217  
REPORT IS A COMBINATION OF REPORTS P933429 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-050D-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7652.1 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 66  
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	0
RCR																					
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	68	68	68	63
1	100	95	91	87	93	89	86	82	78	75	73	68	66	64	59	57	56	59	57	56	51
2	90	82	76	70	84	77	71	66	68	63	59	59	55	52	51	48	46	51	48	46	42
3	82	72	64	57	76	67	60	55	59	53	49	51	47	43	44	41	38	44	41	38	34
4	75	63	54	48	69	59	52	46	52	46	41	45	40	37	39	35	32	39	35	32	29
5	68	56	47	41	63	52	45	39	46	40	35	40	35	31	35	31	28	35	31	28	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	31	27	24	21
7	58	45	36	30	54	42	34	29	37	31	26	33	27	23	28	24	21	28	24	21	18
8	53	40	32	26	50	38	31	25	34	27	23	30	24	21	26	22	18	26	22	18	16
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	24	19	16	24	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15	22	18	15	13

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

	0°	45°	90°
0°	1912	1912	1912
5°	1869	2211	2570
10°	1696	3223	4261
15°	1442	4213	5146
20°	1174	4883	5244
25°	980	5111	5138
30°	827	5145	5128
35°	731	5060	5261
40°	638	4951	5398
45°	578	4871	5419
50°	530	4799	5329
55°	508	4694	5093
60°	521	4490	4720
65°	544	4179	4207
70°	580	3647	3554
75°	644	2976	2774
80°	711	2066	1869
85°	645	1098	957

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5419 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.0	1.0
10°-20°	354.5	4.6
20°-30°	620.0	8.1
30°-40°	798.1	10.4
40°-50°	891.5	11.6
50°-60°	853.8	11.2
60°-70°	676.7	8.8
70°-80°	397.9	5.2
80°-90°	112.2	1.5
90°-100°	215.6	2.8
100°-110°	566.9	7.4
110°-120°	587.8	7.7
120°-130°	471.5	6.2
130°-140°	369.9	4.8
140°-150°	283.9	3.7
150°-160°	204.5	2.7
160°-170°	125.1	1.6
170°-180°	42.3	0.6
0°-30°	1054.4	13.8
0°-40°	1852.5	24.2
0°-60°	3597.8	47.0
0°-90°	4784.6	62.5
90°-120°	1370.3	17.9
90°-150°	2495.6	32.6
90°-180°	2867.0	37.5
0°-180°	7652.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	618	618	618	618	618	
5°	602	646	728	823	853	56
15°	451	833	1404	1702	1755	126
25°	288	944	1672	1746	1748	133
35°	195	902	1574	1664	1730	122
45°	133	720	1392	1594	1666	103
55°	95	457	1181	1372	1410	87
65°	76	243	877	986	1000	75
75°	56	149	481	529	531	58
85°	20	46	119	131	133	21
90°	3	8	22	11	11	4
95°	28	112	371	192	130	32
105°	102	155	627	951	888	108
115°	181	220	502	1001	1143	179
125°	252	283	457	772	910	224
135°	301	331	442	623	706	233
145°	349	371	437	531	573	219
155°	394	405	437	480	493	181
165°	425	431	437	454	460	120
175°	442	442	440	445	445	42
180°	442	442	442	442	442	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3
2.5°	618.3	618.3	622.2	624.2	628.2	630.1	634.2	638.1	650.1	652.1	656.0
5°	602.4	610.3	636.2	646.1	673.9	711.7	727.6	753.4	807.1	823.0	833.0
7.5°	578.5	596.4	660.0	675.9	745.5	844.9	886.6	942.4	1027.8	1069.5	1103.3
10°	540.7	578.5	691.8	729.6	842.9	994.0	1071.5	1149.0	1278.3	1336.0	1357.8
12.5°	498.9	560.6	725.6	777.3	940.3	1161.0	1254.5	1339.9	1487.0	1564.6	1576.5
15°	451.3	534.8	757.4	833.0	1043.7	1300.1	1403.6	1508.9	1646.1	1701.7	1715.7
17.5°	409.5	514.8	787.2	866.8	1123.3	1425.4	1530.7	1618.2	1729.6	1767.3	1777.3
20°	357.9	483.1	807.1	910.5	1206.7	1516.9	1618.2	1685.8	1761.4	1785.2	1789.2
22.5°	320.1	449.2	819.1	926.4	1262.4	1572.5	1658.0	1711.7	1763.4	1771.3	1773.3
25°	288.3	411.5	817.1	944.3	1310.1	1606.3	1671.9	1711.7	1741.4	1745.5	1745.5
27.5°	258.5	369.8	809.1	948.3	1345.9	1614.3	1666.0	1693.7	1707.7	1715.7	1715.7
30°	232.6	330.0	789.2	940.3	1361.8	1606.3	1648.1	1662.0	1675.8	1687.8	1693.7
32.5°	212.7	292.3	759.4	924.4	1363.7	1586.4	1616.3	1624.2	1644.0	1671.9	1681.9
35°	194.8	254.5	725.6	902.5	1351.9	1554.6	1574.5	1582.5	1622.2	1664.0	1677.8
37.5°	177.0	226.6	681.9	864.8	1333.9	1516.9	1530.7	1544.6	1606.3	1656.0	1671.9
40°	159.1	202.7	630.1	823.0	1306.1	1471.1	1483.1	1504.9	1586.4	1644.0	1659.9
42.5°	145.1	182.9	574.5	779.3	1270.4	1419.5	1437.3	1469.2	1562.5	1624.2	1642.1
45°	133.2	163.0	514.8	719.7	1224.6	1365.7	1391.6	1435.4	1534.8	1594.3	1610.2
47.5°	121.2	149.1	453.3	658.0	1174.9	1312.1	1345.9	1395.6	1496.9	1554.6	1568.5
50°	111.3	135.2	391.6	592.4	1121.2	1254.5	1294.2	1345.9	1449.3	1502.9	1520.8
52.5°	103.3	123.3	333.9	526.8	1059.6	1194.8	1240.5	1294.2	1391.6	1443.3	1455.2
55°	95.4	113.3	284.2	457.2	996.0	1131.2	1180.9	1232.5	1328.0	1371.7	1379.6
57.5°	91.5	105.3	242.6	391.6	928.4	1059.6	1115.3	1163.0	1252.4	1286.3	1294.2
60°	85.5	99.4	210.7	336.0	854.8	992.1	1039.8	1087.4	1163.0	1190.8	1196.8
62.5°	79.5	95.4	186.8	282.3	779.3	912.5	960.2	1003.9	1067.5	1087.4	1095.4
65°	75.6	91.5	168.9	242.6	701.8	829.0	876.8	914.5	966.2	986.0	990.0
67.5°	71.5	87.4	155.0	208.8	624.2	745.5	781.3	817.1	856.8	876.8	878.7
70°	65.6	83.5	143.2	184.9	544.7	650.1	679.9	717.7	749.5	759.4	765.4
72.5°	61.7	77.6	135.2	167.0	463.2	558.6	586.5	608.3	636.2	646.1	646.1
75°	55.6	69.6	127.3	149.1	379.7	457.2	481.1	503.0	524.8	528.8	522.8
77.5°	49.7	61.7	109.4	125.3	296.2	361.8	381.7	393.6	411.5	415.5	417.4
80°	41.8	53.6	85.5	97.4	214.7	266.4	280.3	290.3	306.2	306.2	310.1
82.5°	31.8	41.8	61.7	69.6	145.1	182.9	194.8	200.8	210.7	210.7	210.7
85°	19.9	25.9	39.7	45.7	87.4	111.3	119.3	121.2	129.2	131.2	131.2
87.5°	10.0	13.9	25.9	27.9	45.7	57.7	57.7	61.7	61.7	59.7	57.7
90°	3.0	5.3	7.7	8.3	13.0	19.4	22.5	20.1	15.0	11.3	11.3
92.5°	11.9	32.0	52.3	57.3	80.5	111.5	127.1	111.3	79.9	56.4	54.1
95°	28.5	65.4	102.4	111.6	198.2	313.7	371.4	331.4	251.4	191.5	184.7
97.5°	49.3	81.9	114.5	122.6	267.0	459.5	555.8	530.5	480.0	442.0	429.1
100°	65.3	94.8	124.4	131.8	292.1	505.7	612.5	614.3	618.0	620.8	605.3
102.5°	78.9	106.5	134.1	141.0	303.5	520.2	628.5	660.7	725.0	773.3	760.1
105°	102.2	125.5	148.8	154.6	312.0	521.8	626.7	698.8	843.2	951.4	944.3
107.5°	125.9	147.6	169.4	174.9	313.6	498.5	591.0	691.7	893.1	1044.1	1045.8
110°	141.9	161.5	181.2	186.1	311.2	478.0	561.4	673.9	899.0	1067.8	1075.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	157.7	176.4	195.1	199.8	311.3	460.0	534.4	649.6	879.9	1052.7	1064.1
115°	181.4	198.7	216.0	220.3	314.2	439.4	502.0	613.0	834.9	1001.3	1017.0
117.5°	204.8	220.5	236.2	240.2	320.0	426.5	479.8	580.0	780.2	930.4	947.9
120°	218.4	233.3	248.1	251.7	324.8	422.1	470.8	562.3	745.3	882.6	899.6
122.5°	231.9	246.8	261.6	265.4	331.6	419.8	464.0	546.4	711.2	834.8	851.5
125°	252.3	266.0	279.6	283.0	340.9	418.0	456.6	526.5	666.5	771.5	786.9
127.5°	268.9	282.7	296.4	299.9	350.0	416.9	450.3	510.4	630.6	720.7	733.8
130°	277.8	292.6	307.5	311.1	356.8	417.5	448.0	501.5	608.5	688.7	700.8
132.5°	287.1	301.8	316.7	320.3	362.2	418.0	445.9	493.8	589.6	661.5	672.2
135°	300.7	314.2	327.6	331.0	368.1	417.6	442.3	482.4	562.7	622.8	632.1
137.5°	314.7	328.0	341.3	344.6	377.0	420.2	441.7	475.6	543.4	594.3	601.9
140°	326.2	338.5	350.8	353.9	382.5	420.6	439.7	468.9	527.5	571.5	578.6
142.5°	335.1	346.5	357.9	360.7	387.0	422.1	439.7	465.3	516.8	555.5	561.6
145°	348.9	358.7	368.6	371.1	392.9	422.1	436.7	457.7	499.8	531.3	536.0
147.5°	362.5	372.1	381.8	384.1	401.6	425.0	436.7	453.3	486.4	511.2	515.0
150°	371.4	380.1	388.8	391.0	406.2	426.5	436.7	450.7	478.7	499.6	502.7
152.5°	380.6	387.2	393.7	395.4	409.1	427.5	436.7	448.7	472.6	490.4	492.8
155°	394.2	399.1	404.0	405.2	415.7	429.7	436.7	446.2	465.2	479.5	481.1
157.5°	404.3	409.0	413.9	415.1	422.3	431.9	436.7	444.1	458.8	469.9	471.0
160°	411.2	414.9	418.6	419.5	425.2	432.8	436.7	443.0	455.7	465.2	465.7
162.5°	418.0	420.8	423.6	424.2	428.4	433.9	436.7	442.0	452.7	460.7	461.3
165°	425.4	427.9	430.5	431.1	432.9	435.4	436.7	440.5	448.2	453.9	454.5
167.5°	432.2	433.4	434.6	434.9	436.5	438.6	439.7	442.1	447.2	450.9	451.2
170°	436.7	437.9	439.1	439.4	439.5	439.6	439.7	442.1	447.2	450.9	450.9
172.5°	439.1	439.4	439.6	439.7	439.7	439.7	439.7	441.6	445.6	448.6	448.4
175°	442.3	442.3	442.3	442.3	441.4	440.3	439.7	440.9	443.4	445.3	445.3
177.5°	442.3	442.3	442.3	442.3	441.6	440.7	440.3	441.2	443.2	444.7	444.4
180°	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3	442.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	618.3	618.3
2.5°	660.0	656.0
5°	848.9	852.8
7.5°	1143.1	1141.1
10°	1421.4	1439.3
12.5°	1624.2	1628.1
15°	1747.5	1755.4
17.5°	1795.2	1797.2
20°	1797.2	1793.2
22.5°	1775.2	1771.3
25°	1749.5	1747.5
27.5°	1725.5	1727.6
30°	1715.7	1721.6
32.5°	1715.7	1725.5
35°	1719.6	1729.6
37.5°	1717.6	1729.6
40°	1709.6	1723.6
42.5°	1687.8	1697.8
45°	1654.0	1666.0
47.5°	1610.2	1618.2
50°	1554.6	1562.5
52.5°	1485.1	1487.0
55°	1401.6	1409.5
57.5°	1312.1	1314.0
60°	1212.7	1218.6
62.5°	1107.4	1107.4
65°	996.0	1000.0
67.5°	880.7	890.6
70°	763.4	765.4
72.5°	648.1	648.1
75°	528.8	530.8
77.5°	415.5	415.5
80°	308.2	310.1
82.5°	212.7	216.7
85°	133.2	133.2
87.5°	61.7	55.6
90°	11.3	11.3
92.5°	45.3	36.3
95°	157.5	130.3
97.5°	377.4	325.6
100°	543.8	482.1
102.5°	707.3	654.6
105°	916.0	887.6
107.5°	1052.7	1059.5
110°	1104.8	1134.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1109.4	1154.8
115°	1080.0	1142.9
117.5°	1017.6	1087.4
120°	967.4	1035.1
122.5°	918.4	985.3
125°	848.5	910.1
127.5°	785.8	837.7
130°	748.8	796.8
132.5°	715.2	758.2
135°	669.2	706.2
137.5°	632.2	662.7
140°	606.9	635.3
142.5°	586.0	610.4
145°	554.5	572.9
147.5°	530.4	545.7
150°	515.1	527.5
152.5°	502.1	511.5
155°	487.2	493.4
157.5°	475.4	479.8
160°	468.3	470.8
162.5°	463.7	466.0
165°	457.0	459.5
167.5°	452.2	453.3
170°	450.9	450.9
172.5°	447.4	446.5
175°	445.3	445.3
177.5°	443.4	442.3
180°	442.3	442.3



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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	4.33	5.37	5.16	6.23	7.31	17.52	18.56	18.35	19.42	20.50
	3H	5.05	5.98	5.89	6.85	7.96	19.38	20.31	20.22	21.18	22.29
	4H	5.35	6.24	6.21	7.12	8.23	20.03	20.92	20.90	21.80	22.91
	6H	5.61	6.43	6.49	7.31	8.44	20.48	21.30	21.35	22.18	23.31
	8H	5.69	6.47	6.57	7.37	8.50	20.61	21.39	21.49	22.29	23.42
	12H	5.71	6.45	6.60	7.35	8.51	20.68	21.43	21.57	22.32	23.48
4H	2H	11.57	12.46	12.44	13.34	14.45	17.81	18.70	18.68	19.58	20.69
	3H	13.16	13.90	14.03	14.81	15.94	19.88	20.62	20.76	21.53	22.66
	4H	13.26	13.94	14.15	14.84	16.00	20.66	21.34	21.55	22.24	23.40
	6H	13.28	13.87	14.18	14.80	15.95	21.21	21.80	22.12	22.73	23.89
	8H	13.26	13.81	14.17	14.73	15.91	21.38	21.93	22.29	22.86	24.03
	12H	13.23	13.72	14.16	14.67	15.84	21.49	21.99	22.42	22.93	24.11
8H	4H	14.72	15.27	15.63	16.20	17.37	20.74	21.28	21.64	22.21	23.38
	6H	14.97	15.43	15.91	16.39	17.56	21.38	21.83	22.31	22.80	23.97
	8H	14.99	15.40	15.94	16.35	17.54	21.60	22.01	22.55	22.96	24.15
	12H	14.97	15.33	15.92	16.28	17.51	21.76	22.12	22.71	23.07	24.30
12H	4H	14.88	15.37	15.80	16.31	17.49	20.70	21.19	21.63	22.14	23.31
	6H	15.23	15.64	16.18	16.60	17.78	21.36	21.77	22.31	22.72	23.91
	8H	15.31	15.67	16.26	16.62	17.86	21.60	21.96	22.55	22.91	24.15