

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: P936812

Luminaire Tested: SQ4-FB-050U-100D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936812
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

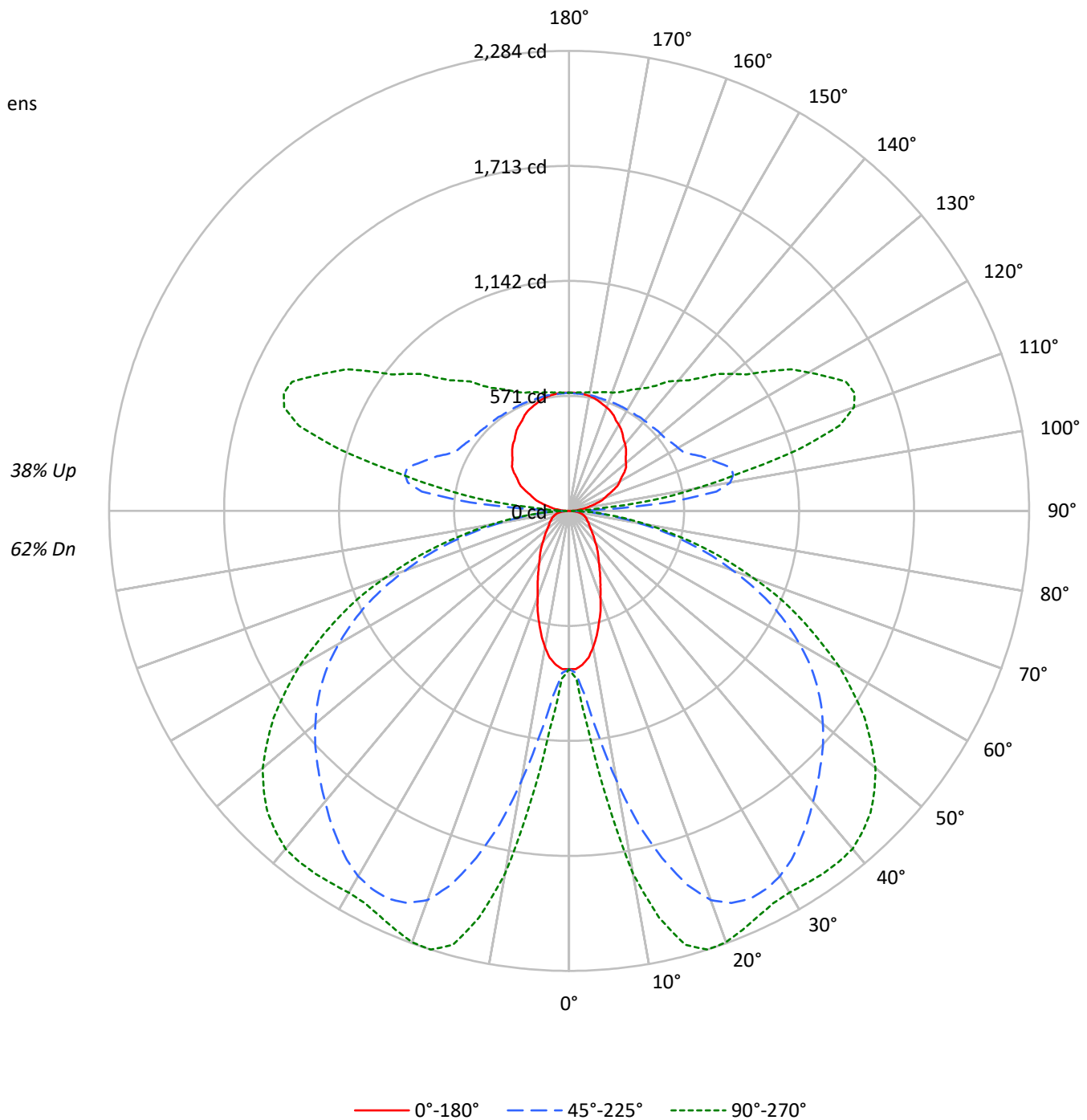
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9887.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 90.4
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

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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	67	67	67	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3645	3645	3645
5°	3561	4213	4900
10°	3230	6142	8123
15°	2745	8024	9809
20°	2235	9299	9997
25°	1864	9730	9794
30°	1572	9792	9775
35°	1390	9629	10028
40°	1211	9418	10289
45°	1097	9263	10330
50°	1006	9124	10158
55°	963	8920	9709
60°	986	8528	8997
65°	1026	7933	8020
70°	1094	6918	6775
75°	1211	5641	5288
80°	1325	3912	3564
85°	1174	2076	1824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	1.0
10°-20°	450.4	4.6
20°-30°	787.9	8.0
30°-40°	1014.3	10.3
40°-50°	1132.9	11.5
50°-60°	1085.1	11.0
60°-70°	859.9	8.7
70°-80°	505.7	5.1
80°-90°	142.7	1.4
90°-100°	286.2	2.9
100°-110°	752.5	7.6
110°-120°	780.3	7.9
120°-130°	625.9	6.3
130°-140°	491.1	5.0
140°-150°	376.9	3.8
150°-160°	271.4	2.7
160°-170°	166.1	1.7
170°-180°	56.1	0.6
0°-30°	1340.0	13.6
0°-40°	2354.3	23.8
0°-60°	4572.2	46.2
0°-90°	6080.5	61.5
90°-120°	1819.0	18.4
90°-150°	3312.8	33.5
90°-180°	3806.0	38.5
0°-180°	9887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	766	821	925	1046	1084	71
15°	574	1059	1784	2163	2231	160
25°	366	1200	2125	2218	2221	169
35°	248	1147	2001	2115	2198	155
45°	169	914	1768	2026	2117	131
55°	121	581	1501	1743	1791	110
65°	96	308	1114	1253	1271	95
75°	71	190	611	672	675	74
85°	25	58	152	167	169	27
90°	4	11	30	15	15	5
95°	38	148	493	254	173	42
105°	136	205	832	1263	1178	144
115°	241	292	666	1329	1517	238
125°	335	376	606	1024	1208	297
135°	399	439	587	827	938	309
145°	463	493	580	705	761	290
155°	523	538	580	636	655	240
165°	565	572	580	603	610	159
175°	587	587	584	591	591	56
180°	587	587	587	587	587	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7
2.5°	785.7	785.7	790.8	793.3	798.4	800.8	805.9	811.0	826.2	828.7	833.7
5°	765.5	775.6	808.5	821.1	856.5	904.5	924.6	957.5	1025.7	1046.0	1058.6
7.5°	735.2	757.9	838.8	859.0	947.4	1073.7	1126.7	1197.5	1306.2	1359.2	1402.2
10°	687.2	735.2	879.2	927.2	1071.2	1263.2	1361.7	1460.3	1624.4	1697.8	1725.5
12.5°	634.1	712.4	922.2	987.8	1195.0	1475.4	1594.1	1702.8	1889.7	1988.3	2003.4
15°	573.5	679.6	962.6	1058.6	1326.4	1652.3	1783.6	1917.5	2091.8	2162.6	2180.3
17.5°	520.4	654.4	1000.5	1101.5	1427.4	1811.4	1945.4	2056.5	2197.9	2245.9	2258.6
20°	454.8	613.9	1025.7	1157.0	1533.5	1927.7	2056.5	2142.4	2238.4	2268.7	2273.8
22.5°	406.8	570.9	1040.9	1177.3	1604.3	1998.4	2107.0	2175.2	2241.0	2251.0	2253.6
25°	366.3	522.9	1038.3	1200.1	1664.9	2041.3	2124.7	2175.2	2213.1	2218.2	2218.2
27.5°	328.4	469.9	1028.3	1205.1	1710.4	2051.5	2117.2	2152.5	2170.2	2180.3	2180.3
30°	295.6	419.4	1002.9	1195.0	1730.6	2041.3	2094.4	2112.1	2129.8	2144.9	2152.5
32.5°	270.4	371.4	965.1	1174.7	1733.1	2016.1	2054.0	2064.1	2089.3	2124.7	2137.3
35°	247.6	323.4	922.2	1147.0	1717.9	1975.7	2000.9	2011.0	2061.5	2114.6	2132.3
37.5°	224.9	288.0	866.5	1099.0	1695.2	1927.7	1945.4	1963.1	2041.3	2104.4	2124.7
40°	202.1	257.7	800.8	1046.0	1659.8	1869.6	1884.7	1912.5	2016.1	2089.3	2109.5
42.5°	184.4	232.4	730.1	990.3	1614.4	1803.9	1826.6	1867.0	1985.7	2064.1	2086.9
45°	169.3	207.2	654.4	914.5	1556.3	1735.6	1768.5	1824.0	1950.3	2026.1	2046.4
47.5°	154.1	189.5	576.0	836.2	1493.1	1667.5	1710.4	1773.6	1902.3	1975.7	1993.4
50°	141.5	171.8	497.7	752.8	1424.9	1594.1	1644.7	1710.4	1841.7	1910.0	1932.6
52.5°	131.4	156.6	424.5	669.5	1346.5	1518.3	1576.4	1644.7	1768.5	1834.2	1849.3
55°	121.2	144.0	361.3	581.1	1265.7	1437.5	1500.6	1566.4	1687.6	1743.2	1753.3
57.5°	116.2	133.9	308.2	497.7	1179.8	1346.5	1417.3	1478.0	1591.6	1634.6	1644.7
60°	108.6	126.3	267.8	426.9	1086.4	1260.7	1321.3	1381.9	1478.0	1513.3	1520.9
62.5°	101.0	121.2	237.5	358.8	990.3	1159.6	1220.2	1275.9	1356.7	1381.9	1392.0
65°	96.0	116.2	214.7	308.2	891.9	1053.5	1114.1	1162.1	1227.8	1253.1	1258.2
67.5°	90.9	111.2	197.0	265.3	793.3	947.4	992.9	1038.3	1088.9	1114.1	1116.7
70°	83.4	106.1	181.9	235.0	692.2	826.2	864.0	912.0	952.5	965.1	972.6
72.5°	78.3	98.6	171.8	212.2	588.6	709.9	745.3	773.1	808.5	821.1	821.1
75°	70.7	88.4	161.7	189.5	482.6	581.1	611.4	639.2	667.0	672.1	664.4
77.5°	63.2	78.3	138.9	159.2	376.5	459.8	485.1	500.2	522.9	528.0	530.6
80°	53.1	68.3	108.6	123.8	272.8	338.5	356.2	368.8	389.1	389.1	394.2
82.5°	40.4	53.1	78.3	88.4	184.4	232.4	247.6	255.2	267.8	267.8	267.8
85°	25.2	32.9	50.6	58.1	111.2	141.5	151.6	154.1	164.2	166.7	166.7
87.5°	12.6	17.7	32.9	35.4	58.1	73.2	73.2	78.3	78.3	75.8	73.2
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.6	20.0	15.0	15.0
92.5°	15.8	42.5	69.4	76.1	107.0	148.1	168.6	147.8	106.1	74.9	71.9
95°	37.9	86.9	135.9	148.2	263.1	416.3	493.0	440.0	333.8	254.2	245.2
97.5°	65.4	108.6	151.9	162.7	354.4	609.9	737.7	704.2	637.1	586.8	569.6
100°	86.7	125.9	165.1	174.9	387.7	671.2	813.0	815.5	820.3	824.0	803.5
102.5°	104.9	141.5	178.0	187.2	402.9	690.5	834.3	877.0	962.5	1026.6	1009.1
105°	135.6	166.5	197.6	205.3	414.2	692.7	831.9	927.7	1119.4	1263.1	1253.6
107.5°	167.1	196.0	224.9	232.1	416.2	661.8	784.6	918.2	1185.5	1386.0	1388.3
110°	188.3	214.4	240.6	247.1	413.2	634.5	745.2	894.6	1193.4	1417.5	1427.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.3	234.1	259.0	265.2	413.3	610.7	709.4	862.2	1168.0	1397.4	1412.5
115°	240.8	263.8	286.7	292.4	417.1	583.4	666.4	813.7	1108.3	1329.2	1350.1
117.5°	271.9	292.7	313.6	318.8	424.8	566.1	636.8	769.8	1035.6	1235.1	1258.2
120°	290.1	309.6	329.3	334.2	431.2	560.4	625.0	746.4	989.4	1171.6	1194.0
122.5°	307.7	327.5	347.3	352.3	440.1	557.3	616.0	725.3	944.1	1108.2	1130.4
125°	335.0	353.0	371.0	375.5	452.4	554.9	606.1	699.0	884.9	1024.3	1044.7
127.5°	357.1	375.2	393.4	398.0	464.6	553.4	597.8	677.6	837.2	956.9	974.1
130°	368.8	388.4	408.1	413.0	473.5	554.3	594.6	665.7	807.7	914.2	930.2
132.5°	381.1	400.7	420.4	425.2	480.8	554.9	592.0	655.5	782.7	878.0	892.2
135°	399.2	417.1	434.9	439.4	488.6	554.3	587.2	640.4	746.9	826.7	839.1
137.5°	417.8	435.5	453.1	457.5	500.5	557.7	586.4	631.4	721.5	789.0	799.0
140°	433.1	449.4	465.7	469.8	507.7	558.3	583.6	622.5	700.3	758.6	768.0
142.5°	444.9	459.9	475.0	478.8	513.8	560.3	583.6	617.8	686.1	737.4	745.5
145°	463.1	476.2	489.4	492.6	521.7	560.4	579.7	607.6	663.6	705.4	711.6
147.5°	481.2	494.0	506.8	509.9	533.2	564.2	579.7	601.7	645.6	678.6	683.6
150°	493.0	504.6	516.1	519.0	539.3	566.2	579.7	598.3	635.5	663.3	667.4
152.5°	505.2	514.0	522.7	524.9	543.2	567.6	579.7	595.6	627.2	651.0	654.2
155°	523.3	529.8	536.3	537.9	551.9	570.4	579.7	592.3	617.5	636.4	638.5
157.5°	536.7	543.0	549.3	550.9	560.5	573.3	579.7	589.5	609.1	623.8	625.2
160°	545.8	550.8	555.6	556.9	564.5	574.7	579.7	588.1	604.9	617.5	618.3
162.5°	554.9	558.6	562.2	563.2	568.7	576.1	579.7	586.8	601.0	611.6	612.4
165°	564.7	568.1	571.3	572.2	574.7	578.0	579.7	584.8	594.9	602.6	603.4
167.5°	573.8	575.3	576.9	577.3	579.4	582.2	583.6	587.0	593.7	598.6	599.0
170°	579.7	581.2	582.9	583.3	583.4	583.5	583.6	587.0	593.7	598.6	598.6
172.5°	582.9	583.3	583.5	583.6	583.6	583.6	583.6	586.3	591.6	595.5	595.2
175°	587.2	587.2	587.2	587.2	586.0	584.4	583.6	585.3	588.6	591.1	591.1
177.5°	587.2	587.2	587.2	587.2	586.2	585.0	584.4	585.7	588.3	590.3	589.9
180°	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	785.7	785.7
2.5°	838.8	833.7
5°	1078.8	1083.8
7.5°	1452.6	1450.2
10°	1806.4	1829.1
12.5°	2064.1	2069.2
15°	2220.7	2230.8
17.5°	2281.3	2283.9
20°	2283.9	2278.8
22.5°	2256.1	2251.0
25°	2223.3	2220.7
27.5°	2192.9	2195.5
30°	2180.3	2187.9
32.5°	2180.3	2192.9
35°	2185.3	2197.9
37.5°	2182.8	2197.9
40°	2172.7	2190.4
42.5°	2144.9	2157.5
45°	2102.0	2117.2
47.5°	2046.4	2056.5
50°	1975.7	1985.7
52.5°	1887.2	1889.7
55°	1781.1	1791.3
57.5°	1667.5	1669.9
60°	1541.1	1548.7
62.5°	1407.2	1407.2
65°	1265.7	1270.8
67.5°	1119.2	1131.8
70°	970.1	972.6
72.5°	823.6	823.6
75°	672.1	674.6
77.5°	528.0	528.0
80°	391.6	394.2
82.5°	270.4	275.4
85°	169.3	169.3
87.5°	78.3	70.7
90°	15.0	15.0
92.5°	59.9	48.1
95°	209.1	173.0
97.5°	500.9	432.3
100°	721.8	639.9
102.5°	939.0	868.9
105°	1215.9	1178.3
107.5°	1397.4	1406.5
110°	1466.5	1505.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1472.7	1532.9
115°	1433.6	1517.2
117.5°	1350.9	1443.6
120°	1284.1	1374.2
122.5°	1219.2	1308.0
125°	1126.5	1208.3
127.5°	1043.1	1112.1
130°	994.0	1057.7
132.5°	949.4	1006.5
135°	888.3	937.5
137.5°	839.4	879.6
140°	805.6	843.3
142.5°	777.8	810.2
145°	736.1	760.6
147.5°	704.0	724.4
150°	683.8	700.3
152.5°	666.6	679.0
155°	646.7	655.0
157.5°	631.1	636.8
160°	621.7	625.0
162.5°	615.6	618.7
165°	606.7	610.0
167.5°	600.4	601.8
170°	598.6	598.6
172.5°	594.0	592.7
175°	591.1	591.1
177.5°	588.6	587.2
180°	587.2	587.2



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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	6.48	7.51	7.33	8.38	9.47	19.66	20.69	20.50	21.56	22.65
	3H	7.20	8.12	8.06	9.00	10.12	21.51	22.44	22.37	23.32	24.44
	4H	7.51	8.38	8.38	9.27	10.40	22.17	23.04	23.04	23.93	25.06
	6H	7.77	8.57	8.65	9.47	10.61	22.60	23.41	23.49	24.31	25.45
	8H	7.84	8.61	8.73	9.52	10.66	22.73	23.50	23.62	24.41	25.56
	12H	7.86	8.60	8.76	9.50	10.67	22.80	23.54	23.70	24.45	25.62
4H	2H	13.72	14.59	14.59	15.48	16.61	19.96	20.83	20.83	21.72	22.85
	3H	15.30	16.03	16.19	16.95	18.10	22.02	22.75	22.90	23.67	24.81
	4H	15.40	16.07	16.30	16.99	18.16	22.79	23.46	23.69	24.37	25.55
	6H	15.42	16.00	16.34	16.94	18.11	23.34	23.92	24.25	24.86	26.03
	8H	15.40	15.95	16.32	16.88	18.07	23.51	24.05	24.42	24.98	26.17
	12H	15.37	15.86	16.31	16.81	18.00	23.61	24.10	24.55	25.05	26.24
8H	4H	16.86	17.40	17.78	18.34	19.52	22.86	23.41	23.78	24.34	25.53
	6H	17.11	17.56	18.06	18.54	19.72	23.50	23.95	24.45	24.93	26.11
	8H	17.13	17.53	18.09	18.50	19.70	23.72	24.12	24.68	25.09	26.29
	12H	17.11	17.46	18.07	18.42	19.67	23.88	24.23	24.84	25.19	26.44
12H	4H	17.01	17.50	17.95	18.45	19.65	22.83	23.32	23.76	24.27	25.46
	6H	17.37	17.77	18.33	18.74	19.94	23.49	23.89	24.44	24.85	26.06
	8H	17.45	17.80	18.41	18.76	20.01	23.73	24.08	24.68	25.04	26.29