

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: P936847

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936847
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-92765-1D-UNV-STD-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

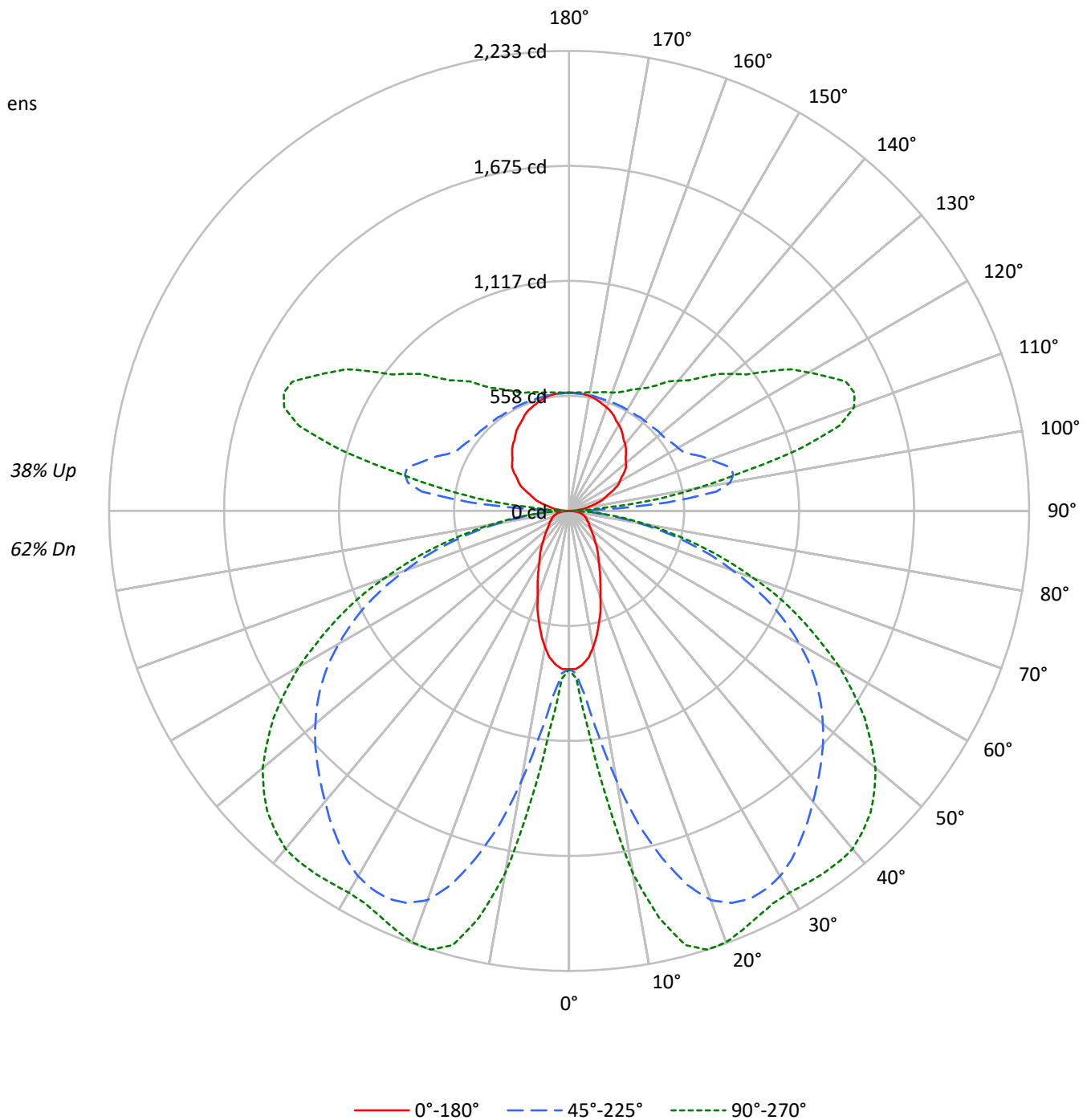
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9666.8 lumens
Efficiency: N/A
Efficacy: 106.9 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

TEST NUMBER: P936847
CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-5000K

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3564	3564	3564
5°	3482	4119	4791
10°	3158	6005	7943
15°	2684	7845	9590
20°	2185	9091	9774
25°	1823	9514	9575
30°	1537	9574	9558
35°	1359	9415	9804
40°	1184	9208	10060
45°	1073	9057	10100
50°	984	8921	9932
55°	942	8721	9492
60°	965	8339	8797
65°	1003	7756	7842
70°	1069	6764	6625
75°	1185	5514	5170
80°	1295	3825	3484
85°	1150	2029	1783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10100 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.4	1.0
10°-20°	440.4	4.6
20°-30°	770.4	8.0
30°-40°	991.7	10.3
40°-50°	1107.7	11.5
50°-60°	1060.9	11.0
60°-70°	840.8	8.7
70°-80°	494.4	5.1
80°-90°	139.5	1.4
90°-100°	279.8	2.9
100°-110°	735.7	7.6
110°-120°	762.9	7.9
120°-130°	611.9	6.3
130°-140°	480.1	5.0
140°-150°	368.5	3.8
150°-160°	265.4	2.7
160°-170°	162.4	1.7
170°-180°	54.9	0.6
0°-30°	1310.1	13.6
0°-40°	2301.8	23.8
0°-60°	4470.4	46.2
0°-90°	5945.1	61.5
90°-120°	1778.5	18.4
90°-150°	3239.0	33.5
90°-180°	3722.0	38.5
0°-180°	9666.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	803	904	1023	1060	69
15°	561	1035	1744	2114	2181	156
25°	358	1173	2077	2169	2171	165
35°	242	1122	1956	2068	2149	151
45°	166	894	1729	1981	2070	128
55°	118	568	1467	1704	1751	108
65°	94	301	1089	1225	1242	93
75°	69	185	598	657	660	72
85°	25	57	148	163	166	26
90°	4	11	29	15	15	5
95°	37	145	482	248	169	41
105°	132	201	813	1235	1152	141
115°	236	286	652	1300	1483	233
125°	328	367	593	1001	1181	291
135°	390	430	574	808	917	302
145°	453	482	567	690	744	284
155°	512	526	567	622	640	235
165°	552	559	567	589	596	156
175°	574	574	571	578	578	54
180°	574	574	574	574	574	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2
2.5°	768.2	768.2	773.2	775.6	780.6	783.0	788.0	792.9	807.8	810.2	815.2
5°	748.4	758.3	790.5	802.8	837.4	884.3	904.0	936.2	1002.8	1022.7	1035.0
7.5°	718.8	741.0	820.1	839.8	926.3	1049.8	1101.6	1170.8	1277.1	1329.0	1370.9
10°	671.9	718.8	859.6	906.6	1047.3	1235.0	1331.4	1427.8	1588.3	1659.9	1687.1
12.5°	620.0	696.5	901.6	965.8	1168.4	1442.5	1558.6	1664.9	1847.6	1944.0	1958.8
15°	560.7	664.5	941.2	1035.0	1296.8	1615.5	1743.9	1874.8	2045.2	2114.4	2131.7
17.5°	508.9	639.8	978.2	1077.0	1395.6	1771.1	1902.0	2010.6	2149.0	2195.9	2208.3
20°	444.6	600.3	1002.8	1131.3	1499.4	1884.7	2010.6	2094.7	2188.5	2218.2	2223.1
22.5°	397.7	558.2	1017.7	1151.1	1568.5	1953.9	2060.1	2126.7	2191.0	2200.9	2203.4
25°	358.2	511.3	1015.2	1173.3	1627.8	1995.9	2077.4	2126.7	2163.8	2168.8	2168.8
27.5°	321.1	459.4	1005.4	1178.3	1672.3	2005.8	2070.0	2104.6	2121.9	2131.7	2131.7
30°	289.0	410.1	980.6	1168.4	1692.0	1995.9	2047.8	2065.0	2082.3	2097.1	2104.6
32.5°	264.3	363.1	943.6	1148.6	1694.5	1971.2	2008.2	2018.1	2042.8	2077.4	2089.7
35°	242.1	316.2	901.6	1121.5	1679.7	1931.7	1956.3	1966.2	2015.6	2067.5	2084.8
37.5°	219.8	281.6	847.2	1074.5	1657.4	1884.7	1902.0	1919.3	1995.9	2057.6	2077.4
40°	197.6	252.0	783.0	1022.7	1622.8	1827.9	1842.7	1869.9	1971.2	2042.8	2062.5
42.5°	180.3	227.2	713.8	968.3	1578.4	1763.7	1785.9	1825.4	1941.5	2018.1	2040.4
45°	165.5	202.6	639.8	894.1	1521.6	1697.0	1729.1	1783.4	1906.9	1981.0	2000.8
47.5°	150.7	185.3	563.2	817.6	1459.8	1630.3	1672.3	1734.1	1860.0	1931.7	1949.0
50°	138.3	168.0	486.6	736.1	1393.2	1558.6	1608.1	1672.3	1800.7	1867.4	1889.6
52.5°	128.4	153.1	415.0	654.6	1316.5	1484.5	1541.3	1608.1	1729.1	1793.3	1808.1
55°	118.5	140.8	353.2	568.1	1237.6	1405.5	1467.2	1531.5	1650.0	1704.3	1714.3
57.5°	113.7	131.0	301.3	486.6	1153.5	1316.5	1385.7	1445.1	1556.2	1598.2	1608.1
60°	106.2	123.5	261.8	417.4	1062.2	1232.6	1291.9	1351.1	1445.1	1479.6	1487.0
62.5°	98.8	118.5	232.2	350.8	968.3	1133.8	1193.1	1247.5	1326.4	1351.1	1361.0
65°	93.8	113.7	209.9	301.3	872.0	1030.0	1089.3	1136.2	1200.4	1225.2	1230.2
67.5°	88.9	108.7	192.6	259.4	775.6	926.3	970.8	1015.2	1064.6	1089.3	1091.8
70°	81.5	103.8	177.9	229.8	676.8	807.8	844.8	891.7	931.2	943.6	951.0
72.5°	76.6	96.4	168.0	207.5	575.5	694.1	728.7	755.9	790.5	802.8	802.8
75°	69.2	86.5	158.1	185.3	471.8	568.1	597.7	624.9	652.1	657.1	649.6
77.5°	61.8	76.6	135.8	155.6	368.1	449.6	474.3	489.0	511.3	516.2	518.8
80°	51.9	66.7	106.2	121.0	266.8	331.0	348.3	360.6	380.4	380.4	385.4
82.5°	39.5	51.9	76.6	86.5	180.3	227.2	242.1	249.5	261.8	261.8	261.8
85°	24.7	32.2	49.4	56.8	108.7	138.3	148.2	150.7	160.6	163.0	163.0
87.5°	12.3	17.3	32.2	34.6	56.8	71.6	71.6	76.6	76.6	74.1	71.6
90°	3.8	6.9	10.0	10.7	16.9	25.1	29.3	26.0	19.5	14.7	14.7
92.5°	15.4	41.6	67.9	74.4	104.6	144.8	164.9	144.5	103.8	73.2	70.3
95°	37.0	85.0	132.9	144.9	257.2	407.1	482.0	430.2	326.4	248.5	239.8
97.5°	63.9	106.2	148.5	159.1	346.5	596.3	721.3	688.5	622.9	573.7	556.9
100°	84.8	123.1	161.4	171.1	379.0	656.3	794.9	797.3	802.1	805.6	785.6
102.5°	102.5	138.3	174.0	183.0	393.9	675.1	815.7	857.5	941.1	1003.7	986.6
105°	132.5	162.8	193.2	200.8	405.0	677.3	813.4	907.0	1094.4	1234.9	1225.7
107.5°	163.4	191.6	219.8	226.9	407.0	647.1	767.1	897.8	1159.1	1355.1	1357.4
110°	184.1	209.7	235.3	241.6	404.0	620.4	728.6	874.7	1166.8	1385.9	1395.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	204.6	228.9	253.2	259.3	404.1	597.1	693.6	843.0	1142.0	1366.3	1381.0
115°	235.5	257.9	280.3	285.9	407.8	570.4	651.6	795.6	1083.6	1299.6	1320.0
117.5°	265.8	286.2	306.6	311.7	415.4	553.5	622.6	752.6	1012.6	1207.5	1230.2
120°	283.6	302.8	322.0	326.8	421.6	547.9	611.1	729.8	967.3	1145.5	1167.4
122.5°	300.9	320.2	339.6	344.4	430.3	544.9	602.2	709.2	923.1	1083.5	1105.2
125°	327.5	345.1	362.8	367.2	442.3	542.5	592.6	683.5	865.2	1001.4	1021.4
127.5°	349.1	366.9	384.6	389.1	454.3	541.1	584.5	662.5	818.5	935.5	952.4
130°	360.6	379.8	399.0	403.8	463.0	541.9	581.4	650.8	789.7	893.9	909.5
132.5°	372.6	391.7	411.0	415.8	470.1	542.5	578.8	640.9	765.2	858.4	872.4
135°	390.3	407.8	425.2	429.6	477.7	541.9	574.1	626.2	730.3	808.3	820.4
137.5°	408.5	425.8	443.1	447.4	489.3	545.3	573.3	617.4	705.4	771.4	781.2
140°	423.4	439.4	455.3	459.3	496.4	545.9	570.6	608.7	684.7	741.7	750.8
142.5°	435.0	449.7	464.5	468.1	502.3	547.8	570.6	604.0	670.8	720.9	728.9
145°	452.8	465.6	478.5	481.7	510.1	547.9	566.8	594.1	648.8	689.7	695.7
147.5°	470.4	483.0	495.5	498.6	521.3	551.7	566.8	588.3	631.2	663.5	668.4
150°	482.0	493.3	504.6	507.5	527.3	553.6	566.8	584.9	621.3	648.5	652.5
152.5°	494.0	502.6	511.1	513.2	531.1	554.9	566.8	582.3	613.3	636.5	639.6
155°	511.7	518.0	524.4	526.0	539.6	557.7	566.8	579.1	603.7	622.2	624.3
157.5°	524.7	530.9	537.1	538.7	548.0	560.5	566.8	576.3	595.5	609.9	611.3
160°	533.6	538.5	543.3	544.5	551.9	561.9	566.8	575.0	591.4	603.7	604.6
162.5°	542.5	546.1	549.7	550.6	556.1	563.3	566.8	573.7	587.6	598.0	598.8
165°	552.1	555.4	558.6	559.4	561.9	565.1	566.8	571.8	581.7	589.1	590.0
167.5°	561.0	562.5	564.1	564.5	566.5	569.2	570.6	573.9	580.5	585.3	585.7
170°	566.8	568.3	569.9	570.3	570.4	570.5	570.6	573.9	580.5	585.3	585.3
172.5°	569.9	570.3	570.5	570.6	570.6	570.6	570.6	573.3	578.4	582.2	581.9
175°	574.1	574.1	574.1	574.1	573.0	571.4	570.6	572.2	575.5	577.9	577.9
177.5°	574.1	574.1	574.1	574.1	573.2	571.9	571.4	572.7	575.2	577.2	576.8
180°	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	768.2	768.2
2.5°	820.1	815.2
5°	1054.7	1059.7
7.5°	1420.3	1417.9
10°	1766.1	1788.4
12.5°	2018.1	2023.1
15°	2171.2	2181.1
17.5°	2230.5	2233.0
20°	2233.0	2228.1
22.5°	2205.8	2200.9
25°	2173.8	2171.2
27.5°	2144.0	2146.6
30°	2131.7	2139.2
32.5°	2131.7	2144.0
35°	2136.6	2149.0
37.5°	2134.2	2149.0
40°	2124.3	2141.6
42.5°	2097.1	2109.4
45°	2055.1	2070.0
47.5°	2000.8	2010.6
50°	1931.7	1941.5
52.5°	1845.2	1847.6
55°	1741.5	1751.4
57.5°	1630.3	1632.7
60°	1506.7	1514.2
62.5°	1375.9	1375.9
65°	1237.6	1242.5
67.5°	1094.3	1106.6
70°	948.5	951.0
72.5°	805.2	805.2
75°	657.1	659.5
77.5°	516.2	516.2
80°	382.9	385.4
82.5°	264.3	269.3
85°	165.5	165.5
87.5°	76.6	69.2
90°	14.7	14.7
92.5°	58.6	47.0
95°	204.4	169.2
97.5°	489.8	422.7
100°	705.7	625.7
102.5°	918.1	849.6
105°	1188.9	1152.0
107.5°	1366.3	1375.1
110°	1433.8	1472.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1439.9	1498.8
115°	1401.7	1483.4
117.5°	1320.8	1411.4
120°	1255.5	1343.5
122.5°	1192.0	1278.9
125°	1101.4	1181.4
127.5°	1019.9	1087.3
130°	971.8	1034.2
132.5°	928.3	984.1
135°	868.5	916.7
137.5°	820.7	860.0
140°	787.7	824.5
142.5°	760.5	792.2
145°	719.7	743.7
147.5°	688.3	708.2
150°	668.6	684.7
152.5°	651.8	663.9
155°	632.3	640.4
157.5°	617.0	622.6
160°	607.8	611.1
162.5°	601.9	604.9
165°	593.2	596.4
167.5°	587.0	588.4
170°	585.3	585.3
172.5°	580.7	579.5
175°	577.9	577.9
177.5°	575.5	574.1
180°	574.1	574.1



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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	6.40	7.43	7.25	8.30	9.39	19.58	20.61	20.43	21.48	22.57
	3H	7.12	8.04	7.98	8.93	10.05	21.43	22.36	22.29	23.24	24.36
	4H	7.43	8.30	8.30	9.19	10.32	22.09	22.96	22.96	23.85	24.98
	6H	7.69	8.49	8.57	9.39	10.53	22.53	23.33	23.41	24.23	25.37
	8H	7.76	8.53	8.65	9.44	10.59	22.65	23.42	23.54	24.34	25.48
	12H	7.78	8.52	8.68	9.42	10.59	22.73	23.46	23.62	24.37	25.54
4H	2H	13.64	14.51	14.52	15.40	16.53	19.88	20.75	20.75	21.64	22.77
	3H	15.22	15.95	16.11	16.87	18.02	21.94	22.67	22.83	23.59	24.74
	4H	15.32	15.99	16.22	16.91	18.08	22.71	23.38	23.61	24.30	25.47
	6H	15.34	15.92	16.26	16.86	18.04	23.26	23.84	24.18	24.78	25.95
	8H	15.33	15.87	16.24	16.80	17.99	23.43	23.97	24.35	24.90	26.09
	12H	15.29	15.78	16.23	16.73	17.92	23.53	24.02	24.47	24.97	26.16
8H	4H	16.78	17.33	17.70	18.26	19.45	22.79	23.33	23.70	24.26	25.45
	6H	17.03	17.48	17.98	18.46	19.64	23.42	23.87	24.37	24.85	26.03
	8H	17.05	17.45	18.01	18.42	19.62	23.65	24.04	24.60	25.01	26.21
	12H	17.03	17.38	17.99	18.34	19.59	23.80	24.15	24.76	25.11	26.36
12H	4H	16.93	17.42	17.87	18.38	19.57	22.75	23.24	23.69	24.19	25.38
	6H	17.29	17.69	18.25	18.66	19.86	23.41	23.81	24.36	24.77	25.98
	8H	17.37	17.72	18.33	18.68	19.93	23.65	24.00	24.61	24.96	26.21