

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: P936876

Luminaire Tested: SQ4-FB-050U-100D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936876
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-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

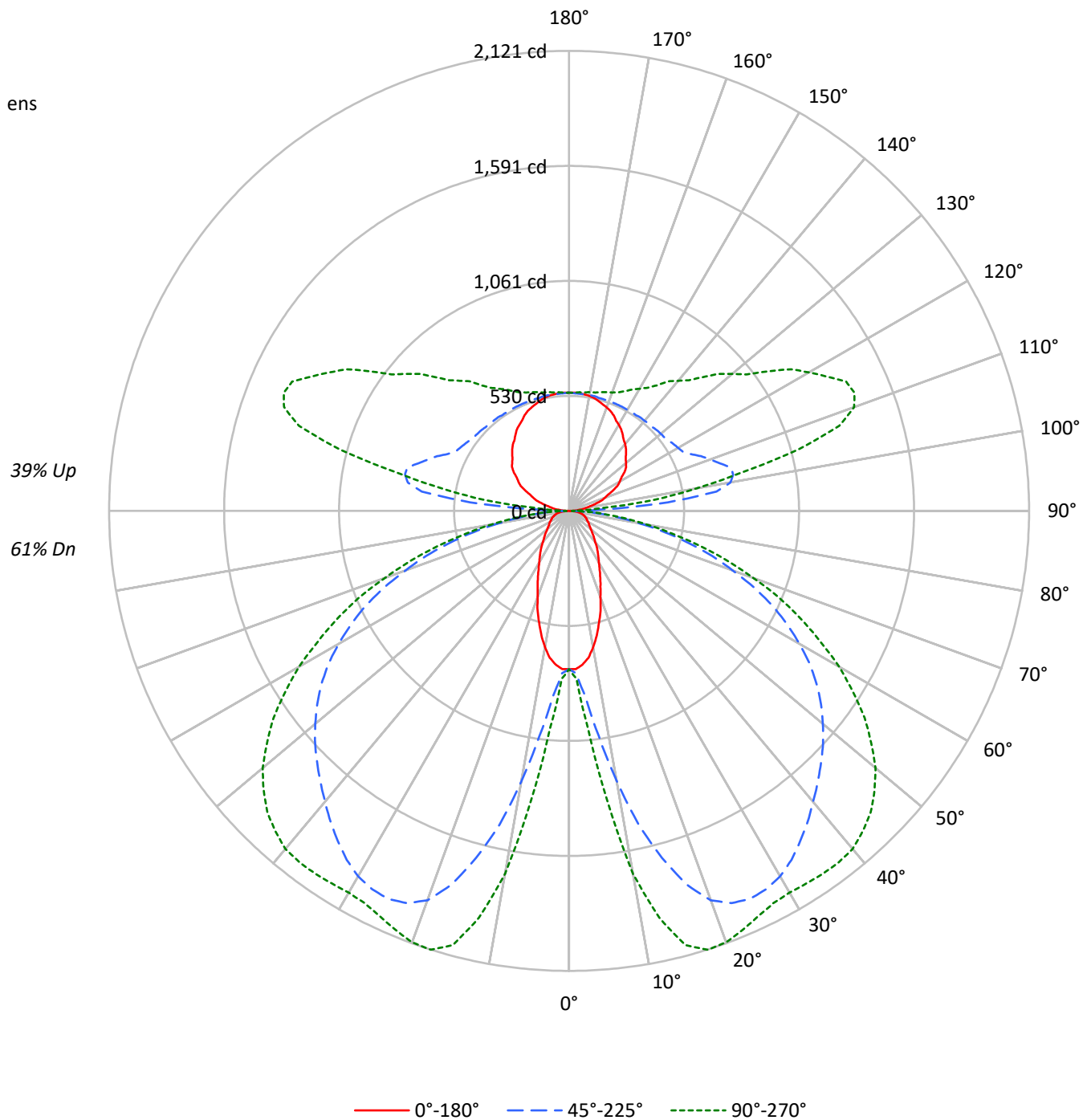
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9183.7 lumens
Efficiency: N/A
Efficacy: 101.6 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 (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	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	61
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°	3386	3386	3386
5°	3308	3914	4551
10°	3001	5705	7546
15°	2550	7453	9111
20°	2076	8637	9286
25°	1732	9038	9097
30°	1461	9095	9080
35°	1291	8945	9314
40°	1125	8748	9557
45°	1019	8604	9595
50°	935	8475	9436
55°	895	8285	9018
60°	916	7922	8358
65°	954	7369	7450
70°	1015	6426	6294
75°	1125	5240	4912
80°	1230	3634	3310
85°	1090	1928	1695

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9595 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.0
10°-20°	418.4	4.6
20°-30°	731.9	8.0
30°-40°	942.1	10.3
40°-50°	1052.3	11.5
50°-60°	1007.9	11.0
60°-70°	798.7	8.7
70°-80°	469.7	5.1
80°-90°	132.6	1.4
90°-100°	265.9	2.9
100°-110°	699.0	7.6
110°-120°	724.8	7.9
120°-130°	581.3	6.3
130°-140°	456.2	5.0
140°-150°	350.1	3.8
150°-160°	252.1	2.7
160°-170°	154.3	1.7
170°-180°	52.1	0.6
0°-30°	1244.7	13.6
0°-40°	2186.8	23.8
0°-60°	4247.0	46.2
0°-90°	5648.0	61.5
90°-120°	1689.6	18.4
90°-150°	3077.2	33.5
90°-180°	3536.0	38.5
0°-180°	9183.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	711	763	859	972	1007	66
15°	533	983	1657	2009	2072	148
25°	340	1115	1974	2060	2063	157
35°	230	1065	1859	1964	2042	144
45°	157	850	1643	1882	1967	122
55°	113	540	1394	1619	1664	103
65°	89	286	1035	1164	1180	88
75°	66	176	568	624	627	69
85°	23	54	141	155	157	25
90°	4	10	28	14	14	5
95°	35	138	458	236	161	39
105°	126	191	773	1173	1094	133
115°	224	272	619	1235	1409	221
125°	311	349	563	951	1122	276
135°	371	408	545	768	871	287
145°	430	458	538	655	706	269
155°	486	500	538	591	608	223
165°	524	532	538	560	567	148
175°	545	545	542	549	549	52
180°	545	545	545	545	545	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8
2.5°	729.8	729.8	734.6	736.9	741.6	743.9	748.6	753.3	767.4	769.7	774.4
5°	711.0	720.4	751.0	762.7	795.6	840.1	858.9	889.4	952.7	971.6	983.3
7.5°	682.9	704.0	779.1	797.9	880.0	997.3	1046.6	1112.3	1213.3	1262.6	1302.4
10°	638.3	682.9	816.7	861.3	995.0	1173.3	1264.9	1356.4	1508.9	1577.0	1602.8
12.5°	589.0	661.7	856.6	917.6	1110.0	1370.5	1480.7	1581.7	1755.3	1846.9	1860.9
15°	532.7	631.3	894.1	983.3	1232.0	1534.7	1656.7	1781.2	1943.0	2008.7	2025.2
17.5°	483.4	607.8	929.3	1023.2	1325.9	1682.6	1807.0	1910.2	2041.6	2086.2	2098.0
20°	422.4	570.3	952.7	1074.7	1424.4	1790.6	1910.2	1990.0	2079.2	2107.3	2112.0
22.5°	377.8	530.3	966.9	1093.6	1490.2	1856.3	1957.2	2020.5	2081.6	2090.9	2093.3
25°	340.3	485.7	964.5	1114.7	1546.5	1896.1	1973.6	2020.5	2055.7	2060.4	2060.4
27.5°	305.0	436.5	955.1	1119.4	1588.7	1905.6	1966.6	1999.4	2015.8	2025.2	2025.2
30°	274.6	389.6	931.6	1110.0	1607.5	1896.1	1945.4	1961.9	1978.3	1992.3	1999.4
32.5°	251.1	345.0	896.4	1091.2	1609.9	1872.7	1907.9	1917.3	1940.7	1973.6	1985.3
35°	230.0	300.4	856.6	1065.4	1595.7	1835.1	1858.6	1868.0	1914.9	1964.2	1980.6
37.5°	208.9	267.6	804.9	1020.8	1574.6	1790.6	1807.0	1823.4	1896.1	1954.8	1973.6
40°	187.7	239.4	743.9	971.6	1541.7	1736.6	1750.6	1776.4	1872.7	1940.7	1959.5
42.5°	171.3	215.9	678.2	919.9	1499.6	1675.6	1696.7	1734.2	1844.5	1917.3	1938.4
45°	157.3	192.4	607.8	849.5	1445.6	1612.2	1642.7	1694.3	1811.6	1882.0	1900.9
47.5°	143.1	176.0	535.0	776.7	1386.9	1548.8	1588.7	1647.4	1767.0	1835.1	1851.6
50°	131.4	159.6	462.3	699.3	1323.6	1480.7	1527.7	1588.7	1710.7	1774.1	1795.2
52.5°	122.0	145.5	394.3	621.9	1250.7	1410.3	1464.3	1527.7	1642.7	1703.7	1717.7
55°	112.6	133.7	335.6	539.7	1175.7	1335.3	1393.9	1455.0	1567.6	1619.2	1628.6
57.5°	108.0	124.4	286.3	462.3	1095.9	1250.7	1316.5	1372.8	1478.4	1518.3	1527.7
60°	100.9	117.3	248.7	396.6	1009.1	1171.0	1227.3	1283.6	1372.8	1405.7	1412.7
62.5°	93.9	112.6	220.6	333.3	919.9	1077.1	1133.4	1185.1	1260.2	1283.6	1293.0
65°	89.2	108.0	199.4	286.3	828.4	978.6	1034.9	1079.5	1140.5	1164.0	1168.7
67.5°	84.4	103.3	183.0	246.4	736.9	880.0	922.3	964.5	1011.4	1034.9	1037.3
70°	77.4	98.6	169.0	218.3	643.0	767.4	802.6	847.2	884.7	896.4	903.5
72.5°	72.7	91.6	159.6	197.1	546.7	659.4	692.3	718.1	751.0	762.7	762.7
75°	65.7	82.1	150.2	176.0	448.3	539.7	567.9	593.7	619.6	624.3	617.2
77.5°	58.7	72.7	129.0	147.9	349.7	427.1	450.6	464.6	485.7	490.4	492.8
80°	49.3	63.4	100.9	115.0	253.4	314.4	330.9	342.6	361.4	361.4	366.1
82.5°	37.6	49.3	72.7	82.1	171.3	215.9	230.0	237.0	248.7	248.7	248.7
85°	23.4	30.5	47.0	54.0	103.3	131.4	140.8	143.1	152.6	154.9	154.9
87.5°	11.7	16.4	30.5	32.9	54.0	68.0	68.0	72.7	72.7	70.4	68.0
90°	3.6	6.6	9.5	10.2	16.1	23.9	27.8	24.7	18.6	13.9	13.9
92.5°	14.7	39.5	64.5	70.7	99.4	137.6	156.6	137.3	98.6	69.5	66.8
95°	35.2	80.7	126.3	137.6	244.4	386.7	457.9	408.7	310.1	236.1	227.8
97.5°	60.7	100.9	141.1	151.1	329.2	566.5	685.3	654.1	591.8	545.1	529.1
100°	80.5	116.9	153.4	162.5	360.1	623.5	755.2	757.5	762.0	765.4	746.4
102.5°	97.4	131.4	165.3	173.9	374.2	641.4	775.0	814.7	894.0	953.5	937.3
105°	125.9	154.7	183.5	190.7	384.8	643.4	772.7	861.7	1039.8	1173.2	1164.4
107.5°	155.2	182.0	208.9	215.6	386.6	614.8	728.8	852.9	1101.2	1287.4	1289.6
110°	174.9	199.2	223.5	229.5	383.8	589.4	692.2	831.0	1108.5	1316.6	1325.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	194.4	217.5	240.6	246.3	383.9	567.3	658.9	800.9	1085.0	1298.0	1312.0
115°	223.7	245.0	266.3	271.6	387.4	541.9	619.0	755.9	1029.5	1234.7	1254.0
117.5°	252.5	271.9	291.3	296.1	394.6	525.9	591.5	715.0	962.0	1147.2	1168.7
120°	269.4	287.6	305.9	310.4	400.5	520.5	580.6	693.4	919.0	1088.2	1109.1
122.5°	285.8	304.2	322.6	327.2	408.8	517.7	572.1	673.7	877.0	1029.4	1050.0
125°	311.2	327.8	344.6	348.8	420.2	515.4	563.0	649.3	821.9	951.4	970.4
127.5°	331.7	348.5	365.4	369.7	431.6	514.1	555.3	629.4	777.6	888.8	904.8
130°	342.6	360.8	379.1	383.6	439.8	514.9	552.3	618.3	750.3	849.2	864.0
132.5°	354.0	372.2	390.5	395.0	446.6	515.4	549.8	608.9	727.0	815.5	828.8
135°	370.8	387.4	404.0	408.1	453.9	514.9	545.4	594.9	693.8	767.9	779.4
137.5°	388.1	404.5	420.9	425.0	464.9	518.1	544.7	586.5	670.2	732.9	742.2
140°	402.3	417.4	432.5	436.4	471.6	518.6	542.1	578.3	650.5	704.6	713.3
142.5°	413.3	427.2	441.2	444.7	477.2	520.5	542.1	573.8	637.3	684.9	692.5
145°	430.1	442.3	454.6	457.6	484.6	520.5	538.5	564.4	616.4	655.3	660.9
147.5°	446.9	458.8	470.7	473.7	495.2	524.1	538.5	558.9	599.7	630.3	635.0
150°	457.9	468.7	479.4	482.1	500.9	526.0	538.5	555.7	590.3	616.1	619.9
152.5°	469.3	477.5	485.6	487.6	504.6	527.2	538.5	553.2	582.6	604.7	607.7
155°	486.1	492.1	498.2	499.7	512.6	529.9	538.5	550.2	573.6	591.1	593.1
157.5°	498.5	504.4	510.2	511.8	520.6	532.5	538.5	547.5	565.7	579.4	580.8
160°	507.0	511.6	516.1	517.3	524.4	533.8	538.5	546.3	561.8	573.6	574.4
162.5°	515.4	518.9	522.2	523.1	528.3	535.1	538.5	545.1	558.3	568.1	568.9
165°	524.5	527.6	530.7	531.5	533.8	536.9	538.5	543.2	552.6	559.7	560.5
167.5°	533.0	534.4	535.9	536.3	538.2	540.8	542.1	545.2	551.4	556.1	556.4
170°	538.5	539.9	541.4	541.8	541.9	542.0	542.1	545.2	551.4	556.1	556.1
172.5°	541.4	541.8	542.0	542.1	542.1	542.1	542.1	544.6	549.5	553.1	552.9
175°	545.4	545.4	545.4	545.4	544.3	542.8	542.1	543.6	546.7	549.1	549.1
177.5°	545.4	545.4	545.4	545.4	544.5	543.4	542.8	544.1	546.5	548.3	548.0
180°	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4	545.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	729.8	729.8
2.5°	779.1	774.4
5°	1002.0	1006.7
7.5°	1349.3	1347.0
10°	1677.9	1699.0
12.5°	1917.3	1922.0
15°	2062.7	2072.1
17.5°	2119.0	2121.4
20°	2121.4	2116.7
22.5°	2095.6	2090.9
25°	2065.1	2062.7
27.5°	2036.9	2039.3
30°	2025.2	2032.3
32.5°	2025.2	2036.9
35°	2029.9	2041.6
37.5°	2027.6	2041.6
40°	2018.2	2034.6
42.5°	1992.3	2004.0
45°	1952.4	1966.6
47.5°	1900.9	1910.2
50°	1835.1	1844.5
52.5°	1753.0	1755.3
55°	1654.4	1663.8
57.5°	1548.8	1551.2
60°	1431.5	1438.6
62.5°	1307.1	1307.1
65°	1175.7	1180.4
67.5°	1039.6	1051.3
70°	901.1	903.5
72.5°	765.0	765.0
75°	624.3	626.6
77.5°	490.4	490.4
80°	363.7	366.1
82.5°	251.1	255.8
85°	157.3	157.3
87.5°	72.7	65.7
90°	13.9	13.9
92.5°	55.7	44.7
95°	194.2	160.7
97.5°	465.3	401.6
100°	670.4	594.4
102.5°	872.2	807.1
105°	1129.4	1094.5
107.5°	1298.0	1306.4
110°	1362.2	1398.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1368.0	1423.9
115°	1331.6	1409.3
117.5°	1254.8	1340.9
120°	1192.8	1276.4
122.5°	1132.5	1215.0
125°	1046.3	1122.3
127.5°	968.9	1033.0
130°	923.3	982.5
132.5°	881.9	934.9
135°	825.1	870.9
137.5°	779.7	817.0
140°	748.3	783.3
142.5°	722.5	752.6
145°	683.8	706.5
147.5°	653.9	672.8
150°	635.2	650.5
152.5°	619.2	630.7
155°	600.7	608.4
157.5°	586.2	591.5
160°	577.5	580.6
162.5°	571.8	574.7
165°	563.5	566.6
167.5°	557.7	559.0
170°	556.1	556.1
172.5°	551.7	550.6
175°	549.1	549.1
177.5°	546.7	545.4
180°	545.4	545.4



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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	6.23	7.25	7.07	8.12	9.22	19.41	20.43	20.25	21.30	22.40
	3H	6.94	7.87	7.80	8.75	9.87	21.26	22.18	22.11	23.06	24.18
	4H	7.25	8.12	8.12	9.01	10.14	21.91	22.78	22.78	23.67	24.80
	6H	7.51	8.32	8.39	9.21	10.35	22.35	23.16	23.23	24.05	25.19
	8H	7.58	8.35	8.47	9.27	10.41	22.47	23.24	23.37	24.16	25.30
	12H	7.61	8.34	8.50	9.25	10.42	22.55	23.28	23.45	24.19	25.36
4H	2H	13.46	14.34	14.34	15.22	16.35	19.70	20.57	20.57	21.46	22.59
	3H	15.04	15.78	15.93	16.70	17.84	21.76	22.49	22.65	23.41	24.56
	4H	15.15	15.82	16.05	16.73	17.90	22.53	23.20	23.43	24.12	25.29
	6H	15.17	15.75	16.08	16.69	17.86	23.08	23.66	24.00	24.60	25.77
	8H	15.15	15.69	16.07	16.62	17.81	23.25	23.79	24.17	24.73	25.91
	12H	15.11	15.60	16.05	16.55	17.75	23.35	23.84	24.29	24.79	25.99
8H	4H	16.60	17.15	17.52	18.08	19.27	22.61	23.15	23.53	24.08	25.27
	6H	16.85	17.31	17.80	18.28	19.47	23.24	23.70	24.19	24.67	25.86
	8H	16.88	17.27	17.83	18.24	19.44	23.47	23.87	24.42	24.83	26.04
	12H	16.85	17.20	17.81	18.16	19.41	23.62	23.97	24.58	24.93	26.18
12H	4H	16.76	17.25	17.69	18.20	19.39	22.57	23.06	23.51	24.01	25.20
	6H	17.12	17.52	18.07	18.48	19.68	23.23	23.63	24.18	24.60	25.80
	8H	17.19	17.54	18.15	18.50	19.76	23.47	23.82	24.43	24.78	26.03