

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: P936865

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936865
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-93050-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

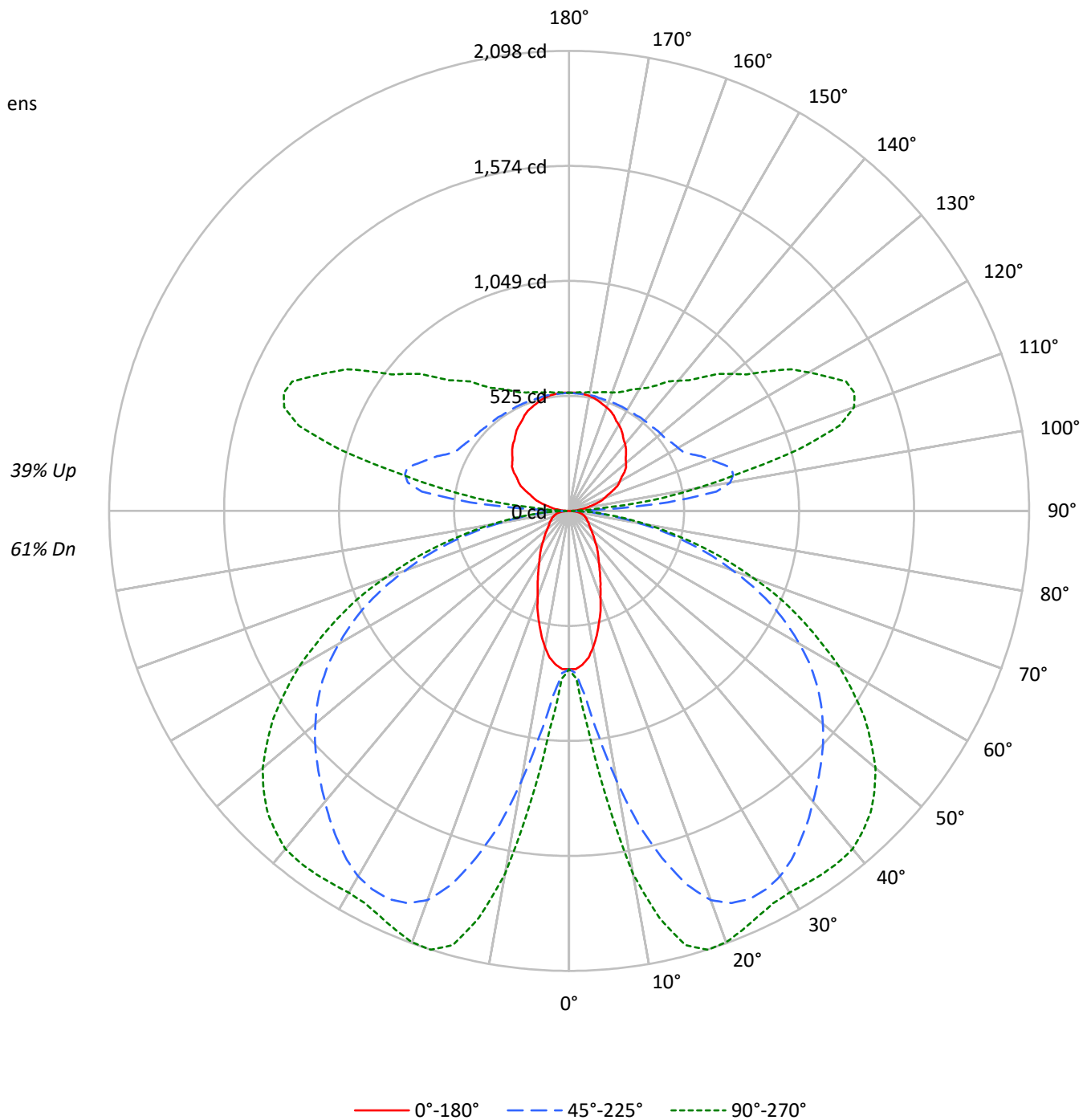
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9083.4 lumens
Efficiency: N/A
Efficacy: 100.5 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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
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°	3349	3349	3349
5°	3272	3871	4502
10°	2968	5643	7463
15°	2522	7372	9012
20°	2053	8543	9184
25°	1713	8940	8998
30°	1445	8996	8981
35°	1277	8847	9213
40°	1113	8653	9453
45°	1008	8511	9490
50°	925	8382	9333
55°	885	8195	8919
60°	906	7835	8266
65°	943	7288	7368
70°	1005	6356	6225
75°	1113	5182	4858
80°	1215	3594	3273
85°	1081	1907	1675

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9490 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	1.0
10°-20°	413.8	4.6
20°-30°	723.9	8.0
30°-40°	931.8	10.3
40°-50°	1040.8	11.5
50°-60°	996.9	11.0
60°-70°	790.0	8.7
70°-80°	464.6	5.1
80°-90°	131.1	1.4
90°-100°	263.0	2.9
100°-110°	691.3	7.6
110°-120°	716.8	7.9
120°-130°	575.0	6.3
130°-140°	451.2	5.0
140°-150°	346.3	3.8
150°-160°	249.4	2.7
160°-170°	152.6	1.7
170°-180°	51.6	0.6
0°-30°	1231.1	13.6
0°-40°	2162.9	23.8
0°-60°	4200.6	46.2
0°-90°	5586.3	61.5
90°-120°	1671.1	18.4
90°-150°	3043.6	33.5
90°-180°	3497.0	38.5
0°-180°	9083.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	722	722	722	722	722	
5°	703	754	850	961	996	65
15°	527	972	1639	1987	2050	147
25°	337	1102	1952	2038	2040	155
35°	228	1054	1838	1943	2019	142
45°	156	840	1625	1862	1945	120
55°	111	534	1379	1602	1646	102
65°	88	283	1024	1151	1168	87
75°	65	174	562	617	620	68
85°	23	53	139	153	156	25
90°	4	10	28	14	14	5
95°	35	136	453	234	159	39
105°	124	189	764	1160	1082	132
115°	221	269	612	1221	1394	218
125°	308	345	557	941	1110	273
135°	367	404	540	760	861	284
145°	425	453	533	648	699	267
155°	481	494	533	585	602	221
165°	519	526	533	554	560	146
175°	540	540	536	543	543	51
180°	540	540	540	540	540	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9
2.5°	721.9	721.9	726.5	728.8	733.5	735.8	740.4	745.1	759.0	761.3	766.0
5°	703.3	712.6	742.8	754.4	786.9	831.0	849.5	879.7	942.3	960.9	972.5
7.5°	675.4	696.3	770.6	789.2	870.4	986.4	1035.2	1100.2	1200.0	1248.8	1288.2
10°	631.3	675.4	807.8	851.9	984.1	1160.5	1251.1	1341.6	1492.4	1559.8	1585.2
12.5°	582.6	654.5	847.2	907.5	1097.9	1355.5	1464.6	1564.4	1736.1	1826.7	1840.6
15°	526.9	624.4	884.4	972.5	1218.6	1518.0	1638.6	1761.7	1921.8	1986.8	2003.1
17.5°	478.1	601.2	919.1	1012.0	1311.4	1664.2	1787.3	1889.3	2019.3	2063.4	2075.1
20°	417.8	564.0	942.3	1063.0	1408.9	1771.0	1889.3	1968.3	2056.5	2084.3	2089.0
22.5°	373.7	524.5	956.3	1081.6	1473.9	1836.0	1935.8	1998.4	2058.8	2068.0	2070.4
25°	336.6	480.4	953.9	1102.5	1529.6	1875.4	1952.0	1998.4	2033.3	2037.9	2037.9
27.5°	301.7	431.7	944.7	1107.2	1571.4	1884.7	1945.1	1977.6	1993.8	2003.1	2003.1
30°	271.6	385.3	921.4	1097.9	1589.9	1875.4	1924.2	1940.4	1956.7	1970.6	1977.6
32.5°	248.4	341.2	886.6	1079.3	1592.3	1852.2	1887.0	1896.3	1919.5	1952.0	1963.6
35°	227.5	297.1	847.2	1053.8	1578.3	1815.1	1838.3	1847.6	1894.0	1942.7	1959.0
37.5°	206.6	264.6	796.1	1009.7	1557.4	1771.0	1787.3	1803.5	1875.4	1933.4	1952.0
40°	185.7	236.8	735.8	960.9	1524.9	1717.6	1731.5	1757.0	1852.2	1919.5	1938.1
42.5°	169.4	213.5	670.8	909.8	1483.2	1657.3	1678.2	1715.2	1824.3	1896.3	1917.2
45°	155.5	190.3	601.2	840.2	1429.8	1594.6	1624.8	1675.8	1791.8	1861.5	1880.1
47.5°	141.6	174.1	529.2	768.2	1371.7	1531.9	1571.4	1629.4	1747.7	1815.1	1831.3
50°	130.0	157.8	457.2	691.7	1309.1	1464.6	1511.0	1571.4	1692.0	1754.8	1775.6
52.5°	120.7	143.9	390.0	615.1	1237.1	1394.9	1448.3	1511.0	1624.8	1685.1	1699.0
55°	111.4	132.3	331.9	533.8	1162.9	1320.7	1378.7	1439.1	1550.5	1601.5	1610.8
57.5°	106.8	123.0	283.2	457.2	1083.9	1237.1	1302.1	1357.9	1462.3	1501.7	1511.0
60°	99.8	116.0	246.0	392.2	998.1	1158.2	1213.9	1269.6	1357.9	1390.4	1397.3
62.5°	92.8	111.4	218.2	329.6	909.8	1065.4	1121.1	1172.2	1246.4	1269.6	1278.9
65°	88.2	106.8	197.3	283.2	819.4	967.9	1023.6	1067.7	1128.0	1151.3	1155.9
67.5°	83.5	102.1	181.0	243.7	728.8	870.4	912.2	953.9	1000.4	1023.6	1025.9
70°	76.6	97.5	167.1	215.9	636.0	759.0	793.8	837.9	875.1	886.6	893.6
72.5°	71.9	90.6	157.8	195.0	540.8	652.2	684.7	710.3	742.8	754.4	754.4
75°	65.0	81.2	148.5	174.1	443.4	533.8	561.7	587.2	612.8	617.4	610.4
77.5°	58.1	71.9	127.6	146.2	345.9	422.5	445.6	459.5	480.4	485.1	487.5
80°	48.7	62.7	99.8	113.7	250.7	311.0	327.3	338.8	357.5	357.5	362.1
82.5°	37.2	48.7	71.9	81.2	169.4	213.5	227.5	234.4	246.0	246.0	246.0
85°	23.2	30.2	46.5	53.4	102.1	130.0	139.3	141.6	150.9	153.2	153.2
87.5°	11.6	16.2	30.2	32.5	53.4	67.3	67.3	71.9	71.9	69.6	67.3
90°	3.6	6.5	9.4	10.1	15.9	23.6	27.5	24.4	18.4	13.8	13.8
92.5°	14.5	39.1	63.8	69.9	98.3	136.0	154.9	135.8	97.5	68.8	66.0
95°	34.8	79.8	124.9	136.1	241.7	382.5	452.9	404.2	306.7	233.5	225.3
97.5°	60.1	99.8	139.6	149.5	325.6	560.4	677.8	647.0	585.3	539.1	523.3
100°	79.7	115.7	151.7	160.7	356.2	616.7	746.9	749.2	753.7	757.0	738.2
102.5°	96.3	130.0	163.5	172.0	370.1	634.4	766.5	805.8	884.3	943.1	927.0
105°	124.5	153.0	181.5	188.7	380.6	636.4	764.3	852.3	1028.4	1160.4	1151.7
107.5°	153.5	180.1	206.6	213.3	382.4	608.0	720.8	843.6	1089.2	1273.4	1275.5
110°	173.0	197.0	221.1	227.0	379.6	582.9	684.6	821.9	1096.4	1302.3	1311.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	192.3	215.1	237.9	243.6	379.7	561.1	651.7	792.1	1073.1	1283.8	1297.7
115°	221.2	242.3	263.4	268.7	383.2	535.9	612.3	747.6	1018.2	1221.2	1240.3
117.5°	249.8	268.9	288.1	292.9	390.3	520.1	585.0	707.2	951.5	1134.7	1155.9
120°	266.5	284.5	302.6	307.1	396.1	514.9	574.2	685.8	909.0	1076.4	1097.0
122.5°	282.7	300.9	319.1	323.7	404.4	512.0	565.9	666.4	867.4	1018.1	1038.5
125°	307.8	324.3	340.9	345.0	415.6	509.8	556.8	642.2	813.0	941.0	959.8
127.5°	328.0	344.7	361.4	365.6	426.9	508.4	549.2	622.5	769.1	879.1	894.9
130°	338.8	356.9	374.9	379.4	435.0	509.2	546.3	611.6	742.1	839.9	854.6
132.5°	350.1	368.1	386.2	390.7	441.7	509.8	543.8	602.3	719.1	806.6	819.7
135°	366.8	383.2	399.5	403.7	448.9	509.2	539.5	588.4	686.2	759.6	770.9
137.5°	383.8	400.1	416.3	420.4	459.8	512.4	538.7	580.1	662.9	724.9	734.1
140°	397.9	412.9	427.8	431.6	466.5	512.9	536.2	571.9	643.4	696.9	705.5
142.5°	408.8	422.6	436.4	439.9	472.0	514.8	536.2	567.6	630.4	677.4	684.9
145°	425.4	437.5	449.6	452.6	479.3	514.9	532.6	558.2	609.6	648.1	653.7
147.5°	442.0	453.8	465.6	468.5	489.8	518.4	532.6	552.8	593.1	623.4	628.1
150°	452.9	463.6	474.2	476.8	495.4	520.2	532.6	549.6	583.8	609.4	613.1
152.5°	464.2	472.3	480.3	482.3	499.1	521.4	532.6	547.2	576.3	598.1	601.0
155°	480.8	486.8	492.7	494.2	507.0	524.1	532.6	544.2	567.3	584.7	586.6
157.5°	493.1	498.9	504.7	506.2	514.9	526.7	532.6	541.6	559.6	573.1	574.4
160°	501.4	506.0	510.5	511.6	518.6	527.9	532.6	540.3	555.7	567.3	568.1
162.5°	509.8	513.2	516.5	517.4	522.5	529.3	532.6	539.1	552.2	561.9	562.6
165°	518.8	521.9	524.9	525.7	527.9	531.0	532.6	537.3	546.6	553.6	554.4
167.5°	527.2	528.6	530.1	530.4	532.3	534.9	536.2	539.3	545.4	550.0	550.3
170°	532.6	534.0	535.5	535.9	535.9	536.1	536.2	539.3	545.4	550.0	550.0
172.5°	535.5	535.9	536.1	536.2	536.2	536.2	536.2	538.7	543.5	547.1	546.8
175°	539.5	539.5	539.5	539.5	538.4	536.9	536.2	537.7	540.8	543.1	543.1
177.5°	539.5	539.5	539.5	539.5	538.6	537.4	536.9	538.1	540.5	542.4	542.0
180°	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	721.9	721.9
2.5°	770.6	766.0
5°	991.1	995.7
7.5°	1334.6	1332.3
10°	1659.5	1680.5
12.5°	1896.3	1901.0
15°	2040.2	2049.5
17.5°	2095.9	2098.3
20°	2098.3	2093.6
22.5°	2072.7	2068.0
25°	2042.6	2040.2
27.5°	2014.6	2017.0
30°	2003.1	2010.1
32.5°	2003.1	2014.6
35°	2007.7	2019.3
37.5°	2005.4	2019.3
40°	1996.1	2012.4
42.5°	1970.6	1982.1
45°	1931.1	1945.1
47.5°	1880.1	1889.3
50°	1815.1	1824.3
52.5°	1733.9	1736.1
55°	1636.4	1645.7
57.5°	1531.9	1534.2
60°	1415.8	1422.8
62.5°	1292.9	1292.9
65°	1162.9	1167.5
67.5°	1028.2	1039.8
70°	891.3	893.6
72.5°	756.7	756.7
75°	617.4	619.7
77.5°	485.1	485.1
80°	359.8	362.1
82.5°	248.4	253.0
85°	155.5	155.5
87.5°	71.9	65.0
90°	13.8	13.8
92.5°	55.1	44.2
95°	192.1	159.0
97.5°	460.2	397.2
100°	663.1	587.9
102.5°	862.7	798.3
105°	1117.1	1082.5
107.5°	1283.8	1292.2
110°	1347.3	1383.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1353.0	1408.4
115°	1317.1	1393.9
117.5°	1241.1	1326.2
120°	1179.7	1262.5
122.5°	1120.1	1201.7
125°	1034.9	1110.1
127.5°	958.3	1021.7
130°	913.2	971.8
132.5°	872.2	924.7
135°	816.1	861.3
137.5°	771.1	808.1
140°	740.1	774.7
142.5°	714.6	744.4
145°	676.3	698.8
147.5°	646.8	665.5
150°	628.2	643.4
152.5°	612.4	623.9
155°	594.2	601.7
157.5°	579.8	585.0
160°	571.2	574.2
162.5°	565.5	568.4
165°	557.4	560.4
167.5°	551.6	552.9
170°	550.0	550.0
172.5°	545.7	544.5
175°	543.1	543.1
177.5°	540.8	539.5
180°	539.5	539.5



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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	6.19	7.21	7.03	8.09	9.18	19.37	20.39	20.21	21.26	22.36
	3H	6.91	7.83	7.76	8.71	9.83	21.22	22.14	22.07	23.02	24.14
	4H	7.21	8.09	8.08	8.97	10.10	21.87	22.74	22.74	23.63	24.76
	6H	7.47	8.28	8.35	9.17	10.32	22.31	23.12	23.19	24.01	25.16
	8H	7.54	8.31	8.44	9.23	10.37	22.44	23.21	23.33	24.12	25.26
	12H	7.57	8.30	8.47	9.21	10.38	22.51	23.24	23.41	24.15	25.32
4H	2H	13.42	14.30	14.30	15.18	16.31	19.66	20.53	20.54	21.42	22.55
	3H	15.01	15.74	15.89	16.66	17.80	21.72	22.45	22.61	23.37	24.52
	4H	15.11	15.78	16.01	16.69	17.86	22.50	23.16	23.40	24.08	25.25
	6H	15.13	15.71	16.04	16.65	17.82	23.04	23.62	23.96	24.56	25.74
	8H	15.11	15.65	16.03	16.59	17.77	23.21	23.75	24.13	24.69	25.87
	12H	15.07	15.56	16.01	16.52	17.71	23.31	23.80	24.25	24.75	25.95
8H	4H	16.57	17.11	17.48	18.04	19.23	22.57	23.11	23.49	24.05	25.23
	6H	16.82	17.27	17.76	18.24	19.43	23.21	23.66	24.15	24.63	25.82
	8H	16.84	17.24	17.79	18.20	19.40	23.43	23.83	24.38	24.79	26.00
	12H	16.81	17.16	17.77	18.12	19.38	23.58	23.93	24.54	24.89	26.14
12H	4H	16.72	17.21	17.66	18.16	19.35	22.53	23.02	23.47	23.97	25.17
	6H	17.08	17.48	18.03	18.44	19.65	23.19	23.59	24.15	24.56	25.76
	8H	17.16	17.51	18.11	18.47	19.72	23.43	23.78	24.39	24.74	25.99