

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: P936872

Luminaire Tested: SQ4-FB-050U-100D-935-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936872
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-935-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

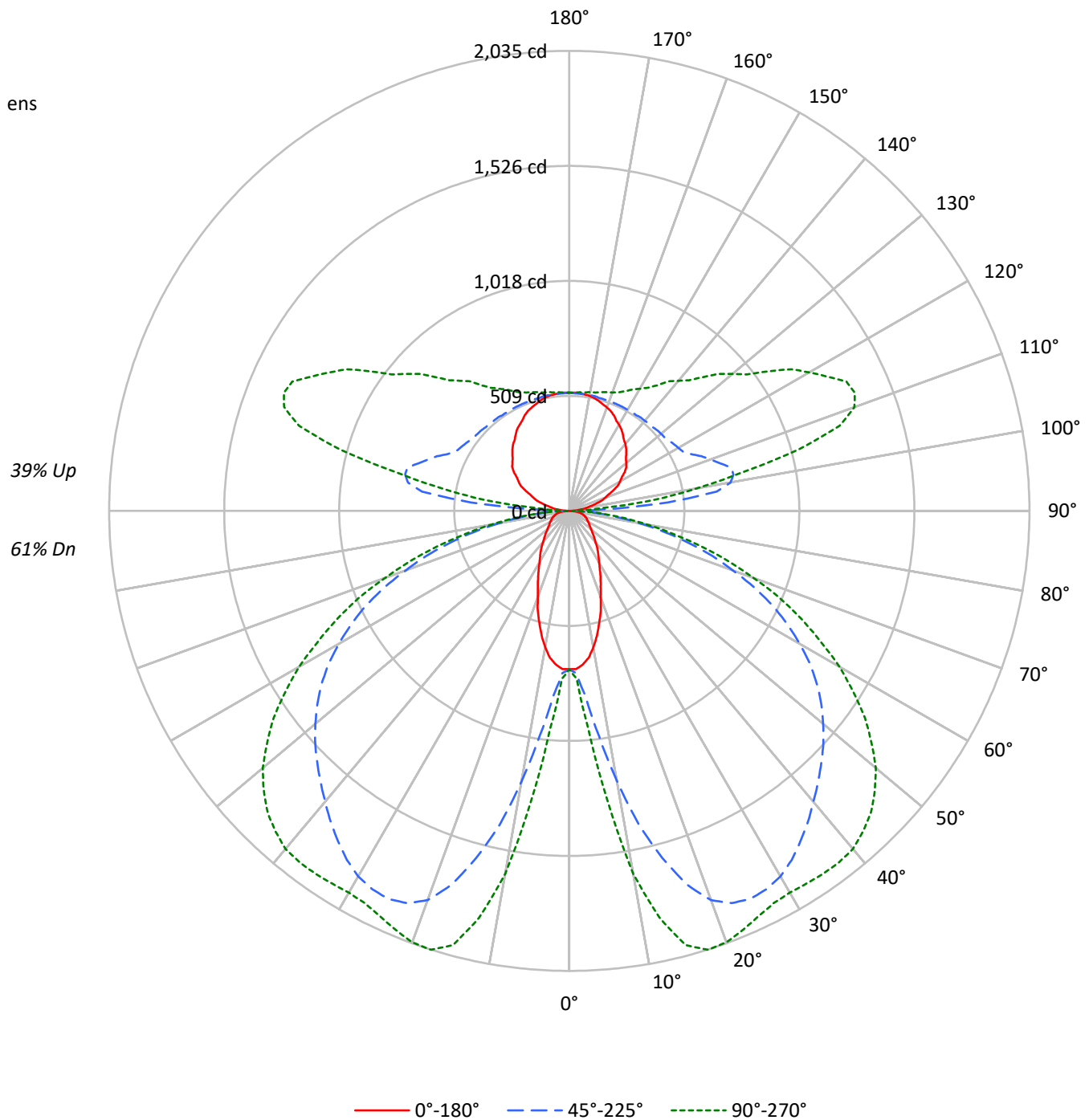
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8811.4 lumens
Efficiency: N/A
Efficacy: 97.5 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				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°	3249	3249	3249
5°	3174	3755	4367
10°	2879	5474	7240
15°	2447	7151	8742
20°	1992	8287	8909
25°	1662	8672	8728
30°	1401	8727	8712
35°	1239	8582	8937
40°	1079	8393	9170
45°	978	8256	9206
50°	897	8132	9053
55°	858	7950	8652
60°	879	7600	8018
65°	914	7070	7148
70°	974	6165	6038
75°	1079	5027	4713
80°	1180	3487	3176
85°	1048	1850	1626

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9206 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	1.0
10°-20°	401.4	4.6
20°-30°	702.2	8.0
30°-40°	903.9	10.3
40°-50°	1009.7	11.5
50°-60°	967.0	11.0
60°-70°	766.4	8.7
70°-80°	450.6	5.1
80°-90°	127.2	1.4
90°-100°	255.1	2.9
100°-110°	670.6	7.6
110°-120°	695.4	7.9
120°-130°	557.8	6.3
130°-140°	437.7	5.0
140°-150°	335.9	3.8
150°-160°	241.9	2.7
160°-170°	148.0	1.7
170°-180°	50.0	0.6
0°-30°	1194.2	13.6
0°-40°	2098.1	23.8
0°-60°	4074.8	46.2
0°-90°	5419.0	61.5
90°-120°	1621.1	18.4
90°-150°	2952.4	33.5
90°-180°	3392.0	38.5
0°-180°	8811.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	682	732	824	932	966	63
15°	511	943	1590	1927	1988	142
25°	326	1070	1894	1977	1979	150
35°	221	1022	1783	1884	1959	138
45°	151	815	1576	1806	1887	117
55°	108	518	1337	1554	1596	98
65°	86	275	993	1117	1133	85
75°	63	169	545	599	601	66
85°	22	52	135	149	151	24
90°	4	10	27	13	13	4
95°	34	132	439	226	154	37
105°	121	183	741	1126	1050	128
115°	215	261	594	1185	1352	212
125°	298	335	540	913	1077	265
135°	356	392	523	737	836	275
145°	413	439	517	629	678	259
155°	466	479	517	567	584	214
165°	503	510	517	537	544	142
175°	523	523	520	527	527	50
180°	523	523	523	523	523	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3
2.5°	700.3	700.3	704.8	707.0	711.5	713.7	718.2	722.8	736.3	738.5	743.0
5°	682.2	691.2	720.5	731.8	763.3	806.1	824.1	853.4	914.1	932.2	943.4
7.5°	655.2	675.5	747.5	765.5	844.3	956.9	1004.2	1067.2	1164.1	1211.4	1249.6
10°	612.4	655.2	783.6	826.4	954.7	1125.7	1213.6	1301.4	1447.7	1513.1	1537.8
12.5°	565.1	634.9	821.8	880.4	1065.0	1314.9	1420.7	1517.6	1684.1	1772.0	1785.5
15°	511.1	605.7	857.9	943.4	1182.1	1472.5	1589.6	1708.9	1864.3	1927.3	1943.1
17.5°	463.8	583.2	891.6	981.7	1272.1	1614.4	1733.7	1832.7	1958.8	2001.6	2012.9
20°	405.3	547.2	914.1	1031.2	1366.7	1718.0	1832.7	1909.3	1994.9	2021.9	2026.4
22.5°	362.5	508.8	927.7	1049.2	1429.7	1781.0	1877.8	1938.6	1997.2	2006.1	2008.4
25°	326.5	466.0	925.4	1069.5	1483.8	1819.3	1893.6	1938.6	1972.4	1976.9	1976.9
27.5°	292.7	418.8	916.4	1074.0	1524.3	1828.3	1886.8	1918.4	1934.1	1943.1	1943.1
30°	263.4	373.8	893.8	1065.0	1542.3	1819.3	1866.6	1882.3	1898.1	1911.5	1918.4
32.5°	240.9	331.0	860.1	1046.9	1544.6	1796.8	1830.5	1839.6	1862.0	1893.6	1904.8
35°	220.7	288.2	821.8	1022.2	1531.0	1760.7	1783.2	1792.3	1837.3	1884.5	1900.3
37.5°	200.4	256.7	772.3	979.5	1510.8	1718.0	1733.7	1749.5	1819.3	1875.5	1893.6
40°	180.1	229.7	713.7	932.2	1479.2	1666.2	1679.6	1704.4	1796.8	1862.0	1880.0
42.5°	164.4	207.1	650.7	882.6	1438.8	1607.6	1627.9	1663.9	1769.7	1839.6	1859.8
45°	150.9	184.6	583.2	815.0	1387.0	1546.8	1576.1	1625.6	1738.2	1805.7	1823.8
47.5°	137.3	168.9	513.3	745.2	1330.7	1486.1	1524.3	1580.6	1695.4	1760.7	1776.5
50°	126.1	153.1	443.6	670.9	1269.9	1420.7	1465.8	1524.3	1641.4	1702.2	1722.4
52.5°	117.1	139.6	378.3	596.7	1200.0	1353.1	1404.9	1465.8	1576.1	1634.6	1648.1
55°	108.0	128.3	322.0	517.8	1128.0	1281.2	1337.4	1396.0	1504.0	1553.5	1562.6
57.5°	103.6	119.4	274.7	443.6	1051.5	1200.0	1263.1	1317.2	1418.5	1456.7	1465.8
60°	96.8	112.5	238.6	380.5	968.2	1123.5	1177.5	1231.6	1317.2	1348.7	1355.4
62.5°	90.1	108.0	211.6	319.8	882.6	1033.5	1087.5	1137.1	1209.1	1231.6	1240.6
65°	85.5	103.6	191.4	274.7	794.8	938.9	992.9	1035.7	1094.2	1116.8	1121.3
67.5°	81.0	99.1	175.6	236.4	707.0	844.3	884.9	925.4	970.4	992.9	995.2
70°	74.3	94.6	162.1	209.4	616.9	736.3	770.0	812.8	848.8	860.1	866.8
72.5°	69.8	87.8	153.1	189.1	524.6	632.7	664.2	689.0	720.5	731.8	731.8
75°	63.0	78.8	144.1	168.9	430.1	517.8	544.9	569.6	594.4	599.0	592.1
77.5°	56.3	69.8	123.8	141.9	335.5	409.8	432.3	445.8	466.0	470.6	472.9
80°	47.3	60.8	96.8	110.3	243.2	301.7	317.5	328.7	346.8	346.8	351.3
82.5°	36.0	47.3	69.8	78.8	164.4	207.1	220.7	227.4	238.6	238.6	238.6
85°	22.5	29.3	45.1	51.8	99.1	126.1	135.1	137.3	146.4	148.6	148.6
87.5°	11.2	15.8	29.3	31.5	51.8	65.3	65.3	69.8	69.8	67.6	65.3
90°	3.5	6.3	9.1	9.8	15.4	22.9	26.7	23.7	17.8	13.4	13.4
92.5°	14.1	37.9	61.9	67.8	95.3	132.0	150.3	131.7	94.6	66.7	64.1
95°	33.7	77.4	121.2	132.1	234.5	371.0	439.4	392.1	297.5	226.5	218.5
97.5°	58.3	96.8	135.4	145.0	315.8	543.6	657.5	627.6	567.8	523.0	507.6
100°	77.3	112.2	147.1	155.9	345.5	598.2	724.5	726.8	731.1	734.3	716.1
102.5°	93.5	126.1	158.6	166.8	359.0	615.4	743.5	781.6	857.8	914.9	899.3
105°	120.8	148.4	176.1	183.0	369.2	617.4	741.4	826.8	997.6	1125.7	1117.2
107.5°	148.9	174.7	200.4	206.9	371.0	589.8	699.2	818.3	1056.6	1235.2	1237.3
110°	167.8	191.1	214.4	220.2	368.2	565.5	664.1	797.3	1063.6	1263.3	1272.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	186.5	208.7	230.8	236.3	368.3	544.3	632.2	768.4	1041.0	1245.4	1258.8
115°	214.6	235.1	255.5	260.6	371.7	519.9	593.9	725.2	987.7	1184.6	1203.2
117.5°	242.3	260.9	279.5	284.1	378.6	504.6	567.5	686.0	923.0	1100.7	1121.3
120°	258.5	276.0	293.5	297.9	384.3	499.4	557.0	665.2	881.7	1044.1	1064.1
122.5°	274.3	291.9	309.5	314.0	392.3	496.7	548.9	646.4	841.4	987.6	1007.4
125°	298.5	314.6	330.7	334.7	403.2	494.5	540.2	623.0	788.6	912.8	931.1
127.5°	318.2	334.4	350.6	354.7	414.1	493.2	532.8	603.9	746.1	852.8	868.1
130°	328.7	346.2	363.7	368.1	422.0	494.0	529.9	593.2	719.9	814.8	829.0
132.5°	339.6	357.1	374.6	379.0	428.5	494.5	527.6	584.2	697.5	782.5	795.2
135°	355.8	371.7	387.6	391.6	435.5	494.0	523.3	570.8	665.7	736.8	747.8
137.5°	372.3	388.1	403.8	407.8	446.0	497.1	522.6	562.7	643.0	703.2	712.1
140°	386.0	400.5	415.0	418.7	452.5	497.6	520.1	554.8	624.1	676.1	684.4
142.5°	396.5	409.9	423.4	426.7	457.9	499.4	520.1	550.6	611.5	657.1	664.4
145°	412.7	424.4	436.1	439.0	464.9	499.4	516.7	541.5	591.4	628.7	634.1
147.5°	428.8	440.2	451.6	454.5	475.2	502.9	516.7	536.2	575.4	604.7	609.3
150°	439.4	449.7	460.0	462.6	480.6	504.6	516.7	533.2	566.3	591.1	594.8
152.5°	450.3	458.1	465.9	467.8	484.1	505.8	516.7	530.8	559.0	580.2	583.0
155°	466.4	472.2	478.0	479.4	491.9	508.4	516.7	527.9	550.3	567.2	569.1
157.5°	478.3	483.9	489.6	491.0	499.5	510.9	516.7	525.3	542.8	555.9	557.2
160°	486.4	490.8	495.2	496.3	503.1	512.1	516.7	524.2	539.1	550.3	551.1
162.5°	494.5	497.8	501.1	501.9	506.9	513.4	516.7	523.0	535.7	545.1	545.8
165°	503.3	506.3	509.2	509.9	512.1	515.1	516.7	521.2	530.2	537.0	537.8
167.5°	511.4	512.7	514.2	514.5	516.4	518.9	520.1	523.1	529.1	533.5	533.9
170°	516.7	518.0	519.5	519.8	519.9	520.1	520.1	523.1	529.1	533.5	533.5
172.5°	519.5	519.8	520.1	520.1	520.1	520.1	520.1	522.5	527.2	530.7	530.5
175°	523.3	523.3	523.3	523.3	522.3	520.8	520.1	521.6	524.6	526.8	526.8
177.5°	523.3	523.3	523.3	523.3	522.4	521.3	520.8	522.0	524.3	526.1	525.8
180°	523.3	523.3	523.3	523.3	523.3	523.3	523.3	523.3	523.3	523.3	523.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	700.3	700.3
2.5°	747.5	743.0
5°	961.4	965.9
7.5°	1294.6	1292.4
10°	1609.9	1630.1
12.5°	1839.6	1844.1
15°	1979.1	1988.1
17.5°	2033.1	2035.4
20°	2035.4	2030.9
22.5°	2010.6	2006.1
25°	1981.4	1979.1
27.5°	1954.3	1956.6
30°	1943.1	1949.9
32.5°	1943.1	1954.3
35°	1947.6	1958.8
37.5°	1945.4	1958.8
40°	1936.3	1952.1
42.5°	1911.5	1922.8
45°	1873.3	1886.8
47.5°	1823.8	1832.7
50°	1760.7	1769.7
52.5°	1681.9	1684.1
55°	1587.4	1596.4
57.5°	1486.1	1488.3
60°	1373.4	1380.2
62.5°	1254.1	1254.1
65°	1128.0	1132.6
67.5°	997.4	1008.7
70°	864.6	866.8
72.5°	734.0	734.0
75°	599.0	601.2
77.5°	470.6	470.6
80°	349.0	351.3
82.5°	240.9	245.5
85°	150.9	150.9
87.5°	69.8	63.0
90°	13.4	13.4
92.5°	53.4	42.9
95°	186.3	154.2
97.5°	446.4	385.3
100°	643.3	570.3
102.5°	836.8	774.4
105°	1083.7	1050.1
107.5°	1245.4	1253.5
110°	1307.0	1342.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1312.5	1366.2
115°	1277.7	1352.1
117.5°	1204.0	1286.5
120°	1144.4	1224.7
122.5°	1086.6	1165.7
125°	1003.9	1076.8
127.5°	929.6	991.1
130°	885.8	942.7
132.5°	846.1	897.0
135°	791.7	835.6
137.5°	748.1	783.9
140°	718.0	751.5
142.5°	693.2	722.1
145°	656.0	677.9
147.5°	627.4	645.6
150°	609.4	624.1
152.5°	594.1	605.2
155°	576.4	583.7
157.5°	562.4	567.5
160°	554.1	557.0
162.5°	548.6	551.4
165°	540.7	543.7
167.5°	535.1	536.3
170°	533.5	533.5
172.5°	529.3	528.2
175°	526.8	526.8
177.5°	524.6	523.3
180°	523.3	523.3



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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	6.08	7.11	6.93	7.98	9.07	19.26	20.29	20.10	21.16	22.25
	3H	6.80	7.72	7.66	8.60	9.72	21.11	22.04	21.97	22.92	24.04
	4H	7.11	7.98	7.98	8.87	10.00	21.77	22.64	22.64	23.53	24.66
	6H	7.37	8.17	8.25	9.07	10.21	22.20	23.01	23.09	23.91	25.05
	8H	7.44	8.21	8.33	9.12	10.26	22.33	23.10	23.22	24.01	25.16
	12H	7.46	8.20	8.36	9.10	10.27	22.40	23.14	23.30	24.05	25.22
4H	2H	13.32	14.19	14.19	15.08	16.21	19.55	20.43	20.43	21.32	22.45
	3H	14.90	15.63	15.79	16.55	17.70	21.62	22.35	22.50	23.27	24.41
	4H	15.00	15.67	15.90	16.59	17.76	22.39	23.06	23.29	23.97	25.15
	6H	15.02	15.60	15.94	16.54	17.71	22.94	23.52	23.85	24.46	25.63
	8H	15.00	15.55	15.92	16.48	17.67	23.11	23.65	24.02	24.58	25.77
	12H	14.97	15.46	15.91	16.41	17.60	23.21	23.70	24.15	24.65	25.84
8H	4H	16.46	17.00	17.38	17.94	19.12	22.46	23.01	23.38	23.94	25.13
	6H	16.71	17.16	17.66	18.14	19.32	23.10	23.55	24.05	24.53	25.71
	8H	16.73	17.13	17.69	18.10	19.30	23.32	23.72	24.28	24.69	25.89
	12H	16.71	17.06	17.67	18.02	19.27	23.48	23.83	24.43	24.79	26.04
12H	4H	16.61	17.10	17.55	18.05	19.25	22.43	22.92	23.36	23.87	25.06
	6H	16.97	17.37	17.93	18.34	19.54	23.09	23.49	24.04	24.45	25.66
	8H	17.05	17.40	18.01	18.36	19.61	23.33	23.68	24.28	24.64	25.89