

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: P936888

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-6-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936888
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-6-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

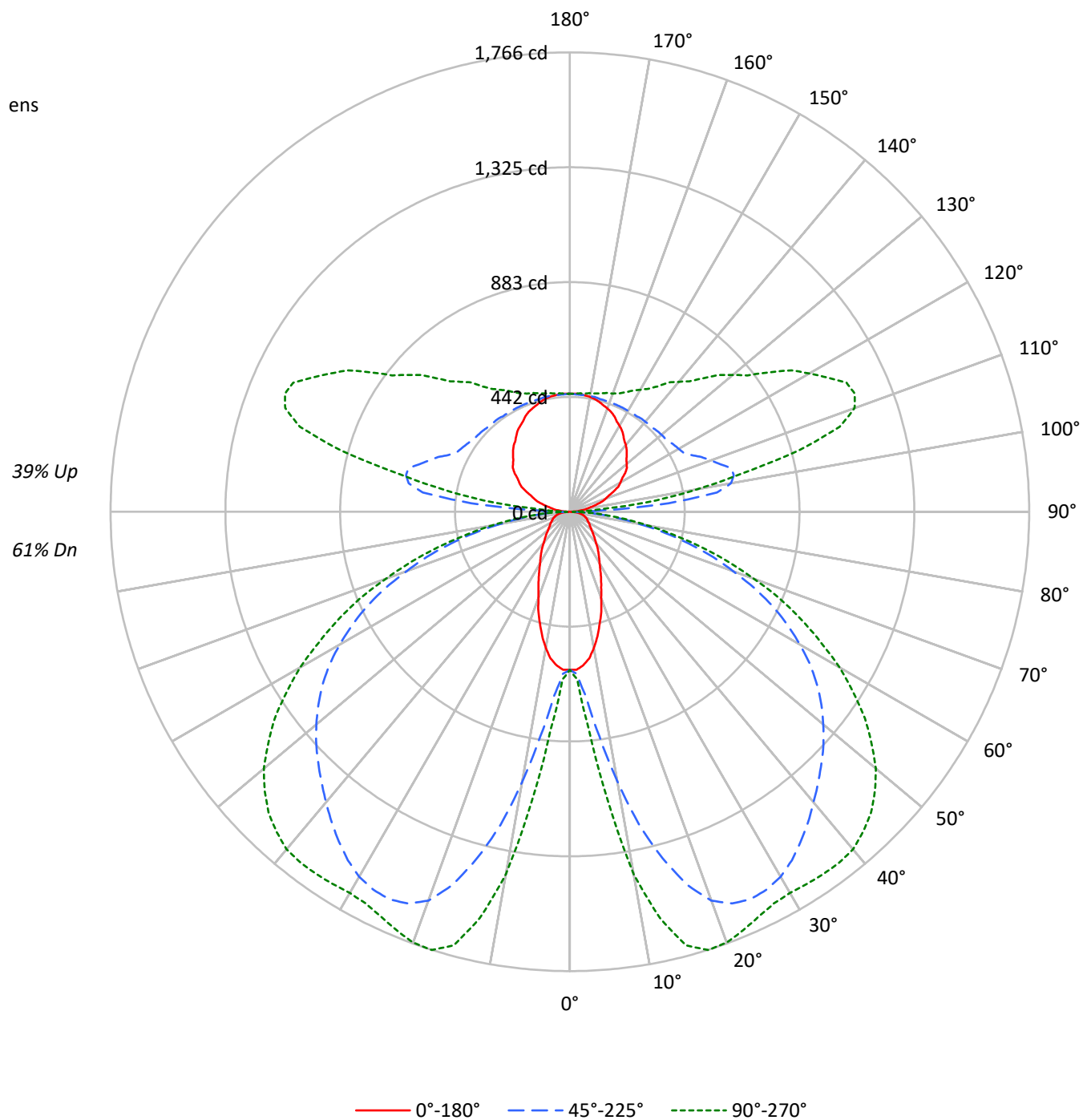
Lumens per Lamp: N/A
Luminaire Lumens: 7647.4 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 67.8
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

TEST NUMBER: P936888

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-6-3000K

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
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°	3759	3759	3759
5°	3671	4343	5053
10°	3329	6330	8377
15°	2828	8269	10115
20°	2301	9580	10310
25°	1919	10023	10100
30°	1618	10083	10081
35°	1430	9913	10342
40°	1245	9693	10611
45°	1126	9531	10652
50°	1032	9384	10476
55°	988	9171	10012
60°	1010	8764	9278
65°	1049	8148	8270
70°	1116	7101	6987
75°	1231	5785	5453
80°	1334	4007	3675
85°	1163	2121	1880

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10652 cd/sqm

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CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-6-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	1.0
10°-20°	348.4	4.6
20°-30°	609.4	8.0
30°-40°	784.5	10.3
40°-50°	876.2	11.5
50°-60°	839.2	11.0
60°-70°	665.1	8.7
70°-80°	391.1	5.1
80°-90°	110.4	1.4
90°-100°	221.4	2.9
100°-110°	582.1	7.6
110°-120°	603.6	7.9
120°-130°	484.1	6.3
130°-140°	379.9	5.0
140°-150°	291.6	3.8
150°-160°	210.0	2.7
160°-170°	128.5	1.7
170°-180°	43.4	0.6
0°-30°	1036.4	13.6
0°-40°	1820.9	23.8
0°-60°	3536.4	46.2
0°-90°	4703.0	61.5
90°-120°	1407.0	18.4
90°-150°	2562.6	33.5
90°-180°	2944.0	38.5
0°-180°	7647.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	592	635	715	809	838	55
15°	444	819	1380	1673	1725	123
25°	283	928	1643	1716	1718	131
35°	192	887	1548	1636	1700	120
45°	131	707	1368	1567	1638	101
55°	94	449	1161	1348	1385	85
65°	74	238	862	969	983	74
75°	55	146	473	520	522	57
85°	20	45	117	129	131	21
90°	3	9	23	12	12	4
95°	29	115	381	197	134	32
105°	105	159	644	977	912	111
115°	186	226	516	1028	1174	184
125°	259	290	469	792	935	230
135°	309	340	454	640	725	239
145°	358	381	448	546	588	224
155°	405	416	448	492	507	186
165°	437	443	448	466	472	123
175°	454	454	452	457	457	43
180°	454	454	454	454	454	

TEST NUMBER: P936888

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	607.7	607.7	607.7	607.7	607.7	607.7	607.7	607.7	607.7	607.7	607.7
2.5°	607.7	607.7	611.6	613.6	617.4	619.4	623.3	627.3	638.9	640.9	644.8
5°	592.1	599.9	625.3	635.1	662.4	699.6	715.1	740.6	793.3	809.0	818.8
7.5°	568.6	586.2	648.8	664.4	732.8	830.5	871.5	926.2	1010.3	1051.3	1084.5
10°	531.5	568.6	680.0	717.1	828.5	977.0	1053.2	1129.5	1256.5	1313.2	1334.6
12.5°	490.4	551.1	713.3	764.1	924.3	1141.2	1233.0	1317.0	1461.6	1537.9	1549.6
15°	443.6	525.6	744.5	818.8	1025.8	1278.0	1379.6	1483.1	1617.9	1672.7	1686.4
17.5°	402.6	506.1	773.8	852.0	1104.0	1401.1	1504.6	1590.6	1700.1	1737.1	1746.9
20°	351.7	474.9	793.3	895.0	1186.2	1490.9	1590.6	1657.1	1731.3	1754.8	1758.6
22.5°	314.6	441.6	805.1	910.6	1240.8	1545.7	1629.7	1682.4	1733.3	1741.1	1743.1
25°	283.4	404.5	803.1	928.2	1287.7	1578.9	1643.4	1682.4	1711.8	1715.6	1715.6
27.5°	254.0	363.4	795.3	932.1	1322.9	1586.7	1637.5	1664.9	1678.6	1686.4	1686.4
30°	228.7	324.4	775.8	924.3	1338.5	1578.9	1619.9	1633.6	1647.3	1658.9	1664.9
32.5°	209.1	287.2	746.4	908.6	1340.5	1559.4	1588.6	1596.4	1616.0	1643.4	1653.1
35°	191.5	250.1	713.3	887.1	1328.7	1528.1	1547.6	1555.4	1594.5	1635.6	1649.2
37.5°	173.9	222.7	670.3	850.0	1311.2	1490.9	1504.6	1518.3	1578.9	1627.7	1643.4
40°	156.3	199.3	619.4	809.0	1283.8	1446.0	1457.7	1479.2	1559.4	1616.0	1631.6
42.5°	142.7	179.7	564.7	766.0	1248.7	1395.2	1412.7	1444.0	1535.9	1596.4	1614.1
45°	130.9	160.2	506.1	707.4	1203.7	1342.4	1367.9	1410.9	1508.5	1567.1	1582.8
47.5°	119.2	146.5	445.6	646.8	1154.8	1289.7	1322.9	1371.7	1471.4	1528.1	1541.7
50°	109.4	132.9	384.9	582.3	1102.1	1233.0	1272.1	1322.9	1424.5	1477.2	1494.9
52.5°	101.7	121.2	328.2	517.8	1041.5	1174.4	1219.3	1272.1	1367.9	1418.7	1430.4
55°	93.8	111.4	279.4	449.4	979.0	1111.8	1160.7	1211.5	1305.3	1348.3	1356.1
57.5°	89.9	103.5	238.4	384.9	912.5	1041.5	1096.2	1143.2	1231.0	1264.2	1272.1
60°	84.0	97.7	207.2	330.2	840.3	975.1	1022.0	1068.8	1143.2	1170.5	1176.3
62.5°	78.2	93.8	183.7	277.5	766.0	896.9	943.8	986.8	1049.3	1068.8	1076.7
65°	74.2	89.9	166.1	238.4	689.8	814.8	861.8	898.8	949.7	969.2	973.1
67.5°	70.3	86.0	152.4	205.2	613.6	732.8	767.9	803.1	842.2	861.8	863.7
70°	64.5	82.0	140.7	181.7	535.4	638.9	668.3	705.4	736.6	746.4	752.3
72.5°	60.5	76.2	132.9	164.2	455.3	549.1	576.4	597.9	625.3	635.1	635.1
75°	54.7	68.4	125.0	146.5	373.2	449.4	472.9	494.4	515.9	519.8	513.9
77.5°	48.8	60.5	107.5	123.2	291.2	355.7	375.2	386.9	404.5	408.4	410.4
80°	41.0	52.8	84.0	95.7	211.0	261.9	275.5	285.2	300.9	300.9	304.9
82.5°	31.3	41.0	60.5	68.4	142.7	179.7	191.5	197.4	207.2	207.2	207.2
85°	19.5	25.4	39.0	45.0	86.0	109.4	117.2	119.2	127.0	129.0	129.0
87.5°	9.8	13.7	25.4	27.3	45.0	56.7	56.7	60.5	60.5	58.7	56.7
90°	3.1	5.5	8.0	8.6	13.4	19.9	23.2	20.6	15.4	11.5	11.5
92.5°	12.2	32.9	53.6	58.9	82.7	114.6	130.4	114.3	82.0	57.9	55.6
95°	29.3	67.1	105.1	114.6	203.5	322.1	381.4	340.4	258.2	196.6	189.6
97.5°	50.6	84.1	117.5	125.9	274.2	471.9	570.7	544.8	492.8	453.9	440.5
100°	67.0	97.4	127.8	135.4	299.8	519.2	628.9	630.7	634.6	637.4	621.7
102.5°	81.0	109.4	137.7	144.8	311.7	534.1	645.3	678.4	744.5	794.1	780.6
105°	104.9	128.9	152.8	158.8	320.4	535.8	643.5	717.6	865.8	977.0	969.7
107.5°	129.3	151.6	173.9	179.6	322.0	511.9	606.9	710.2	917.0	1072.1	1073.9
110°	145.7	165.8	186.1	191.1	319.6	490.8	576.4	692.0	923.2	1096.5	1104.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	161.9	181.1	200.4	205.2	319.7	472.4	548.7	667.0	903.6	1081.0	1092.6
115°	186.3	204.0	221.8	226.2	322.6	451.2	515.5	629.5	857.3	1028.2	1044.4
117.5°	210.3	226.5	242.6	246.6	328.6	438.0	492.6	595.4	801.1	955.3	973.3
120°	224.3	239.5	254.7	258.5	333.5	433.4	483.4	577.4	765.3	906.2	923.7
122.5°	238.1	253.4	268.7	272.5	340.5	431.1	476.4	561.0	730.3	857.2	874.4
125°	259.1	273.0	287.0	290.5	349.9	429.2	468.8	540.7	684.5	792.3	808.0
127.5°	276.2	290.3	304.4	307.9	359.4	428.1	462.4	524.2	647.5	740.1	753.4
130°	285.3	300.5	315.7	319.5	366.3	428.7	460.0	514.9	624.8	707.3	719.6
132.5°	294.8	310.0	325.2	328.9	371.9	429.2	457.9	507.1	605.4	679.2	690.2
135°	308.8	322.6	336.4	339.9	378.0	428.8	454.3	495.5	577.8	639.5	649.1
137.5°	323.1	336.8	350.4	353.9	387.1	431.4	453.6	488.4	558.0	610.2	618.0
140°	335.0	347.7	360.2	363.3	392.7	431.9	451.5	481.6	541.7	586.8	594.1
142.5°	344.1	355.7	367.4	370.3	397.4	433.4	451.5	477.9	530.7	570.3	576.6
145°	358.2	368.4	378.5	381.1	403.6	433.4	448.4	470.0	513.2	545.7	550.4
147.5°	372.2	382.1	392.0	394.5	412.4	436.4	448.4	465.4	499.4	524.9	528.9
150°	381.4	390.4	399.2	401.5	417.2	438.0	448.4	462.8	491.5	513.0	516.2
152.5°	390.8	397.6	404.4	406.0	420.1	439.0	448.4	460.7	485.2	503.6	505.9
155°	404.9	409.9	414.8	416.1	426.8	441.2	448.4	458.2	477.7	492.3	493.9
157.5°	415.2	420.0	425.0	426.1	433.5	443.5	448.4	456.0	471.2	482.5	483.6
160°	422.2	426.0	429.7	430.7	436.6	444.5	448.4	454.9	468.0	477.7	478.3
162.5°	429.2	432.1	434.9	435.6	439.9	445.6	448.4	454.0	464.9	473.1	473.7
165°	436.8	439.4	441.9	442.6	444.6	447.2	448.4	452.4	460.2	466.1	466.8
167.5°	443.8	445.0	446.3	446.6	448.2	450.4	451.5	454.1	459.2	463.0	463.3
170°	448.4	449.6	450.9	451.2	451.3	451.4	451.5	454.1	459.2	463.0	463.0
172.5°	450.9	451.2	451.4	451.5	451.5	451.5	451.5	453.5	457.5	460.6	460.4
175°	454.3	454.3	454.3	454.3	453.4	452.1	451.5	452.8	455.3	457.2	457.2
177.5°	454.3	454.3	454.3	454.3	453.6	452.6	452.1	453.1	455.1	456.6	456.3
180°	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	607.7	607.7
2.5°	648.8	644.8
5°	834.4	838.3
7.5°	1123.5	1121.7
10°	1397.2	1414.7
12.5°	1596.4	1600.4
15°	1717.6	1725.4
17.5°	1764.5	1766.4
20°	1766.4	1762.6
22.5°	1744.9	1741.1
25°	1719.6	1717.6
27.5°	1696.1	1698.1
30°	1686.4	1692.2
32.5°	1686.4	1696.1
35°	1690.3	1700.1
37.5°	1688.3	1700.1
40°	1680.4	1694.1
42.5°	1658.9	1668.8
45°	1625.8	1637.5
47.5°	1582.8	1590.6
50°	1528.1	1535.9
52.5°	1459.7	1461.6
55°	1377.6	1385.4
57.5°	1289.7	1291.7
60°	1192.0	1197.8
62.5°	1088.4	1088.4
65°	979.0	982.8
67.5°	865.6	875.4
70°	750.3	752.3
72.5°	637.1	637.1
75°	519.8	521.7
77.5°	408.4	408.4
80°	302.9	304.9
82.5°	209.1	213.0
85°	130.9	130.9
87.5°	60.5	54.7
90°	11.5	11.5
92.5°	46.3	37.2
95°	161.7	133.8
97.5°	387.5	334.5
100°	558.4	495.1
102.5°	726.4	672.2
105°	940.6	911.5
107.5°	1080.9	1088.0
110°	1134.4	1164.8

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1139.2	1185.8
115°	1109.0	1173.6
117.5°	1045.0	1116.6
120°	993.3	1063.0
122.5°	943.1	1011.7
125°	871.3	934.6
127.5°	806.8	860.3
130°	768.9	818.2
132.5°	734.4	778.5
135°	687.1	725.2
137.5°	649.3	680.4
140°	623.2	652.3
142.5°	601.7	626.7
145°	569.4	588.3
147.5°	544.6	560.2
150°	529.0	541.7
152.5°	515.6	525.2
155°	500.3	506.6
157.5°	488.2	492.6
160°	480.9	483.4
162.5°	476.1	478.6
165°	469.3	471.9
167.5°	464.4	465.5
170°	463.0	463.0
172.5°	459.4	458.5
175°	457.2	457.2
177.5°	455.3	454.3
180°	454.3	454.3

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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	6.59	7.61	7.43	8.48	9.58	19.75	20.77	20.59	21.65	22.74
	3H	7.30	8.23	8.16	9.11	10.23	21.60	22.52	22.45	23.40	24.52
	4H	7.61	8.48	8.48	9.37	10.50	22.25	23.12	23.12	24.01	25.14
	6H	7.87	8.67	8.75	9.57	10.71	22.68	23.49	23.56	24.38	25.53
	8H	7.94	8.71	8.83	9.62	10.77	22.80	23.57	23.70	24.49	25.63
	12H	7.96	8.70	8.86	9.60	10.77	22.88	23.61	23.77	24.52	25.69
4H	2H	13.81	14.69	14.69	15.57	16.70	20.04	20.92	20.92	21.81	22.94
	3H	15.39	16.13	16.28	17.05	18.19	22.10	22.83	22.99	23.75	24.90
	4H	15.50	16.17	16.40	17.08	18.25	22.87	23.54	23.77	24.45	25.63
	6H	15.52	16.10	16.43	17.04	18.21	23.42	24.00	24.33	24.93	26.11
	8H	15.50	16.04	16.42	16.97	18.16	23.58	24.12	24.50	25.06	26.24
	12H	15.46	15.95	16.40	16.91	18.10	23.68	24.17	24.62	25.12	26.31
8H	4H	16.95	17.49	17.87	18.43	19.62	22.95	23.49	23.86	24.42	25.61
	6H	17.20	17.65	18.15	18.63	19.81	23.58	24.03	24.52	25.00	26.19
	8H	17.22	17.62	18.18	18.59	19.79	23.80	24.20	24.75	25.16	26.37
	12H	17.20	17.55	18.16	18.51	19.76	23.95	24.30	24.91	25.26	26.51
12H	4H	17.10	17.59	18.04	18.54	19.74	22.91	23.40	23.84	24.35	25.54
	6H	17.46	17.86	18.42	18.83	20.03	23.56	23.96	24.52	24.93	26.13
	8H	17.54	17.89	18.50	18.85	20.10	23.80	24.15	24.76	25.11	26.36