

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: P937718

Luminaire Tested: SQ4-FB-100U-125D-840-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937718
REPORT IS A COMBINATION OF REPORTS P933568 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

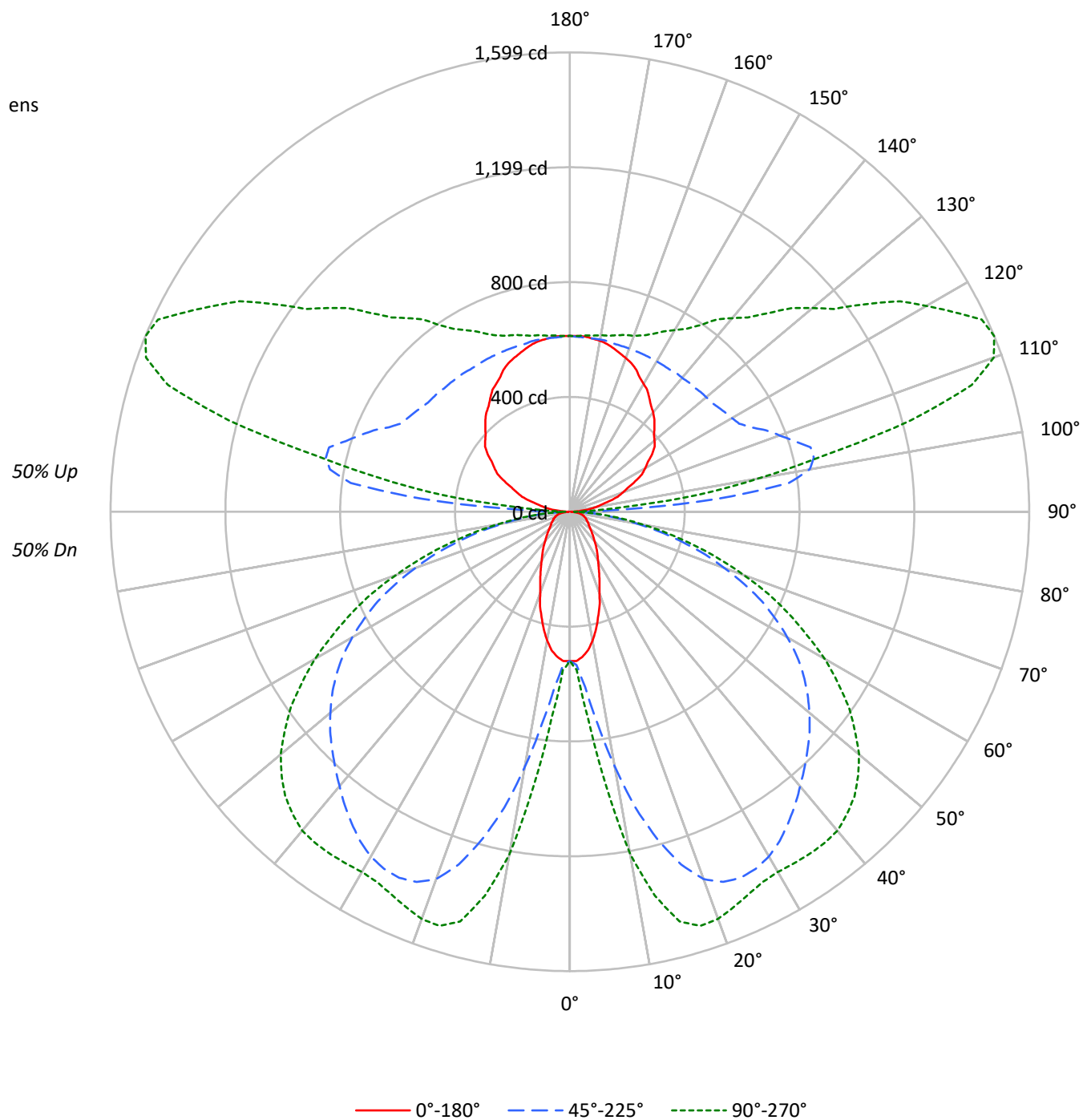
Lumens per Lamp: N/A
Luminaire Lumens: 7993.9 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 68.8
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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4824	4824	4824
5°	4708	5572	6485
10°	4266	8116	10751
15°	3621	10596	12982
20°	2945	12271	13231
25°	2454	12831	12962
30°	2066	12902	12937
35°	1824	12677	13271
40°	1587	12389	13617
45°	1434	12174	13671
50°	1314	11979	13444
55°	1253	11696	12848
60°	1279	11169	11908
65°	1323	10371	10614
70°	1399	9027	8968
75°	1535	7341	6998
80°	1643	5072	4715
85°	1383	2677	2413

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13671 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	0.8
10°-20°	298.1	3.7
20°-30°	521.4	6.5
30°-40°	671.2	8.4
40°-50°	749.7	9.4
50°-60°	718.0	9.0
60°-70°	569.0	7.1
70°-80°	334.6	4.2
80°-90°	95.3	1.2
90°-100°	298.5	3.7
100°-110°	784.7	9.8
110°-120°	813.7	10.2
120°-130°	652.6	8.2
130°-140°	512.1	6.4
140°-150°	393.1	4.9
150°-160°	283.1	3.5
160°-170°	173.2	2.2
170°-180°	58.5	0.7
0°-30°	886.7	11.1
0°-40°	1557.9	19.5
0°-60°	3025.6	37.8
0°-90°	4024.5	50.3
90°-120°	1896.8	23.7
90°-150°	3454.6	43.2
90°-180°	3969.0	49.7
0°-180°	7993.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	520	520	520	520	520	
5°	506	543	612	692	717	47
15°	380	700	1180	1431	1476	106
25°	242	794	1406	1468	1470	112
35°	164	759	1324	1399	1454	102
45°	112	605	1170	1341	1401	87
55°	80	384	993	1154	1185	73
65°	64	204	737	829	841	63
75°	47	125	405	445	446	49
85°	17	38	100	110	112	18
90°	4	12	31	16	16	5
95°	39	154	514	265	180	44
105°	141	214	868	1317	1229	150
115°	251	305	695	1386	1582	248
125°	349	392	632	1068	1260	310
135°	416	458	612	862	978	322
145°	483	514	605	736	793	303
155°	546	561	605	664	683	251
165°	589	597	605	628	636	166
175°	612	612	609	616	616	58
180°	612	612	612	612	612	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9
2.5°	519.9	519.9	523.2	524.9	528.3	530.0	533.3	536.7	546.7	548.3	551.7
5°	506.5	513.3	535.0	543.3	566.7	598.5	611.9	633.6	678.8	692.1	700.5
7.5°	486.5	501.5	555.1	568.4	626.9	710.5	745.6	792.5	864.3	899.4	927.8
10°	454.7	486.5	581.7	613.5	708.8	835.8	901.1	966.3	1074.9	1123.5	1141.8
12.5°	419.6	471.5	610.2	653.7	790.8	976.3	1054.9	1126.8	1250.5	1315.7	1325.7
15°	379.5	449.7	637.0	700.5	877.6	1093.3	1180.3	1268.9	1384.3	1431.0	1442.8
17.5°	344.4	433.0	662.1	728.9	944.5	1198.6	1287.3	1360.9	1454.4	1486.2	1494.5
20°	300.9	406.3	678.8	765.7	1014.8	1275.6	1360.9	1417.7	1481.2	1501.3	1504.6
22.5°	269.1	377.8	688.7	779.0	1061.6	1322.3	1394.3	1439.4	1482.9	1489.6	1491.2
25°	242.5	346.1	687.2	794.1	1101.7	1350.8	1406.0	1439.4	1464.5	1467.9	1467.9
27.5°	217.4	310.9	680.4	797.4	1131.8	1357.5	1401.0	1424.4	1436.1	1442.8	1442.8
30°	195.6	277.5	663.7	790.8	1145.2	1350.8	1385.9	1397.6	1409.3	1419.4	1424.4
32.5°	178.9	245.7	638.6	777.4	1146.9	1334.1	1359.2	1365.8	1382.6	1406.0	1414.3
35°	163.8	214.0	610.2	759.0	1136.8	1307.3	1324.0	1330.7	1364.1	1399.3	1411.0
37.5°	148.8	190.6	573.4	727.3	1121.8	1275.6	1287.3	1299.0	1350.8	1392.6	1406.0
40°	133.8	170.5	530.0	692.1	1098.4	1237.1	1247.2	1265.5	1334.1	1382.6	1395.9
42.5°	122.0	153.8	483.1	655.3	1068.2	1193.7	1208.7	1235.5	1314.0	1365.8	1380.9
45°	112.0	137.1	433.0	605.2	1029.8	1148.6	1170.3	1207.0	1290.6	1340.8	1354.2
47.5°	102.0	125.4	381.2	553.4	988.0	1103.4	1131.8	1173.6	1258.8	1307.3	1319.1
50°	93.7	113.7	329.3	498.1	942.8	1054.9	1088.4	1131.8	1218.7	1263.8	1279.0
52.5°	86.9	103.6	280.9	443.0	891.1	1004.7	1043.2	1088.4	1170.3	1213.8	1223.7
55°	80.2	95.2	239.1	384.5	837.5	951.2	993.0	1036.5	1116.7	1153.5	1160.2
57.5°	76.9	88.6	203.9	329.3	780.7	891.1	937.9	978.0	1053.2	1081.7	1088.4
60°	71.9	83.6	177.2	282.6	718.9	834.3	874.4	914.5	978.0	1001.4	1006.4
62.5°	66.9	80.2	157.2	237.4	655.3	767.4	807.5	844.2	897.8	914.5	921.1
65°	63.5	76.9	142.1	203.9	590.1	697.1	737.2	769.1	812.5	829.2	832.6
67.5°	60.2	73.6	130.4	175.6	524.9	626.9	657.0	687.2	720.5	737.2	738.9
70°	55.1	70.2	120.3	155.5	458.0	546.7	571.8	603.5	630.2	638.6	643.7
72.5°	51.9	65.2	113.7	140.4	389.6	469.8	493.2	511.6	535.0	543.3	543.3
75°	46.8	58.5	107.0	125.4	319.3	384.5	404.6	423.0	441.3	444.7	439.7
77.5°	41.8	51.9	92.0	105.3	249.1	304.3	321.0	331.0	346.1	349.4	351.0
80°	35.1	45.2	71.9	81.9	180.5	224.0	235.7	244.0	257.5	257.5	260.8
82.5°	26.8	35.1	51.9	58.5	122.0	153.8	163.8	168.8	177.2	177.2	177.2
85°	16.7	21.7	33.4	38.4	73.6	93.7	100.3	102.0	108.7	110.4	110.4
87.5°	8.4	11.7	21.7	23.4	38.4	48.5	48.5	51.9	51.9	50.2	48.5
90°	4.1	7.4	10.7	11.5	18.1	26.9	31.2	27.8	20.8	15.6	15.6
92.5°	16.4	44.4	72.3	79.3	111.5	154.4	175.9	154.1	110.7	78.1	75.0
95°	39.4	90.6	141.8	154.5	274.4	434.1	514.1	458.7	348.1	265.1	255.7
97.5°	68.2	113.3	158.5	169.7	369.6	636.1	769.3	734.3	664.3	611.9	594.0
100°	90.4	131.3	172.2	182.5	404.3	700.0	847.8	850.4	855.4	859.3	837.9
102.5°	109.3	147.5	185.6	195.2	420.2	720.1	870.0	914.6	1003.7	1070.5	1052.2
105°	141.4	173.7	206.0	214.1	432.0	722.3	867.6	967.4	1167.2	1317.1	1307.3
107.5°	174.3	204.4	234.6	242.1	434.1	690.1	818.2	957.6	1236.3	1445.3	1447.7
110°	196.4	223.7	250.9	257.7	430.8	661.7	777.1	932.9	1244.5	1478.1	1488.4

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	218.2	244.1	270.0	276.5	431.0	636.8	739.7	899.2	1218.0	1457.2	1472.9
115°	251.1	275.0	298.9	304.9	434.9	608.3	695.0	848.6	1155.8	1386.2	1407.9
117.5°	283.6	305.3	327.0	332.5	443.0	590.4	664.1	802.8	1080.0	1288.0	1312.1
120°	302.4	322.9	343.3	348.5	449.5	584.4	651.8	778.4	1031.8	1221.8	1245.3
122.5°	321.0	341.7	362.3	367.4	459.0	581.2	642.3	756.3	984.4	1155.6	1178.7
125°	349.4	368.1	386.9	391.6	471.8	578.6	632.0	728.9	922.7	1068.0	1089.4
127.5°	372.3	391.2	410.3	415.1	484.5	577.1	623.4	706.6	873.0	997.8	1015.8
130°	384.6	405.1	425.5	430.7	493.8	578.1	620.2	694.3	842.4	953.4	970.0
132.5°	397.4	417.8	438.3	443.4	501.3	578.6	617.2	683.5	816.1	915.6	930.5
135°	416.3	434.9	453.6	458.2	509.6	578.1	612.4	667.9	778.8	862.1	875.0
137.5°	435.6	454.1	472.5	477.1	521.9	581.6	611.5	658.4	752.3	822.7	833.2
140°	451.6	468.6	485.6	489.9	529.5	582.2	608.6	649.1	730.2	791.1	800.9
142.5°	464.0	479.7	495.4	499.3	535.8	584.3	608.6	644.2	715.4	768.9	777.4
145°	482.8	496.6	510.2	513.7	544.0	584.4	604.6	633.7	691.9	735.6	742.0
147.5°	501.8	515.1	528.4	531.7	556.0	588.4	604.6	627.5	673.3	707.7	713.0
150°	514.1	526.1	538.2	541.2	562.4	590.5	604.6	623.9	662.6	691.6	695.8
152.5°	526.8	535.9	545.1	547.4	566.4	591.8	604.6	621.1	654.1	678.9	682.1
155°	545.8	552.5	559.3	561.0	575.5	594.9	604.6	617.7	644.0	663.6	665.8
157.5°	559.7	566.3	572.8	574.5	584.5	597.8	604.6	614.7	635.2	650.5	652.0
160°	569.2	574.3	579.4	580.6	588.7	599.2	604.6	613.4	630.8	644.0	644.9
162.5°	578.6	582.4	586.3	587.3	593.0	600.7	604.6	612.0	626.7	637.8	638.5
165°	588.8	592.3	595.8	596.7	599.3	602.8	604.6	609.9	620.5	628.4	629.3
167.5°	598.3	600.0	601.7	602.1	604.3	607.1	608.6	612.1	619.0	624.2	624.6
170°	604.6	606.1	607.8	608.2	608.3	608.5	608.6	612.1	619.0	624.2	624.2
172.5°	607.8	608.2	608.5	608.6	608.6	608.6	608.6	611.4	616.8	621.0	620.7
175°	612.4	612.4	612.4	612.4	611.1	609.4	608.6	610.4	613.8	616.4	616.4
177.5°	612.4	612.4	612.4	612.4	611.4	610.1	609.4	610.8	613.5	615.6	615.2
180°	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	519.9	519.9
2.5°	555.1	551.7
5°	713.8	717.2
7.5°	961.3	959.6
10°	1195.3	1210.4
12.5°	1365.8	1369.2
15°	1469.6	1476.2
17.5°	1509.7	1511.3
20°	1511.3	1508.0
22.5°	1492.9	1489.6
25°	1471.1	1469.6
27.5°	1451.1	1452.8
30°	1442.8	1447.8
32.5°	1442.8	1451.1
35°	1446.1	1454.4
37.5°	1444.5	1454.4
40°	1437.7	1449.4
42.5°	1419.4	1427.7
45°	1390.9	1401.0
47.5°	1354.2	1360.9
50°	1307.3	1314.0
52.5°	1248.8	1250.5
55°	1178.6	1185.3
57.5°	1103.4	1105.1
60°	1019.8	1024.9
62.5°	931.2	931.2
65°	837.5	840.9
67.5°	740.6	749.0
70°	642.0	643.7
72.5°	545.0	545.0
75°	444.7	446.4
77.5°	349.4	349.4
80°	259.2	260.8
82.5°	178.9	182.2
85°	112.0	112.0
87.5°	51.9	46.8
90°	15.6	15.6
92.5°	62.5	50.1
95°	218.1	180.4
97.5°	522.4	450.8
100°	752.7	667.4
102.5°	979.2	906.2
105°	1268.0	1228.8
107.5°	1457.2	1466.7
110°	1529.3	1570.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1535.7	1598.6
115°	1495.0	1582.2
117.5°	1408.7	1505.3
120°	1339.1	1433.0
122.5°	1271.4	1363.9
125°	1174.6	1260.0
127.5°	1087.8	1159.7
130°	1036.5	1103.0
132.5°	990.0	1049.6
135°	926.2	977.6
137.5°	875.3	917.3
140°	840.2	879.4
142.5°	811.1	844.9
145°	767.6	793.2
147.5°	734.2	755.3
150°	713.0	730.2
152.5°	695.1	708.1
155°	674.4	683.0
157.5°	658.1	664.1
160°	648.3	651.8
162.5°	641.9	645.2
165°	632.7	636.2
167.5°	626.0	627.5
170°	624.2	624.2
172.5°	619.4	618.1
175°	616.4	616.4
177.5°	613.8	612.4
180°	612.4	612.4

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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	6.49	7.39	7.43	8.36	9.62	19.63	20.53	20.58	21.50	22.76
	3H	7.20	8.01	8.16	8.99	10.27	21.46	22.27	22.41	23.25	24.53
	4H	7.50	8.27	8.47	9.25	10.54	22.09	22.86	23.06	23.84	25.14
	6H	7.75	8.46	8.74	9.45	10.76	22.51	23.22	23.50	24.21	25.52
	8H	7.82	8.50	8.81	9.50	10.81	22.63	23.31	23.62	24.31	25.61
	12H	7.84	8.49	8.84	9.48	10.81	22.69	23.34	23.69	24.33	25.66
4H	2H	13.69	14.46	14.66	15.44	16.73	19.91	20.68	20.89	21.66	22.95
	3H	15.26	15.90	16.25	16.91	18.22	21.94	22.59	22.93	23.60	24.91
	4H	15.36	15.95	16.35	16.95	18.28	22.70	23.29	23.70	24.30	25.63
	6H	15.37	15.88	16.38	16.91	18.24	23.23	23.74	24.24	24.77	26.10
	8H	15.35	15.83	16.36	16.85	18.19	23.39	23.86	24.40	24.89	26.23
	12H	15.31	15.74	16.34	16.77	18.12	23.48	23.91	24.51	24.94	26.29
8H	4H	16.80	17.27	17.80	18.29	19.64	22.77	23.24	23.78	24.26	25.61
	6H	17.04	17.43	18.07	18.50	19.84	23.39	23.78	24.42	24.84	26.19
	8H	17.06	17.41	18.10	18.45	19.81	23.60	23.95	24.64	25.00	26.36
	12H	17.03	17.34	18.08	18.38	19.78	23.74	24.04	24.78	25.09	26.49
12H	4H	16.94	17.37	17.97	18.40	19.75	22.72	23.15	23.75	24.19	25.54
	6H	17.29	17.64	18.34	18.69	20.05	23.37	23.72	24.41	24.77	26.13
	8H	17.37	17.67	18.41	18.72	20.12	23.60	23.90	24.64	24.94	26.35