

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: P937002

Luminaire Tested: SQ4-FB-050U-125D-B40-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

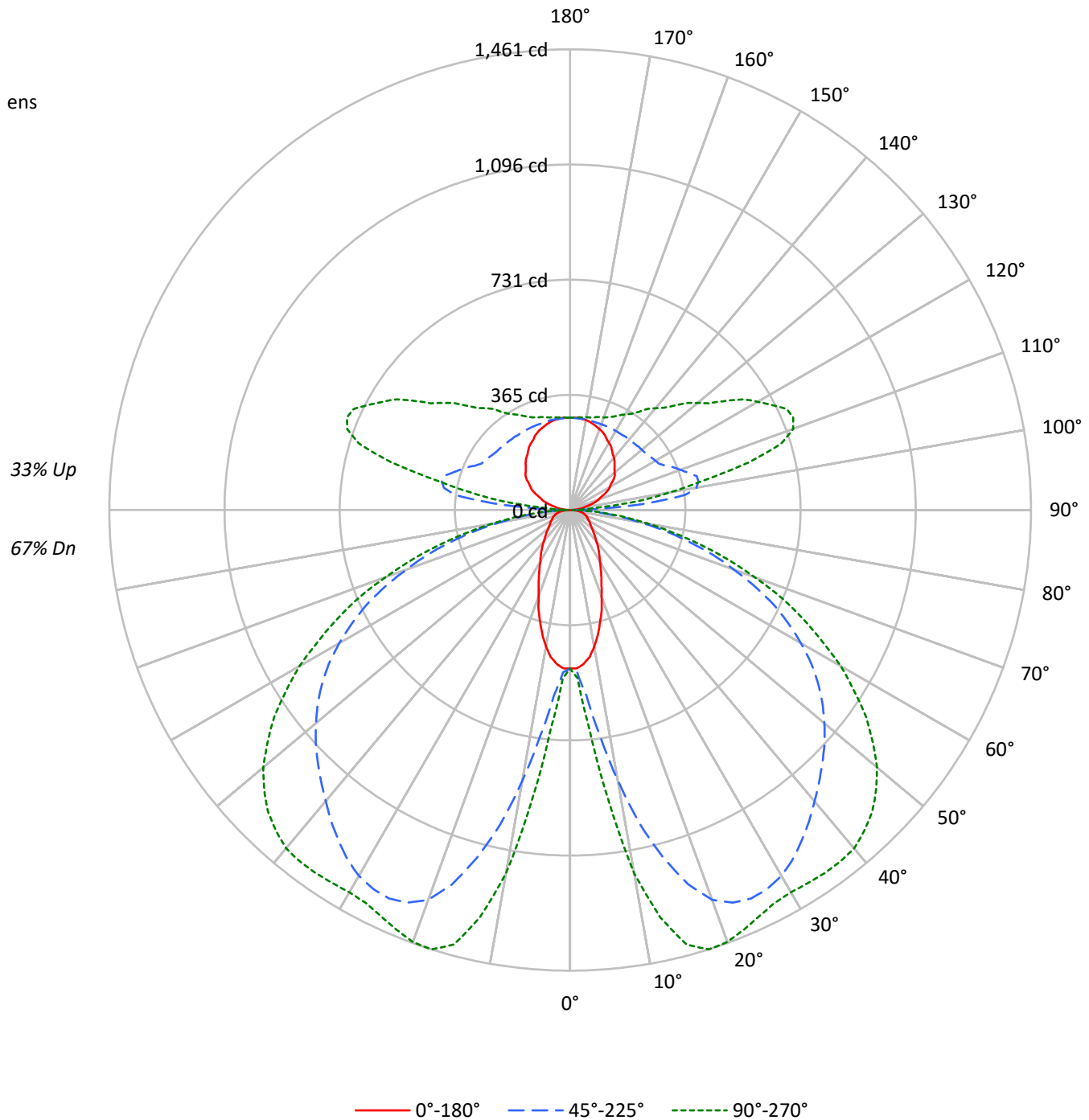
Test Method: LM-79-2019  
Report Number: P937002  
REPORT IS A COMBINATION OF REPORTS P933472 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-125D-B40-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5790.1 lumens  
Efficiency: N/A  
Efficacy: 103.4 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: Semi-Direct  
  
Input Watts (W): 56  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4663	4663	4663
5°	4551	5385	6268
10°	4123	7845	10392
15°	3500	10242	12548
20°	2847	11860	12788
25°	2372	12403	12529
30°	1997	12471	12506
35°	1762	12254	12828
40°	1534	11975	13162
45°	1387	11767	13214
50°	1269	11578	12995
55°	1211	11306	12419
60°	1236	10796	11510
65°	1280	10024	10260
70°	1353	8726	8668
75°	1486	7096	6765
80°	1587	4905	4558
85°	1333	2586	2333

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13214 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	1.1
10°-20°	288.1	5.0
20°-30°	504.0	8.7
30°-40°	648.8	11.2
40°-50°	724.6	12.5
50°-60°	694.0	12.0
60°-70°	550.0	9.5
70°-80°	323.4	5.6
80°-90°	91.0	1.6
90°-100°	142.9	2.5
100°-110°	375.9	6.5
110°-120°	389.7	6.7
120°-130°	312.6	5.4
130°-140°	245.3	4.2
140°-150°	188.3	3.3
150°-160°	135.6	2.3
160°-170°	83.0	1.4
170°-180°	28.0	0.5
0°-30°	857.1	14.8
0°-40°	1505.8	26.0
0°-60°	2924.5	50.5
0°-90°	3888.9	67.2
90°-120°	908.5	15.7
90°-150°	1654.7	28.6
90°-180°	1901.0	32.8
0°-180°	5790.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	490	525	591	669	693	45
15°	367	677	1141	1383	1427	102
25°	234	768	1359	1419	1420	108
35°	158	734	1280	1353	1406	99
45°	108	585	1131	1296	1354	84
55°	78	372	960	1115	1146	71
65°	61	197	713	802	813	61
75°	45	121	391	430	432	47
85°	16	37	97	107	108	17
90°	2	6	15	7	7	3
95°	19	74	246	127	86	21
105°	68	103	416	631	589	72
115°	120	146	333	664	758	119
125°	167	188	303	512	604	149
135°	199	220	293	413	468	154
145°	231	246	290	352	380	145
155°	261	269	290	318	327	120
165°	282	286	290	301	305	80
175°	293	293	292	295	295	28
180°	293	293	293	293	293	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5
2.5°	502.5	502.5	505.8	507.4	510.6	512.3	515.5	518.8	528.4	530.0	533.3
5°	489.6	496.1	517.1	525.2	547.8	578.5	591.4	612.4	656.1	669.0	677.1
7.5°	470.2	484.8	536.5	549.4	605.9	686.7	720.7	766.0	835.4	869.3	896.8
10°	439.5	470.2	562.3	593.1	685.1	807.9	871.0	934.0	1039.0	1085.9	1103.7
12.5°	405.6	455.7	589.8	631.8	764.4	943.7	1019.7	1089.2	1208.7	1271.8	1281.4
15°	366.8	434.7	615.7	677.1	848.3	1056.8	1140.8	1226.5	1338.1	1383.2	1394.6
17.5°	332.9	418.6	639.9	704.6	913.0	1158.6	1244.3	1315.4	1405.9	1436.6	1444.6
20°	290.9	392.7	656.1	740.1	980.9	1233.0	1315.4	1370.3	1431.7	1451.1	1454.4
22.5°	260.1	365.2	665.7	753.0	1026.1	1278.2	1347.7	1391.3	1433.4	1439.9	1441.4
25°	234.4	334.5	664.2	767.5	1064.9	1305.7	1359.1	1391.3	1415.6	1418.8	1418.8
27.5°	210.1	300.5	657.7	770.8	1094.0	1312.2	1354.2	1376.8	1388.1	1394.6	1394.6
30°	189.1	268.3	641.6	764.4	1106.9	1305.7	1339.6	1350.9	1362.2	1372.0	1376.8
32.5°	173.0	237.5	617.3	751.4	1108.6	1289.5	1313.8	1320.2	1336.4	1359.1	1367.1
35°	158.3	206.9	589.8	733.6	1098.8	1263.7	1279.8	1286.3	1318.6	1352.6	1363.8
37.5°	143.8	184.2	554.3	703.0	1084.3	1233.0	1244.3	1255.6	1305.7	1346.1	1359.1
40°	129.3	164.8	512.3	669.0	1061.7	1195.8	1205.5	1223.3	1289.5	1336.4	1349.3
42.5°	117.9	148.7	467.0	633.5	1032.5	1153.8	1168.3	1194.2	1270.1	1320.2	1334.8
45°	108.3	132.6	418.6	584.9	995.4	1110.2	1131.2	1166.7	1247.5	1296.0	1308.9
47.5°	98.6	121.2	368.4	534.9	955.0	1066.5	1094.0	1134.4	1216.8	1263.7	1275.0
50°	90.5	109.9	318.3	481.5	911.4	1019.7	1052.0	1094.0	1178.0	1221.6	1236.2
52.5°	84.0	100.2	271.5	428.2	861.3	971.1	1008.4	1052.0	1131.2	1173.2	1182.9
55°	77.5	92.1	231.1	371.7	809.6	919.5	959.9	1001.9	1079.4	1115.0	1121.5
57.5°	74.3	85.7	197.1	318.3	754.6	861.3	906.6	945.4	1018.0	1045.5	1052.0
60°	69.5	80.8	171.3	273.1	694.9	806.4	845.2	883.9	945.4	968.0	972.8
62.5°	64.7	77.5	151.9	229.5	633.5	741.7	780.5	816.0	867.8	883.9	890.3
65°	61.4	74.3	137.3	197.1	570.4	673.8	712.6	743.4	785.4	801.5	804.8
67.5°	58.2	71.1	126.1	169.7	507.4	605.9	635.1	664.2	696.5	712.6	714.2
70°	53.3	67.9	116.3	150.3	442.7	528.4	552.7	583.3	609.2	617.3	622.2
72.5°	50.1	63.0	109.9	135.7	376.6	454.1	476.7	494.5	517.1	525.2	525.2
75°	45.3	56.5	103.4	121.2	308.7	371.7	391.1	408.8	426.6	429.8	425.0
77.5°	40.4	50.1	88.9	101.8	240.8	294.1	310.3	319.9	334.5	337.7	339.3
80°	33.9	43.6	69.5	79.2	174.5	216.5	227.9	235.9	248.9	248.9	252.1
82.5°	25.9	33.9	50.1	56.5	117.9	148.7	158.3	163.2	171.3	171.3	171.3
85°	16.1	21.0	32.3	37.1	71.1	90.5	96.9	98.6	105.0	106.7	106.7
87.5°	8.1	11.3	21.0	22.6	37.1	46.9	46.9	50.1	50.1	48.5	46.9
90°	2.0	3.5	5.2	5.5	8.7	12.9	15.0	13.3	9.9	7.4	7.4
92.5°	7.8	21.2	34.7	38.0	53.4	73.9	84.2	73.8	53.0	37.4	35.9
95°	18.9	43.4	67.9	74.0	131.4	207.9	246.2	219.6	166.6	126.9	122.4
97.5°	32.7	54.2	75.8	81.3	177.0	304.6	368.4	351.7	318.2	293.1	284.5
100°	43.3	62.8	82.5	87.4	193.6	335.2	406.1	407.3	409.8	411.6	401.4
102.5°	52.3	70.7	88.9	93.5	201.2	344.9	416.7	438.1	480.7	512.7	504.0
105°	67.7	83.2	98.7	102.6	206.9	346.0	415.5	463.4	559.1	630.9	626.2
107.5°	83.5	97.9	112.3	115.9	207.9	330.6	391.9	458.7	592.2	692.3	693.4
110°	94.1	107.1	120.1	123.4	206.4	317.0	372.3	446.8	596.1	708.0	712.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	104.5	116.9	129.3	132.5	206.4	305.0	354.3	430.7	583.4	698.0	705.6
115°	120.2	131.7	143.2	146.0	208.3	291.3	332.8	406.4	553.5	663.9	674.3
117.5°	135.8	146.2	156.6	159.2	212.2	282.8	318.1	384.5	517.2	616.8	628.4
120°	144.9	154.7	164.5	166.9	215.4	279.9	312.2	372.8	494.2	585.2	596.5
122.5°	153.8	163.7	173.5	176.0	219.8	278.4	307.6	362.2	471.6	553.5	564.6
125°	167.3	176.3	185.3	187.6	226.0	277.1	302.7	349.1	442.0	511.6	521.8
127.5°	178.3	187.5	196.5	198.8	232.1	276.5	298.6	338.5	418.1	477.9	486.5
130°	184.2	194.1	203.8	206.3	236.6	276.9	297.0	332.5	403.5	456.7	464.6
132.5°	190.3	200.2	209.9	212.4	240.2	277.1	295.7	327.4	390.9	438.5	445.7
135°	199.4	208.3	217.3	219.5	244.1	276.9	293.3	319.8	373.0	412.9	419.1
137.5°	208.7	217.5	226.3	228.5	250.0	278.6	292.9	315.3	360.3	394.0	399.1
140°	216.3	224.4	232.6	234.6	253.6	278.9	291.5	310.9	349.8	378.9	383.6
142.5°	222.2	229.8	237.2	239.1	256.6	279.8	291.5	308.6	342.7	368.2	372.3
145°	231.3	237.8	244.4	246.0	260.5	279.9	289.6	303.5	331.4	352.3	355.4
147.5°	240.4	246.8	253.1	254.7	266.3	281.8	289.6	300.5	322.5	338.9	341.5
150°	246.2	251.9	257.8	259.2	269.3	282.8	289.6	298.8	317.3	331.3	333.4
152.5°	252.3	256.7	261.1	262.1	271.3	283.4	289.6	297.5	313.3	325.2	326.7
155°	261.4	264.6	267.9	268.6	275.6	284.9	289.6	295.9	308.5	317.9	319.0
157.5°	268.1	271.2	274.4	275.1	279.9	286.3	289.6	294.4	304.3	311.6	312.4
160°	272.7	275.0	277.5	278.1	281.9	287.0	289.6	293.8	302.2	308.5	308.8
162.5°	277.1	279.0	280.8	281.2	284.0	287.7	289.6	293.1	300.2	305.5	305.9
165°	282.1	283.7	285.4	285.8	287.1	288.7	289.6	292.0	297.1	300.9	301.3
167.5°	286.6	287.4	288.1	288.3	289.4	290.8	291.5	293.2	296.5	299.0	299.2
170°	289.6	290.3	291.1	291.3	291.4	291.5	291.5	293.2	296.5	299.0	299.0
172.5°	291.1	291.3	291.5	291.5	291.5	291.5	291.5	292.8	295.4	297.4	297.2
175°	293.3	293.3	293.3	293.3	292.7	291.8	291.5	292.3	294.0	295.3	295.3
177.5°	293.3	293.3	293.3	293.3	292.8	292.2	291.9	292.6	293.9	294.9	294.7
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	502.5	502.5
2.5°	536.5	533.3
5°	690.0	693.2
7.5°	929.2	927.6
10°	1155.4	1170.0
12.5°	1320.2	1323.4
15°	1420.5	1426.9
17.5°	1459.2	1460.9
20°	1460.9	1457.6
22.5°	1443.0	1439.9
25°	1422.0	1420.5
27.5°	1402.6	1404.2
30°	1394.6	1399.5
32.5°	1394.6	1402.6
35°	1397.8	1405.9
37.5°	1396.2	1405.9
40°	1389.7	1401.0
42.5°	1372.0	1380.0
45°	1344.4	1354.2
47.5°	1308.9	1315.4
50°	1263.7	1270.1
52.5°	1207.1	1208.7
55°	1139.2	1145.7
57.5°	1066.5	1068.2
60°	985.8	990.6
62.5°	900.1	900.1
65°	809.6	812.8
67.5°	715.9	724.0
70°	620.6	622.2
72.5°	526.8	526.8
75°	429.8	431.5
77.5°	337.7	337.7
80°	250.5	252.1
82.5°	173.0	176.1
85°	108.3	108.3
87.5°	50.1	45.3
90°	7.4	7.4
92.5°	30.0	24.0
95°	104.4	86.4
97.5°	250.2	215.9
100°	360.5	319.6
102.5°	469.0	434.0
105°	607.4	588.6
107.5°	697.9	702.5
110°	732.5	752.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	735.6	765.7
115°	716.1	757.8
117.5°	674.7	721.0
120°	641.4	686.4
122.5°	609.0	653.3
125°	562.6	603.5
127.5°	521.0	555.4
130°	496.5	528.3
132.5°	474.2	502.7
135°	443.7	468.2
137.5°	419.1	439.3
140°	402.4	421.3
142.5°	388.5	404.7
145°	367.7	379.9
147.5°	351.6	361.8
150°	341.6	349.8
152.5°	332.9	339.1
155°	323.1	327.2
157.5°	315.2	318.1
160°	310.6	312.2
162.5°	307.5	309.0
165°	303.0	304.7
167.5°	299.9	300.5
170°	299.0	299.0
172.5°	296.6	296.0
175°	295.3	295.3
177.5°	294.0	293.3
180°	293.3	293.3



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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	7.77	8.86	8.55	9.68	10.68	20.91	22.00	21.69	22.82	23.82
	3H	8.49	9.48	9.29	10.30	11.33	22.75	23.74	23.55	24.56	25.59
	4H	8.80	9.73	9.61	10.57	11.61	23.39	24.33	24.21	25.16	26.20
	6H	9.06	9.93	9.89	10.77	11.82	23.82	24.69	24.65	25.53	26.58
	8H	9.14	9.96	9.98	10.82	11.88	23.95	24.77	24.78	25.63	26.68
	12H	9.16	9.95	10.01	10.80	11.89	24.01	24.80	24.86	25.65	26.74
4H	2H	14.99	15.92	15.81	16.75	17.79	21.21	22.15	22.03	22.98	24.02
	3H	16.58	17.36	17.41	18.23	19.28	23.26	24.05	24.09	24.91	25.97
	4H	16.68	17.40	17.53	18.26	19.34	24.03	24.75	24.88	25.61	26.69
	6H	16.71	17.33	17.57	18.22	19.30	24.57	25.19	25.43	26.08	27.16
	8H	16.69	17.27	17.56	18.16	19.26	24.73	25.31	25.60	26.20	27.29
	12H	16.66	17.18	17.55	18.09	19.19	24.83	25.35	25.72	26.26	27.36
8H	4H	18.14	18.72	19.00	19.60	20.70	24.11	24.69	24.98	25.57	26.67
	6H	18.39	18.87	19.28	19.80	20.90	24.74	25.22	25.63	26.15	27.24
	8H	18.41	18.84	19.32	19.76	20.88	24.95	25.38	25.86	26.30	27.42
	12H	18.39	18.77	19.30	19.68	20.85	25.10	25.48	26.01	26.39	27.56
12H	4H	18.29	18.81	19.18	19.72	20.82	24.08	24.60	24.96	25.50	26.61
	6H	18.65	19.08	19.55	20.00	21.11	24.72	25.15	25.63	26.07	27.19
	8H	18.73	19.11	19.64	20.02	21.19	24.96	25.34	25.87	26.25	27.42