

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: P937685

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

**Test Information**

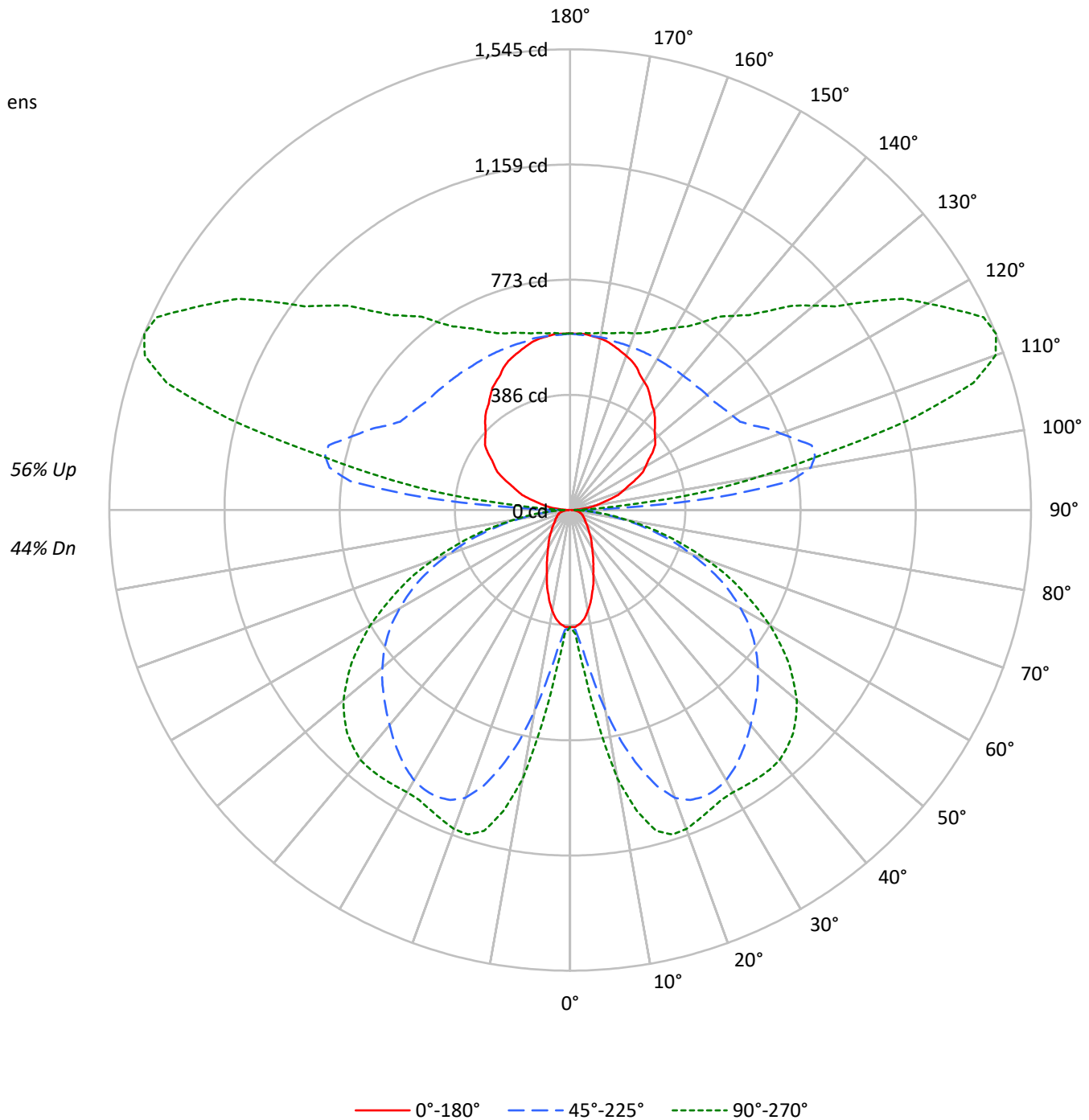
Test Method: LM-79-2019  
Report Number: P937685  
REPORT IS A COMBINATION OF REPORTS P933567 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-4-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6875.0 lumens  
Efficiency: N/A  
Efficacy: 118.5 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): 58  
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	
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

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

	0°	45°	90°
0°	3641	3641	3641
5°	3554	4205	4895
10°	3220	6127	8115
15°	2733	7998	9798
20°	2222	9262	9986
25°	1852	9684	9783
30°	1559	9738	9765
35°	1377	9569	10018
40°	1197	9350	10278
45°	1082	9189	10319
50°	991	9041	10148
55°	945	8829	9697
60°	964	8430	8988
65°	998	7829	8011
70°	1056	6814	6768
75°	1158	5541	5282
80°	1240	3828	3558
85°	1043	2020	1821

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10319 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.8	0.7
10°-20°	225.0	3.3
20°-30°	393.5	5.7
30°-40°	506.6	7.4
40°-50°	565.9	8.2
50°-60°	542.0	7.9
60°-70°	429.5	6.2
70°-80°	252.6	3.7
80°-90°	72.4	1.1
90°-100°	288.5	4.2
100°-110°	758.5	11.0
110°-120°	786.5	11.4
120°-130°	630.8	9.2
130°-140°	495.0	7.2
140°-150°	379.9	5.5
150°-160°	273.6	4.0
160°-170°	167.4	2.4
170°-180°	56.6	0.8
0°-30°	669.3	9.7
0°-40°	1175.9	17.1
0°-60°	2283.7	33.2
0°-90°	3038.2	44.2
90°-120°	1833.5	26.7
90°-150°	3339.2	48.6
90°-180°	3837.0	55.8
0°-180°	6875.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	392	392	392	392	392	
5°	382	410	462	522	541	35
15°	286	529	891	1080	1114	80
25°	183	599	1061	1108	1109	84
35°	124	573	999	1056	1098	77
45°	84	457	883	1012	1058	65
55°	60	290	750	871	895	55
65°	48	154	556	626	635	48
75°	35	95	305	336	337	37
85°	13	29	76	83	84	13
90°	4	11	30	15	15	4
95°	38	149	497	256	174	42
105°	137	207	839	1273	1188	145
115°	243	295	672	1340	1529	240
125°	338	379	611	1032	1218	300
135°	402	443	592	833	945	311
145°	467	496	584	711	767	292
155°	528	542	584	642	660	242
165°	569	577	584	607	615	161
175°	592	592	588	596	596	56
180°	592	592	592	592	592	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4
2.5°	392.4	392.4	395.0	396.2	398.7	400.0	402.5	405.0	412.7	413.9	416.4
5°	382.4	387.4	403.8	410.1	427.7	451.7	461.8	478.3	512.4	522.4	528.7
7.5°	367.2	378.6	419.0	429.1	473.2	536.3	562.8	598.1	652.4	678.9	700.3
10°	343.2	367.2	439.1	463.1	535.0	631.0	680.2	729.3	811.4	847.9	861.9
12.5°	316.8	355.8	460.6	493.4	596.9	737.0	796.3	850.5	943.9	993.1	1000.6
15°	286.4	339.4	480.7	528.7	662.5	825.3	890.9	957.8	1044.9	1080.2	1089.0
17.5°	260.0	326.8	499.7	550.2	713.0	904.8	971.6	1027.2	1097.9	1121.8	1128.1
20°	227.1	306.7	512.4	578.0	766.0	962.8	1027.2	1070.1	1118.0	1133.2	1135.7
22.5°	203.1	285.2	519.9	588.0	801.2	998.2	1052.4	1086.5	1119.3	1124.3	1125.6
25°	183.0	261.2	518.7	599.4	831.6	1019.6	1061.2	1086.5	1105.4	1107.9	1107.9
27.5°	164.1	234.7	513.6	601.9	854.2	1024.6	1057.5	1075.1	1083.9	1089.0	1089.0
30°	147.6	209.4	501.0	596.9	864.4	1019.6	1046.1	1054.9	1063.8	1071.3	1075.1
32.5°	135.0	185.5	482.1	586.8	865.6	1007.0	1025.9	1030.9	1043.5	1061.2	1067.6
35°	123.7	161.5	460.6	572.9	858.1	986.8	999.4	1004.5	1029.7	1056.2	1065.0
37.5°	112.3	143.8	432.8	548.9	846.7	962.8	971.6	980.5	1019.6	1051.2	1061.2
40°	100.9	128.7	400.0	522.4	829.0	933.8	941.3	955.3	1007.0	1043.5	1053.7
42.5°	92.2	116.1	364.7	494.7	806.3	900.9	912.3	932.6	991.9	1030.9	1042.3
45°	84.5	103.4	326.8	456.8	777.3	866.9	883.3	911.1	974.2	1012.0	1022.1
47.5°	77.0	94.6	287.7	417.7	745.8	832.9	854.2	885.9	950.2	986.8	995.6
50°	70.7	85.9	248.6	376.1	711.7	796.3	821.5	854.2	920.0	953.9	965.3
52.5°	65.6	78.2	212.0	334.4	672.6	758.4	787.4	821.5	883.3	916.1	923.7
55°	60.5	71.9	180.5	290.2	632.2	718.0	749.6	782.3	843.0	870.7	875.7
57.5°	58.1	66.8	153.9	248.6	589.3	672.6	707.9	738.2	794.9	816.4	821.5
60°	54.2	63.1	133.8	213.3	542.6	629.6	660.0	690.3	738.2	755.9	759.6
62.5°	50.5	60.5	118.6	179.2	494.7	579.2	609.5	637.3	677.7	690.3	695.3
65°	47.9	58.1	107.2	153.9	445.4	526.2	556.5	580.4	613.3	625.9	628.4
67.5°	45.5	55.5	98.5	132.5	396.2	473.2	495.9	518.7	543.9	556.5	557.7
70°	41.6	53.0	90.8	117.4	345.7	412.7	431.6	455.5	475.7	482.1	485.8
72.5°	39.2	49.2	85.9	106.0	294.0	354.6	372.3	386.1	403.8	410.1	410.1
75°	35.3	44.1	80.8	94.6	241.0	290.2	305.4	319.3	333.1	335.7	331.9
77.5°	31.5	39.2	69.4	79.5	188.0	229.7	242.3	249.8	261.2	263.8	265.0
80°	26.5	34.1	54.2	61.8	136.3	169.1	177.9	184.2	194.3	194.3	196.8
82.5°	20.2	26.5	39.2	44.1	92.2	116.1	123.7	127.5	133.8	133.8	133.8
85°	12.6	16.4	25.2	29.0	55.5	70.7	75.7	77.0	82.0	83.3	83.3
87.5°	6.3	8.8	16.4	17.7	29.0	36.6	36.6	39.2	39.2	37.8	36.6
90°	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.8	20.2	15.1	15.1
92.5°	15.9	42.9	69.9	76.7	107.8	149.3	170.0	149.0	107.0	75.4	72.5
95°	38.1	87.6	137.0	149.4	265.2	419.6	496.9	443.4	336.4	256.2	247.2
97.5°	65.9	109.5	153.2	164.1	357.3	614.8	743.6	709.8	642.1	591.4	574.1
100°	87.4	126.9	166.5	176.4	390.8	676.6	819.5	822.0	826.8	830.6	809.9
102.5°	105.6	142.6	179.4	188.7	406.2	696.0	841.0	884.0	970.2	1034.7	1017.1
105°	136.7	167.9	199.1	206.9	417.5	698.2	838.6	935.1	1128.2	1273.1	1263.7
107.5°	168.5	197.6	226.7	234.0	419.6	667.1	790.8	925.6	1195.0	1397.1	1399.4
110°	189.9	216.2	242.5	249.1	416.4	639.6	751.1	901.7	1202.9	1428.8	1438.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	211.0	236.0	261.0	267.3	416.6	615.5	715.0	869.1	1177.3	1408.5	1423.7
115°	242.7	265.8	288.9	294.7	420.4	588.0	671.7	820.2	1117.2	1339.9	1360.9
117.5°	274.1	295.1	316.1	321.4	428.2	570.7	642.0	775.9	1043.9	1244.9	1268.2
120°	292.3	312.1	331.9	336.8	434.5	564.9	630.0	752.4	997.3	1181.0	1203.7
122.5°	310.3	330.2	350.2	355.2	443.7	561.8	620.8	731.1	951.6	1117.0	1139.3
125°	337.7	355.8	374.0	378.6	456.0	559.2	610.9	704.6	891.9	1032.4	1053.0
127.5°	359.8	378.2	396.6	401.2	468.3	557.8	602.6	683.0	843.8	964.5	981.8
130°	371.8	391.6	411.3	416.3	477.3	558.8	599.5	671.1	814.2	921.6	937.6
132.5°	384.1	403.9	423.6	428.6	484.6	559.2	596.6	660.7	788.8	885.0	899.4
135°	402.4	420.4	438.4	442.9	492.6	558.8	591.9	645.6	752.8	833.3	845.7
137.5°	421.1	438.9	456.7	461.2	504.4	562.2	591.0	636.4	727.1	795.2	805.4
140°	436.5	453.0	469.4	473.5	511.8	562.8	588.3	627.4	705.8	764.7	774.1
142.5°	448.5	463.7	478.8	482.7	517.9	564.8	588.3	622.7	691.5	743.2	751.4
145°	466.7	480.0	493.2	496.5	525.8	564.9	584.4	612.5	668.8	711.0	717.2
147.5°	485.0	497.9	510.7	514.0	537.5	568.7	584.4	606.5	650.8	684.1	689.2
150°	496.9	508.5	520.2	523.1	543.6	570.8	584.4	603.1	640.4	668.5	672.6
152.5°	509.2	518.0	526.9	529.1	547.5	572.0	584.4	600.3	632.2	656.2	659.3
155°	527.5	534.0	540.6	542.2	556.3	575.0	584.4	597.1	622.5	641.5	643.6
157.5°	541.0	547.4	553.7	555.3	565.0	577.9	584.4	594.2	614.0	628.8	630.2
160°	550.2	555.1	560.0	561.3	569.0	579.2	584.4	592.9	609.8	622.5	623.3
162.5°	559.2	563.0	566.7	567.7	573.2	580.6	584.4	591.5	605.8	616.5	617.2
165°	569.2	572.5	575.9	576.7	579.3	582.6	584.4	589.5	599.7	607.4	608.2
167.5°	578.3	580.0	581.6	582.0	584.1	586.8	588.3	591.6	598.3	603.4	603.8
170°	584.4	585.9	587.5	587.9	588.0	588.2	588.3	591.6	598.3	603.4	603.4
172.5°	587.5	587.9	588.2	588.3	588.3	588.3	588.3	591.0	596.2	600.2	599.9
175°	591.9	591.9	591.9	591.9	590.7	589.0	588.3	590.0	593.3	595.8	595.8
177.5°	591.9	591.9	591.9	591.9	591.0	589.7	589.0	590.4	593.1	595.1	594.7
180°	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	392.4	392.4
2.5°	419.0	416.4
5°	538.8	541.4
7.5°	725.6	724.3
10°	902.3	913.6
12.5°	1030.9	1033.5
15°	1109.2	1114.2
17.5°	1139.5	1140.7
20°	1140.7	1138.2
22.5°	1126.9	1124.3
25°	1110.5	1109.2
27.5°	1095.3	1096.5
30°	1089.0	1092.8
32.5°	1089.0	1095.3
35°	1091.6	1097.9
37.5°	1090.2	1097.9
40°	1085.3	1094.0
42.5°	1071.3	1077.6
45°	1049.9	1057.5
47.5°	1022.1	1027.2
50°	986.8	991.9
52.5°	942.6	943.9
55°	889.6	894.6
57.5°	832.9	834.1
60°	769.7	773.6
62.5°	702.9	702.9
65°	632.2	634.7
67.5°	559.1	565.4
70°	484.6	485.8
72.5°	411.4	411.4
75°	335.7	336.9
77.5°	263.8	263.8
80°	195.6	196.8
82.5°	135.0	137.5
85°	84.5	84.5
87.5°	39.2	35.3
90°	15.1	15.1
92.5°	60.5	48.4
95°	210.8	174.4
97.5°	504.9	435.8
100°	727.5	645.1
102.5°	946.5	875.9
105°	1225.6	1187.7
107.5°	1408.5	1417.7
110°	1478.2	1517.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1484.5	1545.2
115°	1445.1	1529.3
117.5°	1361.6	1455.0
120°	1294.4	1385.1
122.5°	1228.9	1318.4
125°	1135.4	1217.9
127.5°	1051.5	1121.0
130°	1001.9	1066.2
132.5°	956.9	1014.5
135°	895.3	945.0
137.5°	846.0	886.6
140°	812.1	850.0
142.5°	784.1	816.7
145°	741.9	766.7
147.5°	709.7	730.1
150°	689.2	705.8
152.5°	671.8	684.4
155°	651.9	660.2
157.5°	636.1	642.0
160°	626.7	630.0
162.5°	620.5	623.6
165°	611.6	614.9
167.5°	605.1	606.5
170°	603.4	603.4
172.5°	598.7	597.4
175°	595.8	595.8
177.5°	593.3	591.9
180°	591.9	591.9



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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	4.92	5.77	5.92	6.78	8.13	18.07	18.91	19.06	19.92	21.27
	3H	5.63	6.39	6.64	7.41	8.78	19.89	20.65	20.90	21.67	23.04
	4H	5.93	6.65	6.95	7.67	9.05	20.52	21.24	21.54	22.27	23.64
	6H	6.18	6.84	7.21	7.87	9.26	20.94	21.60	21.97	22.63	24.02
	8H	6.25	6.88	7.28	7.92	9.31	21.05	21.69	22.09	22.73	24.12
	12H	6.26	6.86	7.31	7.90	9.32	21.11	21.72	22.16	22.76	24.17
4H	2H	12.12	12.83	13.14	13.86	15.24	18.34	19.06	19.37	20.08	21.46
	3H	13.68	14.29	14.72	15.34	16.73	20.37	20.97	21.41	22.02	23.42
	4H	13.78	14.33	14.82	15.38	16.79	21.12	21.68	22.17	22.72	24.13
	6H	13.79	14.26	14.84	15.33	16.74	21.65	22.13	22.70	23.20	24.60
	8H	13.76	14.21	14.82	15.27	16.69	21.80	22.25	22.86	23.31	24.74
	12H	13.72	14.12	14.79	15.20	16.63	21.89	22.29	22.96	23.37	24.80
8H	4H	15.21	15.66	16.27	16.72	18.14	21.18	21.63	22.24	22.69	24.11
	6H	15.45	15.82	16.53	16.92	18.35	21.80	22.17	22.88	23.27	24.69
	8H	15.47	15.79	16.56	16.88	18.32	22.01	22.34	23.10	23.42	24.86
	12H	15.44	15.72	16.53	16.81	18.29	22.15	22.43	23.24	23.51	24.99
12H	4H	15.35	15.75	16.42	16.83	18.26	21.14	21.54	22.21	22.61	24.04
	6H	15.71	16.03	16.79	17.12	18.56	21.78	22.11	22.87	23.19	24.63
	8H	15.78	16.06	16.87	17.14	18.62	22.00	22.29	23.10	23.37	24.85