

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: P937441

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937441
REPORT IS A COMBINATION OF REPORTS P933573 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

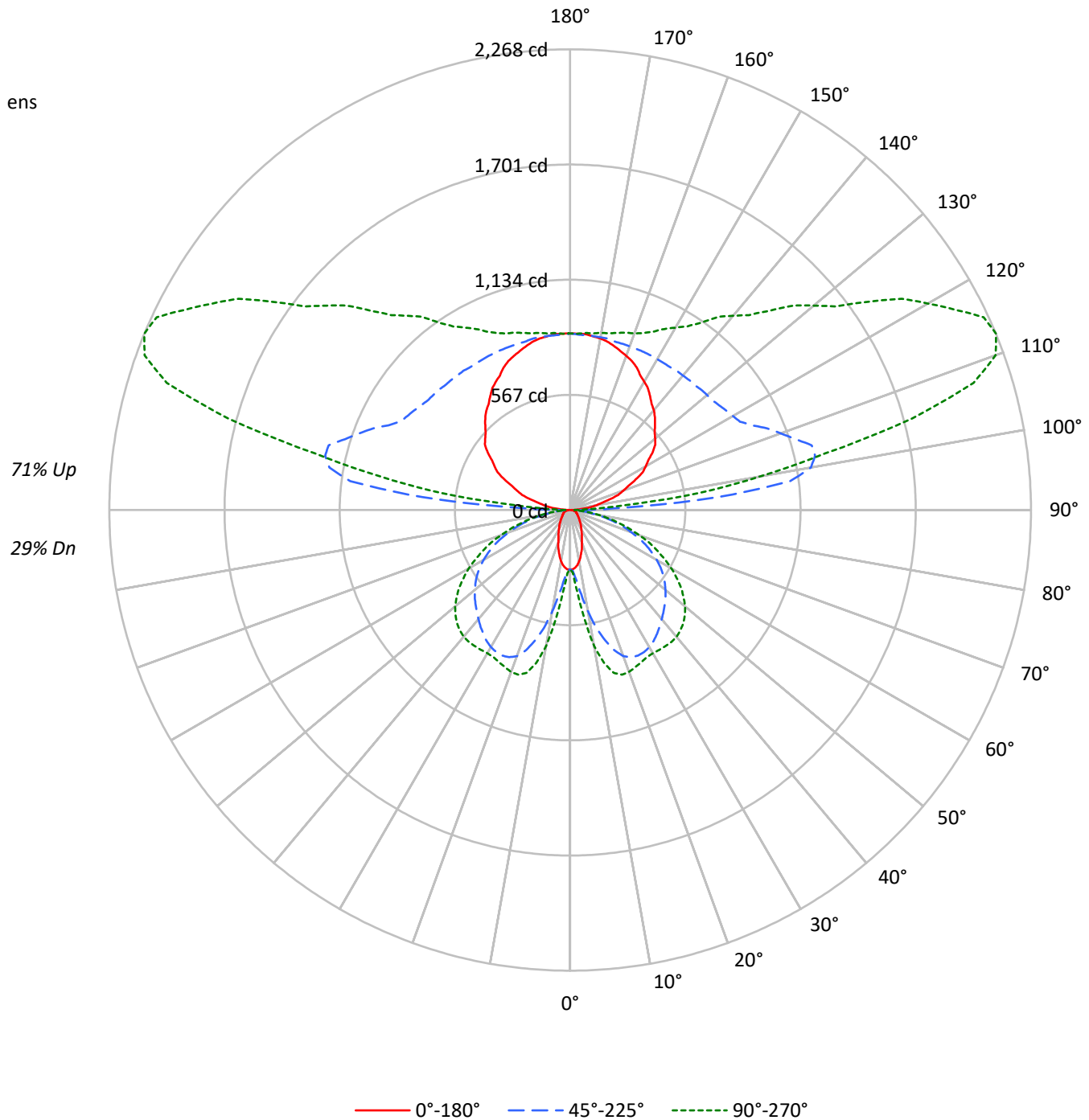
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7898.3 lumens
Efficiency: N/A
Efficacy: 127.8 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-Indirect

Input Watts (W): 61.8
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

TEST NUMBER: P937441
CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P937441

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

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	50	30	10	0
RCR																					
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19			19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7			7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1809	1809	1809
5°	1767	2090	2431
10°	1601	3046	4031
15°	1361	3978	4867
20°	1108	4609	4961
25°	924	4822	4860
30°	778	4852	4850
35°	688	4769	4976
40°	599	4664	5106
45°	542	4585	5126
50°	496	4515	5041
55°	475	4413	4817
60°	487	4217	4464
65°	505	3920	3979
70°	536	3416	3362
75°	594	2783	2624
80°	641	1927	1768
85°	560	1023	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5126 cd/sqm



TEST NUMBER: P937441

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	0.5
10°-20°	167.6	2.1
20°-30°	293.2	3.7
30°-40°	377.5	4.8
40°-50°	421.6	5.3
50°-60°	403.8	5.1
60°-70°	320.0	4.1
70°-80°	188.2	2.4
80°-90°	55.6	0.7
90°-100°	423.6	5.4
100°-110°	1113.6	14.1
110°-120°	1154.6	14.6
120°-130°	926.2	11.7
130°-140°	726.7	9.2
140°-150°	557.8	7.1
150°-160°	401.7	5.1
160°-170°	245.8	3.1
170°-180°	83.0	1.1
0°-30°	498.7	6.3
0°-40°	876.1	11.1
0°-60°	1701.5	21.5
0°-90°	2265.3	28.7
90°-120°	2691.8	34.1
90°-150°	4902.4	62.1
90°-180°	5633.0	71.3
0°-180°	7898.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	285	306	344	389	403	26
15°	213	394	664	805	830	59
25°	136	447	791	825	826	63
35°	92	427	745	787	818	58
45°	63	340	658	754	788	49
55°	45	216	558	649	667	41
65°	36	115	415	466	473	35
75°	26	70	228	250	251	28
85°	9	22	56	62	63	10
90°	6	16	44	22	22	5
95°	56	219	730	376	256	62
105°	201	304	1231	1869	1744	213
115°	356	433	986	1967	2245	352
125°	496	556	897	1516	1788	440
135°	591	650	869	1224	1387	457
145°	685	729	858	1044	1126	429
155°	774	796	858	942	969	356
165°	836	847	858	892	903	236
175°	869	869	864	875	875	82
180°	869	869	869	869	869	



TEST NUMBER: P937441

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4
2.5°	292.4	292.4	294.2	295.2	297.1	298.1	299.9	301.8	307.4	308.4	310.2
5°	284.9	288.6	300.9	305.6	318.7	336.6	344.1	356.3	381.7	389.2	394.0
7.5°	273.6	282.1	312.1	319.7	352.6	399.6	419.3	445.7	486.0	505.9	521.8
10°	255.7	273.6	327.1	345.1	398.7	470.1	506.8	543.4	604.6	631.8	642.1
12.5°	236.0	265.2	343.1	367.6	444.7	549.0	593.3	633.7	703.3	739.9	745.5
15°	213.4	252.9	358.2	394.0	493.6	614.8	663.7	713.6	778.5	804.8	811.4
17.5°	193.7	243.5	372.3	410.0	531.2	674.1	723.9	765.3	818.0	835.8	840.5
20°	169.3	228.4	381.7	430.6	570.7	717.4	765.3	797.3	833.0	844.3	846.2
22.5°	151.3	212.5	387.3	438.1	597.0	743.7	784.1	809.5	833.9	837.7	838.6
25°	136.4	194.6	386.4	446.6	619.6	759.6	790.7	809.5	823.6	825.4	825.4
27.5°	122.3	174.9	382.7	448.5	636.5	763.5	787.9	801.0	807.6	811.4	811.4
30°	110.0	156.1	373.2	444.7	644.0	759.6	779.5	786.0	792.5	798.2	801.0
32.5°	100.6	138.2	359.1	437.2	644.9	750.3	764.4	768.1	777.5	790.7	795.4
35°	92.2	120.4	343.1	426.9	639.3	735.2	744.6	748.4	767.2	786.9	793.5
37.5°	83.7	107.2	322.5	409.0	630.8	717.4	723.9	730.6	759.6	783.2	790.7
40°	75.2	95.9	298.1	389.2	617.7	695.7	701.4	711.7	750.3	777.5	785.1
42.5°	68.6	86.5	271.7	368.6	600.7	671.3	679.7	694.8	739.0	768.1	776.6
45°	63.0	77.1	243.5	340.3	579.1	645.9	658.1	678.8	725.8	754.0	761.5
47.5°	57.4	70.5	214.3	311.2	555.7	620.6	636.5	660.0	707.9	735.2	741.8
50°	52.6	63.9	185.3	280.1	530.3	593.3	612.0	636.5	685.4	710.8	719.3
52.5°	48.9	58.3	158.0	249.2	501.1	565.0	586.7	612.0	658.1	682.6	688.2
55°	45.1	53.6	134.4	216.2	471.0	534.9	558.5	582.9	628.0	648.7	652.5
57.5°	43.3	49.8	114.7	185.3	439.0	501.1	527.5	550.0	592.3	608.3	612.0
60°	40.5	47.0	99.6	158.9	404.3	469.1	491.7	514.3	550.0	563.2	566.0
62.5°	37.6	45.1	88.4	133.5	368.6	431.6	454.1	474.8	504.8	514.3	518.0
65°	35.7	43.3	79.9	114.7	331.9	392.0	414.6	432.5	456.9	466.3	468.2
67.5°	33.8	41.4	73.4	98.7	295.2	352.6	369.5	386.4	405.2	414.6	415.6
70°	31.0	39.4	67.7	87.4	257.6	307.4	321.5	339.4	354.4	359.1	362.0
72.5°	29.2	36.6	63.9	79.0	219.1	264.1	277.3	287.7	300.9	305.6	305.6
75°	26.4	32.9	60.2	70.5	179.6	216.2	227.5	237.9	248.2	250.1	247.2
77.5°	23.5	29.2	51.7	59.3	140.1	171.1	180.5	186.2	194.6	196.5	197.4
80°	19.7	25.4	40.5	46.1	101.5	126.0	132.5	137.3	144.8	144.8	146.7
82.5°	15.0	19.7	29.2	32.9	68.6	86.5	92.2	95.0	99.6	99.6	99.6
85°	9.4	12.2	18.8	21.6	41.4	52.6	56.5	57.4	61.1	62.1	62.1
87.5°	4.7	6.5	12.2	13.2	21.6	27.3	27.3	29.2	29.2	28.2	27.3
90°	5.8	10.5	15.1	16.4	25.7	38.1	44.3	39.4	29.5	22.2	22.2
92.5°	23.4	63.0	102.6	112.5	158.2	219.1	249.6	218.7	157.0	110.8	106.4
95°	56.0	128.5	201.1	219.3	389.4	616.2	729.5	651.0	493.9	376.1	362.8
97.5°	96.8	160.9	224.9	240.9	524.5	902.6	1091.7	1042.1	942.8	868.3	842.9
100°	128.3	186.4	244.4	258.9	573.6	993.2	1203.1	1206.7	1214.0	1219.4	1189.1
102.5°	155.2	209.4	263.5	277.0	596.2	1021.8	1234.6	1297.8	1424.3	1519.2	1493.3
105°	200.6	246.5	292.4	303.9	613.0	1025.1	1231.1	1372.9	1656.4	1869.0	1855.1
107.5°	247.2	290.0	332.8	343.5	616.1	979.4	1161.1	1358.9	1754.3	2051.0	2054.4
110°	278.7	317.3	356.0	365.7	611.4	939.0	1102.8	1323.8	1766.0	2097.7	2112.2



TEST NUMBER: P937441

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	309.7	346.5	383.3	392.5	611.6	903.7	1049.7	1276.0	1728.6	2067.9	2090.2
115°	356.3	390.2	424.2	432.7	617.2	863.1	986.1	1204.1	1640.1	1967.1	1998.0
117.5°	402.4	433.2	464.1	471.7	628.6	837.8	942.4	1139.1	1532.5	1827.6	1861.9
120°	429.2	458.3	487.3	494.6	638.0	829.3	924.9	1104.6	1464.1	1733.8	1767.1
122.5°	455.5	484.7	514.1	521.4	651.4	824.8	911.5	1073.4	1397.1	1639.8	1672.7
125°	495.7	522.4	549.1	555.8	669.5	821.1	896.9	1034.4	1309.4	1515.7	1546.0
127.5°	528.4	555.3	582.3	589.1	687.6	819.0	884.7	1002.8	1238.9	1416.0	1441.5
130°	545.9	574.9	603.9	611.2	700.8	820.3	880.0	985.1	1195.3	1353.0	1376.5
132.5°	563.9	593.0	622.0	629.2	711.5	821.1	875.9	970.0	1158.2	1299.3	1320.5
135°	590.7	617.2	643.6	650.3	723.2	820.3	868.9	947.7	1105.3	1223.5	1241.8
137.5°	618.1	644.3	670.6	677.1	740.7	825.4	867.8	934.4	1067.6	1167.5	1182.4
140°	640.9	665.0	689.2	695.1	751.3	826.2	863.7	921.2	1036.3	1122.6	1136.5
142.5°	658.4	680.7	703.0	708.6	760.3	829.2	863.7	914.2	1015.3	1091.1	1103.0
145°	685.2	704.7	724.1	729.0	772.0	829.3	857.9	899.2	981.9	1043.9	1052.9
147.5°	712.1	730.9	749.8	754.6	789.0	834.9	857.9	890.4	955.5	1004.2	1011.7
150°	729.5	746.6	763.7	768.0	798.0	837.9	857.9	885.4	940.2	981.4	987.5
152.5°	747.7	760.7	773.6	776.8	803.8	839.8	857.9	881.3	928.3	963.4	968.0
155°	774.5	784.0	793.6	796.0	816.7	844.1	857.9	876.6	913.9	941.8	944.9
157.5°	794.3	803.7	812.9	815.3	829.5	848.4	857.9	872.4	901.4	923.2	925.4
160°	807.7	815.0	822.3	824.0	835.3	850.4	857.9	870.3	895.2	913.9	915.1
162.5°	821.1	826.6	832.0	833.4	841.5	852.5	857.9	868.3	889.4	905.1	906.2
165°	835.7	840.6	845.5	846.8	850.5	855.4	857.9	865.4	880.4	891.7	892.9
167.5°	849.1	851.4	853.8	854.3	857.4	861.6	863.7	868.6	878.4	885.8	886.4
170°	857.9	860.2	862.5	863.1	863.3	863.6	863.7	868.6	878.4	885.8	885.8
172.5°	862.5	863.0	863.6	863.7	863.7	863.7	863.7	867.6	875.4	881.1	880.7
175°	868.9	868.9	868.9	868.9	867.1	864.8	863.7	866.1	871.1	874.8	874.8
177.5°	868.9	868.9	868.9	868.9	867.6	865.8	864.9	866.8	870.7	873.6	873.0
180°	868.9	868.9	868.9	868.9	868.9	868.9	868.9	868.9	868.9	868.9	868.9



TEST NUMBER: P937441

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	292.4	292.4
2.5°	312.1	310.2
5°	401.5	403.3
7.5°	540.6	539.7
10°	672.2	680.7
12.5°	768.1	770.0
15°	826.5	830.2
17.5°	849.0	849.9
20°	849.9	848.1
22.5°	839.6	837.7
25°	827.4	826.5
27.5°	816.1	817.0
30°	811.4	814.2
32.5°	811.4	816.1
35°	813.3	818.0
37.5°	812.4	818.0
40°	808.5	815.2
42.5°	798.2	802.9
45°	782.3	787.9
47.5°	761.5	765.3
50°	735.2	739.0
52.5°	702.3	703.3
55°	662.8	666.6
57.5°	620.6	621.5
60°	573.5	576.3
62.5°	523.7	523.7
65°	471.0	472.9
67.5°	416.5	421.2
70°	361.1	362.0
72.5°	306.5	306.5
75°	250.1	251.1
77.5°	196.5	196.5
80°	145.7	146.7
82.5°	100.6	102.4
85°	63.0	63.0
87.5°	29.2	26.4
90°	22.2	22.2
92.5°	88.7	71.1
95°	309.4	256.0
97.5°	741.3	639.7
100°	1068.1	947.0
102.5°	1389.5	1285.9
105°	1799.4	1743.7
107.5°	2067.9	2081.4
110°	2170.3	2228.3



TEST NUMBER: P937441

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2179.4	2268.5
115°	2121.6	2245.3
117.5°	1999.1	2136.2
120°	1900.4	2033.5
122.5°	1804.2	1935.6
125°	1667.0	1788.0
127.5°	1543.7	1645.7
130°	1470.9	1565.3
132.5°	1405.0	1489.5
135°	1314.6	1387.4
137.5°	1242.0	1301.7
140°	1192.3	1248.0
142.5°	1151.1	1199.0
145°	1089.3	1125.6
147.5°	1041.8	1071.9
150°	1011.9	1036.3
152.5°	986.4	1004.8
155°	957.0	969.2
157.5°	933.9	942.4
160°	920.0	924.9
162.5°	910.9	915.5
165°	897.9	902.7
167.5°	888.4	890.5
170°	885.8	885.8
172.5°	878.9	877.1
175°	874.8	874.8
177.5°	871.0	868.9
180°	868.9	868.9



TEST NUMBER: P937441

CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-6-5000K

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	0.69	1.40	1.80	2.52	4.06	13.85	14.57	14.97	15.68	17.23
	3H	1.38	2.02	2.50	3.14	4.70	15.67	16.32	16.80	17.44	19.00
	4H	1.67	2.28	2.80	3.40	4.97	16.31	16.92	17.44	18.04	19.61
	6H	1.91	2.48	3.06	3.60	5.18	16.73	17.29	17.87	18.42	19.99
	8H	1.98	2.51	3.12	3.65	5.22	16.84	17.38	17.99	18.52	20.09
	12H	1.99	2.50	3.14	3.63	5.23	16.90	17.41	18.05	18.55	20.14
4H	2H	7.87	8.49	9.02	9.61	11.17	14.11	14.72	15.25	15.84	17.41
	3H	9.43	9.94	10.58	11.09	12.67	16.14	16.65	17.28	17.79	19.37
	4H	9.52	9.99	10.67	11.13	12.72	16.89	17.36	18.04	18.50	20.10
	6H	9.52	9.92	10.68	11.08	12.67	17.42	17.82	18.57	18.98	20.57
	8H	9.49	9.87	10.65	11.02	12.63	17.57	17.95	18.73	19.10	20.71
	12H	9.44	9.78	10.61	10.95	12.56	17.66	18.00	18.83	19.16	20.77
8H	4H	10.95	11.32	12.10	12.47	14.08	16.94	17.32	18.10	18.47	20.07
	6H	11.18	11.49	12.36	12.69	14.29	17.56	17.87	18.73	19.06	20.66
	8H	11.20	11.47	12.38	12.64	14.26	17.77	18.04	18.95	19.22	20.84
	12H	11.16	11.40	12.35	12.57	14.22	17.91	18.15	19.09	19.32	20.97
12H	4H	11.08	11.42	12.25	12.59	14.20	16.89	17.23	18.06	18.39	20.00
	6H	11.44	11.71	12.62	12.88	14.50	17.54	17.81	18.72	18.98	20.61
	8H	11.50	11.74	12.69	12.91	14.56	17.76	18.00	18.95	19.17	20.82