

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: P938259

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938259
REPORT IS A COMBINATION OF REPORTS P933629 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

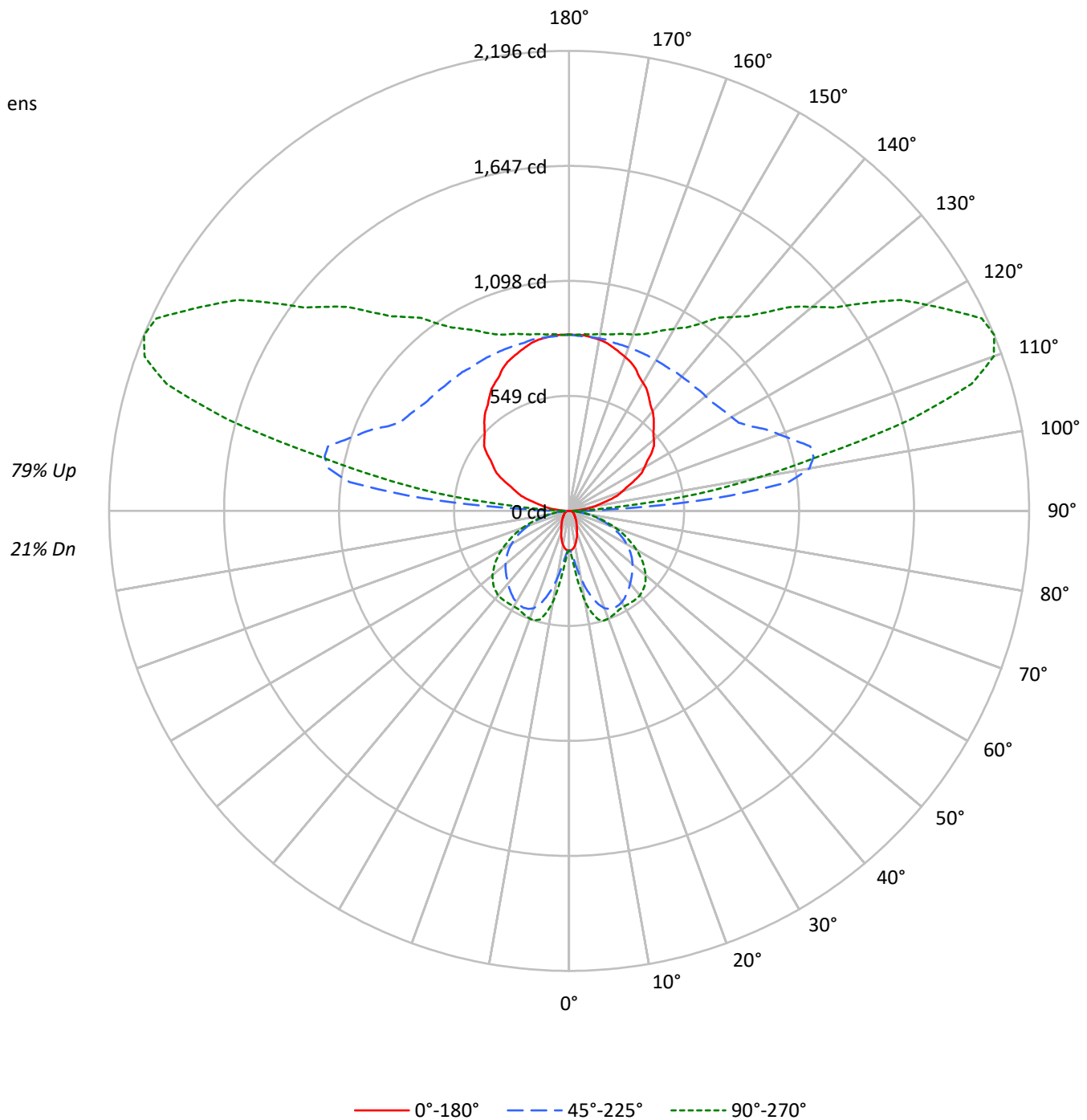
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6917.3 lumens
Efficiency: N/A
Efficacy: 124.4 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-Indirect

Input Watts (W): 55.6
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: P938259
CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P938259

CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	17	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1752	1752	1752
5°	1710	2023	2355
10°	1550	2948	3905
15°	1316	3849	4715
20°	1070	4457	4805
25°	892	4660	4708
30°	751	4686	4699
35°	662	4604	4821
40°	577	4500	4945
45°	520	4422	4966
50°	477	4351	4883
55°	455	4249	4666
60°	464	4057	4325
65°	481	3766	3855
70°	508	3277	3257
75°	557	2665	2541
80°	599	1842	1714
85°	505	974	875

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4966 cd/sqm



TEST NUMBER: P938259

CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.4	0.4
10°-20°	108.3	1.6
20°-30°	189.4	2.7
30°-40°	243.8	3.5
40°-50°	272.3	3.9
50°-60°	260.8	3.8
60°-70°	206.7	3.0
70°-80°	121.5	1.8
80°-90°	37.0	0.5
90°-100°	410.0	5.9
100°-110°	1078.0	15.6
110°-120°	1117.8	16.2
120°-130°	896.6	13.0
130°-140°	703.5	10.2
140°-150°	540.0	7.8
150°-160°	388.9	5.6
160°-170°	237.9	3.4
170°-180°	80.4	1.2
0°-30°	322.1	4.7
0°-40°	565.9	8.2
0°-60°	1099.0	15.9
0°-90°	1464.1	21.2
90°-120°	2605.9	37.7
90°-150°	4745.9	68.6
90°-180°	5453.0	78.8
0°-180°	6917.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	189	189	189	189	189	
5°	184	197	222	251	260	17
15°	138	254	429	520	536	38
25°	88	288	511	533	534	41
35°	60	276	481	508	528	37
45°	41	220	425	487	509	31
55°	29	140	361	419	430	27
65°	23	74	268	301	305	23
75°	17	46	147	162	162	18
85°	6	14	36	40	41	6
90°	6	16	43	22	22	5
95°	54	212	706	364	248	60
105°	194	294	1192	1809	1688	206
115°	345	419	955	1904	2174	341
125°	480	538	868	1467	1731	426
135°	572	629	841	1184	1343	442
145°	663	706	830	1010	1090	416
155°	750	771	830	912	938	344
165°	809	820	830	863	874	228
175°	841	841	836	847	847	80
180°	841	841	841	841	841	



TEST NUMBER: P938259

CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8	188.8
2.5°	188.8	188.8	190.1	190.6	191.9	192.5	193.7	194.9	198.6	199.1	200.4
5°	184.0	186.5	194.3	197.3	205.8	217.4	222.2	230.2	246.6	251.4	254.4
7.5°	176.7	182.2	201.6	206.5	227.7	258.1	270.8	287.8	313.9	326.7	337.0
10°	165.2	176.7	211.4	222.9	257.4	303.6	327.3	351.0	390.5	408.0	414.7
12.5°	152.4	171.3	221.7	237.4	287.2	354.6	383.2	409.3	454.2	477.9	481.5
15°	137.9	163.4	231.4	254.4	318.8	397.1	428.7	460.9	502.8	519.7	524.0
17.5°	125.1	157.3	240.5	264.8	343.1	435.4	467.6	494.3	528.3	539.8	542.8
20°	109.3	147.5	246.6	278.2	368.6	463.4	494.3	514.9	538.0	545.3	546.5
22.5°	97.8	137.2	250.2	283.0	385.6	480.3	506.4	522.8	538.6	541.0	541.6
25°	88.1	125.7	249.6	288.5	400.2	490.6	510.7	522.8	532.0	533.1	533.1
27.5°	78.9	113.0	247.1	289.7	411.1	493.0	508.9	517.4	521.6	524.0	524.0
30°	71.1	100.8	241.0	287.2	415.9	490.6	503.4	507.6	511.9	515.6	517.4
32.5°	65.0	89.2	232.0	282.3	416.6	484.5	493.7	496.1	502.2	510.7	513.7
35°	59.5	77.8	221.7	275.7	412.9	474.8	480.9	483.4	495.5	508.2	512.5
37.5°	54.0	69.2	208.3	264.1	407.4	463.4	467.6	471.9	490.6	505.8	510.7
40°	48.6	61.9	192.5	251.4	399.0	449.3	453.0	459.6	484.5	502.2	507.1
42.5°	44.4	55.8	175.5	238.1	388.0	433.6	439.0	448.8	477.3	496.1	501.5
45°	40.6	49.8	157.3	219.8	374.0	417.2	425.1	438.5	468.8	487.0	491.9
47.5°	37.0	45.5	138.5	201.0	358.9	400.8	411.1	426.2	457.3	474.8	479.1
50°	34.0	41.3	119.7	180.9	342.5	383.2	395.3	411.1	442.7	459.1	464.5
52.5°	31.6	37.7	102.0	160.9	323.7	365.0	378.9	395.3	425.1	440.8	444.5
55°	29.1	34.6	86.8	139.7	304.2	345.5	360.7	376.5	405.6	419.0	421.4
57.5°	28.0	32.2	74.0	119.7	283.6	323.7	340.6	355.2	382.5	392.8	395.3
60°	26.1	30.3	64.4	102.6	261.1	303.0	317.6	332.2	355.2	363.7	365.6
62.5°	24.3	29.1	57.1	86.3	238.1	278.7	293.3	306.7	326.0	332.2	334.5
65°	23.1	28.0	51.6	74.0	214.3	253.2	267.7	279.3	295.1	301.1	302.4
67.5°	21.9	26.7	47.3	63.7	190.6	227.7	238.6	249.6	261.7	267.7	268.4
70°	20.0	25.5	43.7	56.5	166.4	198.6	207.6	219.2	228.9	232.0	233.8
72.5°	18.8	23.7	41.3	51.1	141.5	170.6	179.1	185.8	194.3	197.3	197.3
75°	17.0	21.3	38.8	45.5	116.0	139.7	146.9	153.6	160.3	161.5	159.7
77.5°	15.2	18.8	33.4	38.3	90.5	110.5	116.6	120.2	125.7	126.9	127.5
80°	12.8	16.4	26.1	29.8	65.6	81.4	85.6	88.6	93.5	93.5	94.8
82.5°	9.7	12.8	18.8	21.3	44.4	55.8	59.5	61.4	64.4	64.4	64.4
85°	6.1	7.9	12.1	13.9	26.7	34.0	36.5	37.0	39.5	40.1	40.1
87.5°	3.1	4.3	7.9	8.5	13.9	17.7	17.7	18.8	18.8	18.2	17.7
90°	5.6	10.1	14.7	15.8	24.9	36.9	42.9	38.1	28.6	21.5	21.5
92.5°	22.5	60.9	99.4	109.0	153.2	212.1	241.6	211.7	152.1	107.3	103.0
95°	54.2	124.5	194.7	212.3	376.9	596.5	706.3	630.3	478.2	364.1	351.2
97.5°	93.7	155.7	217.7	233.2	507.7	873.8	1056.9	1008.8	912.7	840.6	816.0
100°	124.2	180.4	236.6	250.6	555.3	961.6	1164.7	1168.2	1175.3	1180.5	1151.2
102.5°	150.2	202.7	255.1	268.2	577.2	989.2	1195.2	1256.4	1378.8	1470.7	1445.6
105°	194.2	238.7	283.0	294.2	593.3	992.2	1191.7	1329.0	1603.5	1809.4	1795.9
107.5°	239.4	280.8	322.2	332.6	596.4	948.2	1124.0	1315.5	1698.4	1985.6	1988.8
110°	269.8	307.2	344.7	354.0	591.9	909.0	1067.5	1281.6	1709.7	2030.7	2044.8



TEST NUMBER: P938259

CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	299.8	335.5	371.1	380.0	592.1	874.8	1016.2	1235.3	1673.4	2001.9	2023.5
115°	345.0	377.8	410.7	418.9	597.5	835.6	954.7	1165.7	1587.7	1904.3	1934.2
117.5°	389.6	419.5	449.3	456.7	608.6	811.1	912.3	1102.8	1483.6	1769.3	1802.5
120°	415.5	443.6	471.7	478.7	617.6	802.8	895.4	1069.4	1417.4	1678.4	1710.7
122.5°	440.9	469.2	497.7	504.7	630.6	798.5	882.4	1039.1	1352.5	1587.6	1619.3
125°	479.9	505.7	531.6	538.0	648.1	794.9	868.3	1001.4	1267.6	1467.3	1496.6
127.5°	511.5	537.6	563.6	570.2	665.6	792.8	856.5	970.8	1199.3	1370.8	1395.5
130°	528.4	556.5	584.6	591.6	678.4	794.1	851.9	953.7	1157.2	1309.8	1332.6
132.5°	545.9	574.1	602.1	609.2	688.7	794.9	848.0	939.0	1121.2	1257.8	1278.3
135°	571.9	597.5	623.0	629.4	700.1	794.1	841.2	917.5	1070.0	1184.4	1202.1
137.5°	598.4	623.7	649.1	655.4	717.0	799.1	840.1	904.5	1033.5	1130.3	1144.7
140°	620.5	643.8	667.2	673.0	727.4	799.9	836.1	891.8	1003.2	1086.7	1100.2
142.5°	637.4	659.0	680.5	685.9	736.0	802.7	836.1	885.1	982.9	1056.3	1067.9
145°	663.4	682.2	701.0	705.7	747.3	802.8	830.5	870.5	950.5	1010.5	1019.3
147.5°	689.3	707.7	725.9	730.6	763.9	808.3	830.5	862.0	924.9	972.1	979.4
150°	706.3	722.9	739.3	743.5	772.5	811.1	830.5	857.1	910.2	950.1	956.0
152.5°	723.8	736.3	748.8	752.0	778.2	813.0	830.5	853.2	898.6	932.7	937.1
155°	749.7	759.1	768.3	770.7	790.6	817.2	830.5	848.6	884.7	911.8	914.8
157.5°	768.9	778.0	786.9	789.2	803.0	821.3	830.5	844.5	872.6	893.7	895.7
160°	781.9	788.9	796.0	797.7	808.7	823.2	830.5	842.5	866.6	884.6	885.8
162.5°	794.9	800.2	805.4	806.8	814.6	825.2	830.5	840.6	861.0	876.2	877.3
165°	809.0	813.7	818.5	819.7	823.3	828.1	830.5	837.7	852.3	863.2	864.3
167.5°	822.0	824.2	826.5	827.0	830.0	834.1	836.1	840.9	850.4	857.5	858.1
170°	830.5	832.7	835.0	835.6	835.7	836.0	836.1	840.9	850.4	857.5	857.5
172.5°	835.0	835.5	836.0	836.1	836.1	836.1	836.1	839.9	847.4	853.0	852.6
175°	841.2	841.2	841.2	841.2	839.4	837.2	836.1	838.5	843.2	846.9	846.9
177.5°	841.2	841.2	841.2	841.2	839.9	838.2	837.3	839.2	842.9	845.7	845.1
180°	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2	841.2



TEST NUMBER: P938259

CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	188.8	188.8
2.5°	201.6	200.4
5°	259.3	260.5
7.5°	349.1	348.6
10°	434.2	439.6
12.5°	496.1	497.3
15°	533.8	536.2
17.5°	548.3	549.0
20°	549.0	547.7
22.5°	542.3	541.0
25°	534.4	533.8
27.5°	527.1	527.7
30°	524.0	525.9
32.5°	524.0	527.1
35°	525.3	528.3
37.5°	524.6	528.3
40°	522.2	526.4
42.5°	515.6	518.6
45°	505.2	508.9
47.5°	491.9	494.3
50°	474.8	477.3
52.5°	453.6	454.2
55°	428.1	430.5
57.5°	400.8	401.3
60°	370.4	372.2
62.5°	338.3	338.3
65°	304.2	305.4
67.5°	269.0	272.0
70°	233.2	233.8
72.5°	198.0	198.0
75°	161.5	162.1
77.5°	126.9	126.9
80°	94.1	94.8
82.5°	65.0	66.2
85°	40.6	40.6
87.5°	18.8	17.0
90°	21.5	21.5
92.5°	85.9	68.9
95°	299.5	247.8
97.5°	717.7	619.3
100°	1034.1	916.8
102.5°	1345.3	1244.9
105°	1742.0	1688.0
107.5°	2001.9	2014.9
110°	2101.0	2157.2



TEST NUMBER: P938259

CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2109.8	2196.1
115°	2053.9	2173.6
117.5°	1935.2	2067.9
120°	1839.6	1968.6
122.5°	1746.6	1873.8
125°	1613.7	1730.9
127.5°	1494.3	1593.2
130°	1423.9	1515.2
132.5°	1360.0	1441.8
135°	1272.6	1343.1
137.5°	1202.4	1260.1
140°	1154.2	1208.1
142.5°	1114.3	1160.7
145°	1054.5	1089.6
147.5°	1008.5	1037.7
150°	979.7	1003.2
152.5°	954.9	972.7
155°	926.5	938.3
157.5°	904.0	912.3
160°	890.6	895.4
162.5°	881.8	886.3
165°	869.1	873.9
167.5°	860.1	862.1
170°	857.5	857.5
172.5°	850.9	849.1
175°	846.9	846.9
177.5°	843.2	841.2
180°	841.2	841.2



TEST NUMBER: P938259
 CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-4000K

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	0.00	0.02	0.53	1.18	2.81	12.50	13.17	13.67	14.32	15.95
	3H	0.05	0.65	1.22	1.81	3.45	14.31	14.91	15.49	16.07	17.71
	4H	0.34	0.91	1.52	2.07	3.72	14.94	15.51	16.12	16.67	18.32
	6H	0.58	1.10	1.77	2.27	3.93	15.35	15.87	16.54	17.03	18.69
	8H	0.64	1.14	1.84	2.32	3.97	15.45	15.95	16.65	17.13	18.78
	12H	0.66	1.13	1.85	2.30	3.97	15.51	15.98	16.70	17.15	18.83
4H	2H	6.53	7.10	7.72	8.26	9.91	12.76	13.32	13.95	14.48	16.13
	3H	8.08	8.55	9.28	9.74	11.40	14.77	15.24	15.96	16.43	18.09
	4H	8.17	8.60	9.36	9.78	11.46	15.52	15.95	16.71	17.13	18.80
	6H	8.17	8.54	9.37	9.74	11.40	16.03	16.40	17.23	17.60	19.27
	8H	8.14	8.49	9.34	9.68	11.36	16.18	16.53	17.38	17.72	19.40
	12H	8.09	8.40	9.30	9.60	11.29	16.25	16.57	17.47	17.77	19.46
8H	4H	9.59	9.93	10.78	11.12	12.81	15.56	15.91	16.76	17.10	18.78
	6H	9.82	10.11	11.04	11.34	13.02	16.17	16.45	17.38	17.69	19.37
	8H	9.83	10.08	11.06	11.29	12.99	16.38	16.63	17.60	17.83	19.54
	12H	9.79	10.01	11.02	11.22	12.95	16.50	16.72	17.73	17.93	19.66
12H	4H	9.72	10.03	10.93	11.23	12.92	15.50	15.82	16.72	17.02	18.71
	6H	10.07	10.32	11.29	11.53	13.23	16.15	16.40	17.37	17.60	19.31
	8H	10.13	10.35	11.36	11.56	13.29	16.36	16.58	17.59	17.79	19.52