

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: P938236

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-4-6500K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938236  
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-92765-1D-UNV-STD-W-4-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

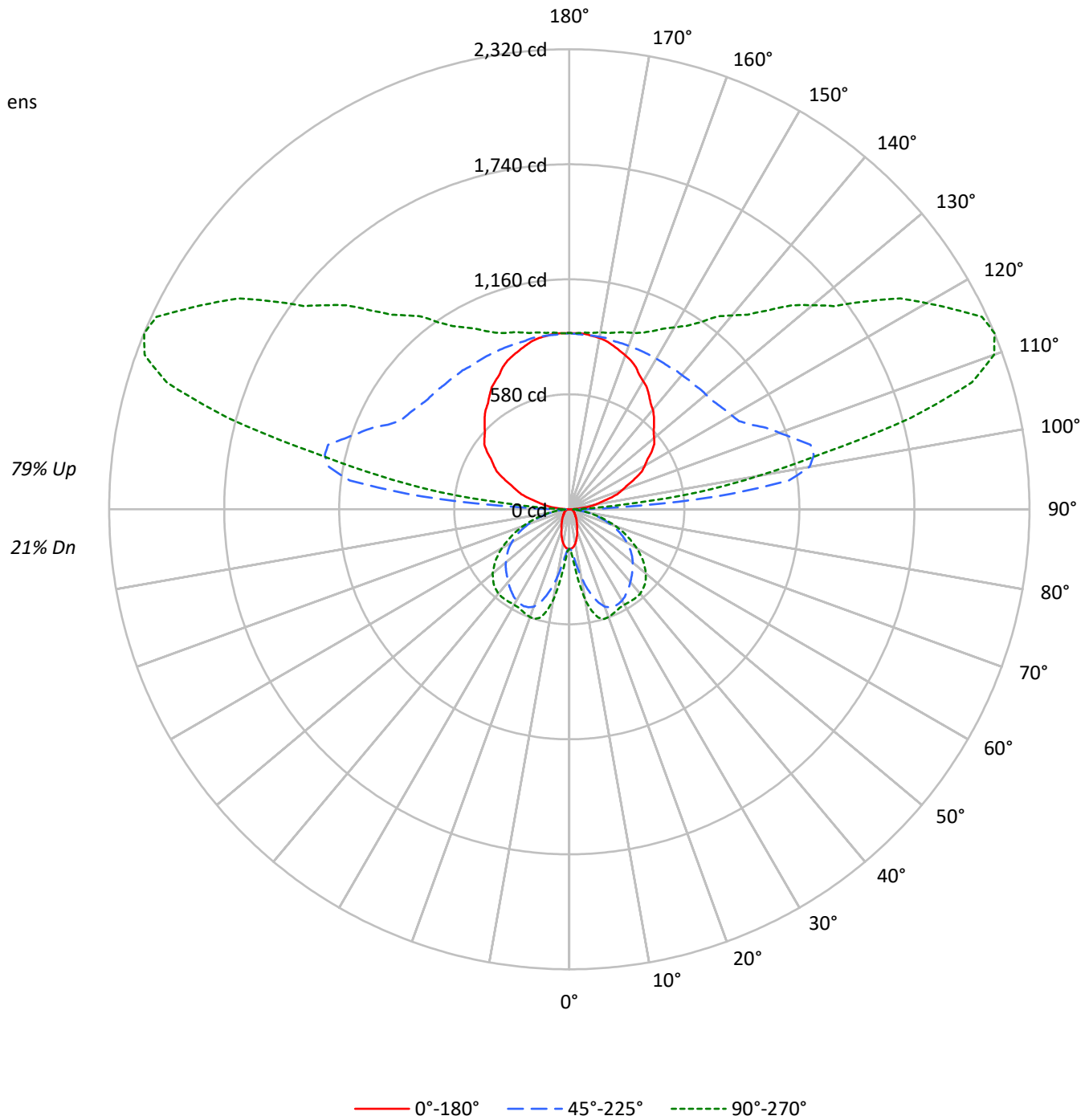
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7307.3 lumens  
Efficiency: N/A  
Efficacy: 131.4 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<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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CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-4-6500K

### 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	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°	1851	1851	1851
5°	1807	2137	2488
10°	1637	3115	4125
15°	1389	4066	4981
20°	1130	4708	5076
25°	941	4923	4974
30°	793	4950	4964
35°	699	4864	5092
40°	609	4754	5224
45°	549	4671	5246
50°	505	4596	5159
55°	481	4488	4930
60°	489	4285	4569
65°	508	3978	4072
70°	536	3464	3441
75°	590	2816	2685
80°	632	1948	1810
85°	530	1028	924

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5246 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.8	0.4
10°-20°	114.4	1.6
20°-30°	200.1	2.7
30°-40°	257.5	3.5
40°-50°	287.7	3.9
50°-60°	275.5	3.8
60°-70°	218.3	3.0
70°-80°	128.4	1.8
80°-90°	39.1	0.5
90°-100°	433.2	5.9
100°-110°	1138.8	15.6
110°-120°	1180.8	16.2
120°-130°	947.2	13.0
130°-140°	743.2	10.2
140°-150°	570.4	7.8
150°-160°	410.8	5.6
160°-170°	251.3	3.4
170°-180°	84.9	1.2
0°-30°	340.2	4.7
0°-40°	597.8	8.2
0°-60°	1160.9	15.9
0°-90°	1546.7	21.2
90°-120°	2752.8	37.7
90°-150°	5013.5	68.6
90°-180°	5761.0	78.8
0°-180°	7307.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	200	200	200	200	200	
5°	194	208	235	266	275	18
15°	146	269	453	549	566	41
25°	93	305	540	563	564	43
35°	63	291	508	537	558	39
45°	43	232	449	514	538	33
55°	31	148	381	443	455	28
65°	24	78	283	318	323	24
75°	18	48	155	171	171	19
85°	6	15	38	42	43	7
90°	6	17	45	23	23	5
95°	57	224	746	385	262	64
105°	205	311	1259	1911	1783	217
115°	364	442	1008	2012	2296	360
125°	507	568	917	1550	1828	450
135°	604	665	889	1251	1419	467
145°	701	745	877	1068	1151	439
155°	792	814	877	963	991	364
165°	855	866	877	912	923	241
175°	889	889	883	895	895	84
180°	889	889	889	889	889	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	199.5	199.5	199.5	199.5	199.5	199.5	199.5	199.5	199.5	199.5	199.5
2.5°	199.5	199.5	200.8	201.4	202.7	203.4	204.6	205.9	209.8	210.4	211.7
5°	194.4	197.0	205.3	208.5	217.4	229.7	234.7	243.2	260.5	265.5	268.8
7.5°	186.6	192.5	212.9	218.1	240.6	272.6	286.1	304.1	331.6	345.1	356.0
10°	174.5	186.6	223.3	235.4	271.9	320.7	345.8	370.8	412.5	431.1	438.1
12.5°	161.0	180.9	234.2	250.8	303.4	374.6	404.8	432.4	479.8	504.9	508.7
15°	145.6	172.6	244.4	268.8	336.8	419.5	452.9	486.9	531.2	549.0	553.5
17.5°	132.1	166.2	254.1	279.7	362.4	459.9	494.0	522.2	558.0	570.3	573.4
20°	115.5	155.9	260.5	293.8	389.4	489.5	522.2	544.0	568.4	576.0	577.3
22.5°	103.3	145.0	264.3	298.9	407.3	507.4	535.0	552.3	568.9	571.5	572.2
25°	93.0	132.8	263.6	304.7	422.7	518.3	539.5	552.3	562.0	563.2	563.2
27.5°	83.4	119.3	261.0	306.0	434.3	520.8	537.6	546.6	551.1	553.5	553.5
30°	75.1	106.5	254.6	303.4	439.4	518.3	531.7	536.2	540.7	544.6	546.6
32.5°	68.7	94.3	245.1	298.2	440.0	511.9	521.5	524.1	530.5	539.5	542.6
35°	62.8	82.1	234.2	291.3	436.2	501.6	508.0	510.6	523.4	536.9	541.4
37.5°	57.1	73.1	220.0	279.0	430.4	489.5	494.0	498.5	518.3	534.3	539.5
40°	51.3	65.4	203.4	265.5	421.5	474.7	478.6	485.6	511.9	530.5	535.7
42.5°	46.9	59.0	185.4	251.5	409.9	458.0	463.8	474.1	504.2	524.1	529.8
45°	42.9	52.6	166.2	232.2	395.1	440.7	449.0	463.2	495.2	514.4	519.6
47.5°	39.1	48.1	146.3	212.4	379.1	423.4	434.3	450.3	483.1	501.6	506.1
50°	36.0	43.6	126.4	191.1	361.8	404.8	417.6	434.3	467.7	485.0	490.7
52.5°	33.4	39.8	107.8	170.0	341.9	385.5	400.3	417.6	449.0	465.7	469.6
55°	30.8	36.5	91.7	147.5	321.4	365.0	381.0	397.7	428.5	442.6	445.2
57.5°	29.5	34.0	78.2	126.4	299.6	341.9	359.8	375.2	404.1	415.0	417.6
60°	27.5	32.0	68.0	108.4	275.9	320.1	335.5	350.9	375.2	384.2	386.2
62.5°	25.6	30.8	60.3	91.1	251.5	294.4	309.8	324.0	344.4	350.9	353.4
65°	24.4	29.5	54.5	78.2	226.4	267.4	282.8	295.1	311.7	318.1	319.5
67.5°	23.1	28.2	50.0	67.3	201.4	240.6	252.1	263.6	276.4	282.8	283.5
70°	21.1	27.0	46.2	59.7	175.7	209.8	219.4	231.6	241.8	245.1	247.0
72.5°	19.9	25.1	43.6	53.9	149.5	180.2	189.2	196.3	205.3	208.5	208.5
75°	18.0	22.5	41.0	48.1	122.5	147.5	155.2	162.3	169.3	170.6	168.7
77.5°	16.1	19.9	35.3	40.4	95.6	116.8	123.2	127.0	132.8	134.1	134.7
80°	13.5	17.3	27.5	31.5	69.3	86.0	90.5	93.6	98.8	98.8	100.1
82.5°	10.2	13.5	19.9	22.5	46.9	59.0	62.8	64.8	68.0	68.0	68.0
85°	6.4	8.3	12.8	14.7	28.2	36.0	38.5	39.1	41.7	42.4	42.4
87.5°	3.3	4.5	8.3	9.0	14.7	18.6	18.6	19.9	19.9	19.2	18.6
90°	5.9	10.7	15.5	16.7	26.3	39.0	45.3	40.3	30.2	22.7	22.7
92.5°	23.8	64.4	105.0	115.1	161.8	224.0	255.2	223.7	160.6	113.3	108.8
95°	57.3	131.5	205.7	224.2	398.2	630.1	746.1	665.8	505.2	384.7	371.0
97.5°	99.0	164.5	230.0	246.3	536.3	923.1	1116.5	1065.7	964.1	888.0	862.0
100°	131.2	190.6	249.9	264.8	586.6	1015.8	1230.3	1234.1	1241.5	1247.1	1216.1
102.5°	158.6	214.1	269.5	283.3	609.8	1044.9	1262.6	1327.2	1456.6	1553.6	1527.1
105°	205.2	252.1	299.0	310.8	626.8	1048.2	1258.9	1403.9	1693.9	1911.4	1897.2
107.5°	252.9	296.6	340.4	351.3	630.0	1001.6	1187.4	1389.6	1794.1	2097.5	2100.9
110°	285.0	324.5	364.1	374.0	625.3	960.2	1127.7	1353.9	1806.1	2145.2	2160.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	316.7	354.4	392.0	401.4	625.4	924.2	1073.5	1304.9	1767.7	2114.8	2137.6
115°	364.4	399.1	433.8	442.5	631.2	882.8	1008.5	1231.4	1677.3	2011.6	2043.3
117.5°	411.5	443.1	474.7	482.5	642.9	856.8	963.7	1164.9	1567.3	1869.1	1904.2
120°	438.9	468.6	498.3	505.7	652.4	848.0	945.9	1129.6	1497.3	1773.1	1807.1
122.5°	465.8	495.7	525.7	533.2	666.2	843.6	932.2	1097.7	1428.7	1677.1	1710.6
125°	507.0	534.2	561.6	568.4	684.6	839.7	917.3	1057.8	1339.1	1550.0	1581.0
127.5°	540.3	567.9	595.4	602.3	703.1	837.5	904.7	1025.5	1267.0	1448.1	1474.2
130°	558.2	587.9	617.5	625.0	716.7	838.9	900.0	1007.4	1222.4	1383.6	1407.7
132.5°	576.7	606.4	636.1	643.5	727.6	839.7	895.8	992.0	1184.4	1328.7	1350.3
135°	604.1	631.2	658.1	664.9	739.5	838.9	888.6	969.2	1130.3	1251.2	1269.8
137.5°	632.1	658.9	685.7	692.4	757.4	844.1	887.4	955.5	1091.8	1194.0	1209.2
140°	655.5	680.1	704.8	710.9	768.4	845.0	883.2	942.0	1059.7	1148.0	1162.3
142.5°	673.4	696.1	718.9	724.6	777.5	848.0	883.2	935.0	1038.3	1115.9	1128.1
145°	700.8	720.7	740.5	745.4	789.4	848.0	877.3	919.6	1004.1	1067.5	1076.8
147.5°	728.1	747.6	766.9	771.7	806.9	853.9	877.3	910.6	977.0	1027.0	1034.6
150°	746.1	763.6	781.0	785.4	816.0	856.8	877.3	905.4	961.5	1003.7	1009.9
152.5°	764.6	777.9	791.1	794.4	822.0	858.9	877.3	901.3	949.3	985.3	989.9
155°	792.0	801.9	811.6	814.1	835.1	863.3	877.3	896.4	934.6	963.2	966.3
157.5°	812.3	821.8	831.3	833.7	848.2	867.6	877.3	892.1	921.8	944.0	946.2
160°	826.0	833.4	840.9	842.7	854.3	869.7	877.3	890.0	915.5	934.5	935.7
162.5°	839.7	845.3	850.8	852.3	860.6	871.8	877.3	888.0	909.5	925.6	926.7
165°	854.6	859.6	864.7	865.9	869.8	874.8	877.3	885.0	900.4	911.8	913.1
167.5°	868.3	870.7	873.1	873.7	876.8	881.1	883.2	888.3	898.3	905.9	906.5
170°	877.3	879.7	882.1	882.7	882.9	883.1	883.2	888.3	898.3	905.9	905.9
172.5°	882.1	882.6	883.1	883.2	883.2	883.2	883.2	887.3	895.2	901.1	900.6
175°	888.6	888.6	888.6	888.6	886.8	884.4	883.2	885.7	890.8	894.6	894.6
177.5°	888.6	888.6	888.6	888.6	887.3	885.4	884.5	886.5	890.4	893.4	892.8
180°	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6	888.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	199.5	199.5
2.5°	212.9	211.7
5°	273.9	275.2
7.5°	368.8	368.2
10°	458.7	464.4
12.5°	524.1	525.3
15°	563.9	566.4
17.5°	579.3	579.9
20°	579.9	578.6
22.5°	572.9	571.5
25°	564.5	563.9
27.5°	556.8	557.5
30°	553.5	555.5
32.5°	553.5	556.8
35°	554.9	558.0
37.5°	554.2	558.0
40°	551.6	556.1
42.5°	544.6	547.8
45°	533.7	537.6
47.5°	519.6	522.2
50°	501.6	504.2
52.5°	479.1	479.8
55°	452.3	454.8
57.5°	423.4	424.0
60°	391.3	393.2
62.5°	357.3	357.3
65°	321.4	322.6
67.5°	284.2	287.3
70°	246.3	247.0
72.5°	209.1	209.1
75°	170.6	171.3
77.5°	134.1	134.1
80°	99.4	100.1
82.5°	68.7	69.9
85°	42.9	42.9
87.5°	19.9	18.0
90°	22.7	22.7
92.5°	90.7	72.8
95°	316.4	261.8
97.5°	758.2	654.2
100°	1092.4	968.5
102.5°	1421.1	1315.1
105°	1840.2	1783.2
107.5°	2114.7	2128.5
110°	2219.4	2278.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2228.8	2319.9
115°	2169.7	2296.1
117.5°	2044.3	2184.5
120°	1943.4	2079.6
122.5°	1845.1	1979.4
125°	1704.7	1828.5
127.5°	1578.6	1683.0
130°	1504.2	1600.7
132.5°	1436.7	1523.1
135°	1344.3	1418.8
137.5°	1270.2	1331.1
140°	1219.2	1276.2
142.5°	1177.2	1226.1
145°	1114.0	1151.1
147.5°	1065.4	1096.2
150°	1034.9	1059.7
152.5°	1008.8	1027.5
155°	978.8	991.2
157.5°	954.9	963.7
160°	940.8	945.9
162.5°	931.5	936.3
165°	918.1	923.2
167.5°	908.6	910.7
170°	905.9	905.9
172.5°	898.8	897.0
175°	894.6	894.6
177.5°	890.7	888.6
180°	888.6	888.6



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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	0.00	0.22	0.72	1.37	3.00	12.69	13.36	13.86	14.51	16.14
	3H	0.24	0.84	1.42	2.00	3.65	14.50	15.10	15.68	16.26	17.91
	4H	0.54	1.10	1.72	2.26	3.91	15.13	15.70	16.31	16.86	18.51
	6H	0.78	1.30	1.97	2.46	4.12	15.54	16.06	16.73	17.22	18.88
	8H	0.84	1.33	2.03	2.51	4.16	15.65	16.14	16.84	17.32	18.97
	12H	0.85	1.32	2.04	2.49	4.17	15.70	16.17	16.89	17.34	19.02
4H	2H	6.72	7.29	7.91	8.45	10.10	12.95	13.51	14.14	14.67	16.32
	3H	8.27	8.75	9.47	9.93	11.59	14.96	15.43	16.15	16.62	18.28
	4H	8.36	8.80	9.55	9.97	11.65	15.71	16.14	16.90	17.32	19.00
	6H	8.36	8.73	9.56	9.93	11.60	16.22	16.59	17.42	17.79	19.46
	8H	8.33	8.68	9.53	9.87	11.55	16.37	16.72	17.57	17.91	19.59
	12H	8.28	8.59	9.49	9.79	11.48	16.45	16.76	17.66	17.96	19.65
8H	4H	9.78	10.12	10.97	11.31	13.00	15.75	16.10	16.95	17.29	18.97
	6H	10.01	10.30	11.23	11.53	13.21	16.36	16.65	17.57	17.88	19.56
	8H	10.02	10.28	11.25	11.48	13.18	16.57	16.82	17.79	18.02	19.73
	12H	9.98	10.20	11.21	11.41	13.14	16.69	16.91	17.92	18.12	19.85
12H	4H	9.91	10.22	11.12	11.42	13.11	15.69	16.01	16.91	17.21	18.90
	6H	10.26	10.51	11.48	11.72	13.42	16.34	16.59	17.56	17.80	19.50
	8H	10.32	10.54	11.55	11.75	13.48	16.55	16.77	17.78	17.98	19.71