

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: P937487

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937487
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-B2750-1D-UNV-W2A-W-6-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

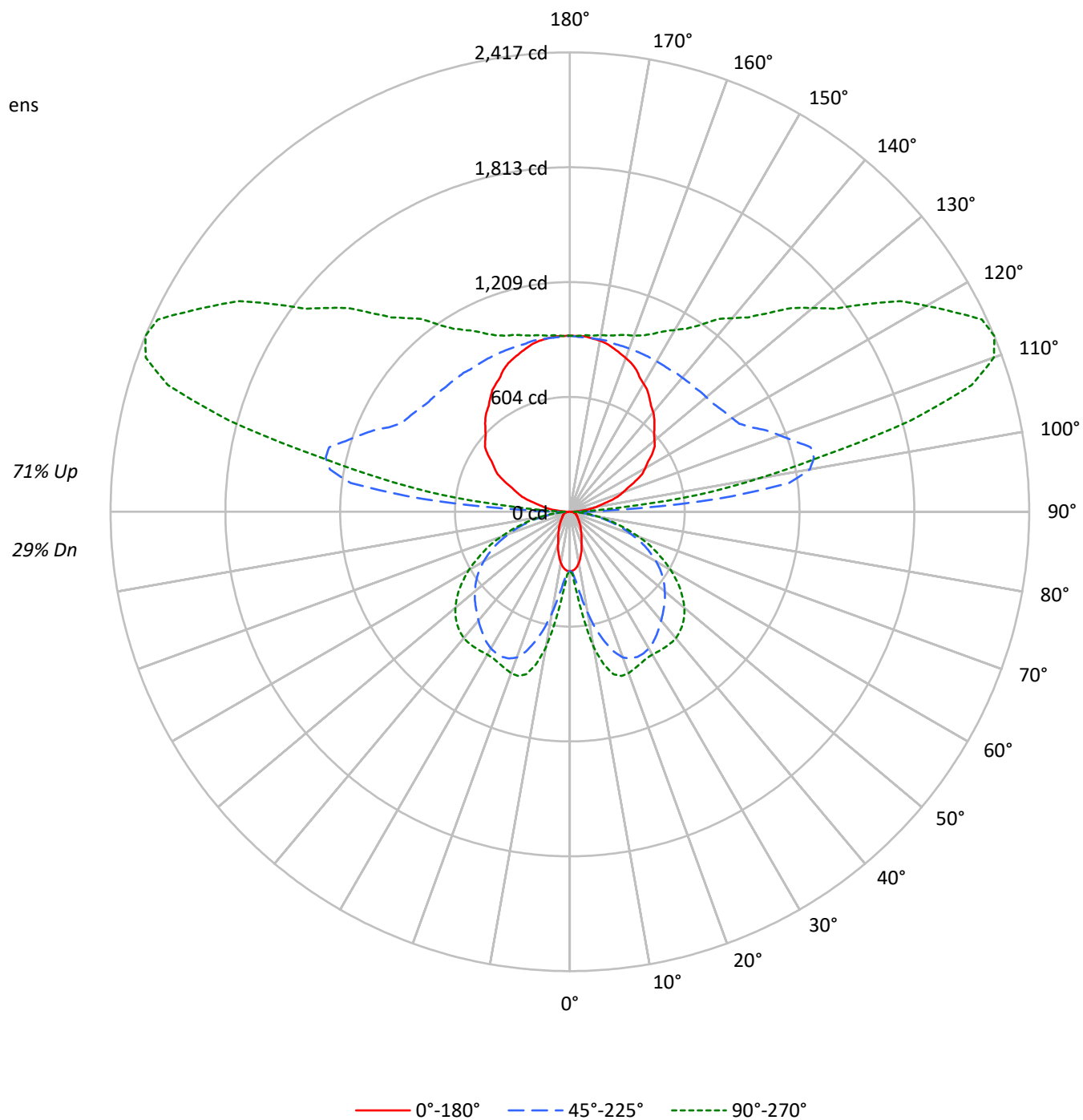
Lumens per Lamp: N/A
Luminaire Lumens: 8416.2 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): 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: P937487

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P937487

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1927	1927	1927
5°	1883	2227	2591
10°	1707	3246	4295
15°	1450	4239	5186
20°	1180	4912	5286
25°	984	5138	5179
30°	829	5170	5168
35°	733	5082	5302
40°	639	4970	5440
45°	577	4886	5461
50°	529	4811	5371
55°	507	4702	5133
60°	518	4494	4757
65°	537	4177	4240
70°	572	3640	3583
75°	632	2965	2796
80°	684	2053	1884
85°	602	1090	964

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5461 cd/sqm

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CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.3	0.5
10°-20°	178.6	2.1
20°-30°	312.4	3.7
30°-40°	402.2	4.8
40°-50°	449.2	5.3
50°-60°	430.3	5.1
60°-70°	341.0	4.1
70°-80°	200.5	2.4
80°-90°	59.2	0.7
90°-100°	451.3	5.4
100°-110°	1186.6	14.1
110°-120°	1230.4	14.6
120°-130°	986.9	11.7
130°-140°	774.4	9.2
140°-150°	594.4	7.1
150°-160°	428.0	5.1
160°-170°	261.9	3.1
170°-180°	88.5	1.1
0°-30°	531.4	6.3
0°-40°	933.6	11.1
0°-60°	1813.1	21.5
0°-90°	2413.8	28.7
90°-120°	2868.3	34.1
90°-150°	5223.9	62.1
90°-180°	6002.0	71.3
0°-180°	8416.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	312	312	312	312	312	
5°	304	326	367	415	430	28
15°	227	420	707	858	885	63
25°	145	476	842	880	881	67
35°	98	455	793	838	872	61
45°	67	363	701	804	840	52
55°	48	230	595	691	710	44
65°	38	122	442	497	504	38
75°	28	75	242	266	268	29
85°	10	23	60	66	67	11
90°	6	17	47	24	24	6
95°	60	234	777	401	273	66
105°	214	324	1312	1992	1858	227
115°	380	461	1051	2096	2392	375
125°	528	592	956	1615	1905	469
135°	630	693	926	1304	1478	487
145°	730	777	914	1112	1199	457
155°	825	848	914	1004	1033	379
165°	890	902	914	950	962	251
175°	926	926	920	932	932	88
180°	926	926	926	926	926	

TEST NUMBER: P937487

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5
2.5°	311.5	311.5	313.5	314.5	316.6	317.6	319.6	321.6	327.6	328.6	330.6
5°	303.6	307.6	320.6	325.6	339.6	358.7	366.6	379.7	406.8	414.7	419.8
7.5°	291.5	300.6	332.6	340.6	375.7	425.8	446.8	474.9	517.9	539.0	556.1
10°	272.5	291.5	348.6	367.7	424.8	500.9	540.0	579.1	644.2	673.2	684.3
12.5°	251.5	282.6	365.6	391.7	473.9	585.1	632.2	675.3	749.4	788.4	794.4
15°	227.4	269.5	381.7	419.8	526.0	655.2	707.3	760.4	829.6	857.6	864.6
17.5°	206.4	259.5	396.7	436.8	566.0	718.3	771.4	815.5	871.6	890.6	895.6
20°	180.4	243.4	406.8	458.9	608.2	764.4	815.5	849.6	887.6	899.7	901.7
22.5°	161.3	226.4	412.7	466.8	636.1	792.4	835.5	862.5	888.6	892.6	893.6
25°	145.3	207.4	411.7	475.9	660.2	809.4	842.5	862.5	877.6	879.6	879.6
27.5°	130.3	186.4	407.8	477.9	678.3	813.5	839.5	853.6	860.5	864.6	864.6
30°	117.2	166.3	397.7	473.9	686.2	809.4	830.6	837.5	844.5	850.6	853.6
32.5°	107.2	147.3	382.7	465.8	687.2	799.5	814.5	818.5	828.5	842.5	847.6
35°	98.2	128.3	365.6	454.9	681.3	783.5	793.4	797.5	817.5	838.5	845.5
37.5°	89.1	114.2	343.6	435.8	672.2	764.4	771.4	778.5	809.4	834.5	842.5
40°	80.2	102.2	317.6	414.7	658.3	741.3	747.4	758.4	799.5	828.5	836.5
42.5°	73.1	92.1	289.5	392.7	640.1	715.3	724.3	740.3	787.4	818.5	827.5
45°	67.1	82.2	259.5	362.6	617.1	688.2	701.3	723.3	773.4	803.5	811.4
47.5°	61.2	75.1	228.4	331.6	592.1	661.2	678.3	703.3	754.4	783.5	790.4
50°	56.1	68.1	197.4	298.5	565.0	632.2	652.2	678.3	730.4	757.4	766.4
52.5°	52.1	62.2	168.3	265.5	534.0	602.1	625.2	652.2	701.3	727.4	733.4
55°	48.1	57.1	143.2	230.4	501.9	570.0	595.1	621.1	669.2	691.2	695.3
57.5°	46.1	53.1	122.2	197.4	467.8	534.0	562.0	586.0	631.2	648.2	652.2
60°	43.1	50.1	106.2	169.3	430.8	499.9	524.0	548.0	586.0	600.1	603.1
62.5°	40.0	48.1	94.2	142.2	392.7	459.9	483.9	506.0	537.9	548.0	552.0
65°	38.0	46.1	85.2	122.2	353.7	417.7	441.8	460.8	486.8	496.9	498.9
67.5°	36.1	44.1	78.2	105.2	314.5	375.7	393.7	411.7	431.8	441.8	442.8
70°	33.1	42.0	72.1	93.1	274.5	327.6	342.6	361.6	377.7	382.7	385.8
72.5°	31.1	39.0	68.1	84.2	233.5	281.5	295.5	306.6	320.6	325.6	325.6
75°	28.1	35.1	64.1	75.1	191.3	230.4	242.4	253.5	264.4	266.5	263.4
77.5°	25.0	31.1	55.1	63.1	149.3	182.4	192.3	198.4	207.4	209.4	210.4
80°	21.0	27.1	43.1	49.1	108.2	134.3	141.2	146.3	154.3	154.3	156.3
82.5°	16.0	21.0	31.1	35.1	73.1	92.1	98.2	101.2	106.2	106.2	106.2
85°	10.1	13.0	20.0	23.0	44.1	56.1	60.2	61.2	65.1	66.1	66.1
87.5°	5.0	7.0	13.0	14.0	23.0	29.1	29.1	31.1	31.1	30.1	29.1
90°	6.2	11.2	16.1	17.4	27.4	40.6	47.2	41.9	31.5	23.6	23.6
92.5°	24.9	67.1	109.4	119.9	168.6	233.5	265.9	233.1	167.3	118.0	113.3
95°	59.7	137.0	214.3	233.7	414.9	656.6	777.4	693.7	526.3	400.8	386.5
97.5°	103.2	171.4	239.6	256.7	558.9	961.8	1163.3	1110.4	1004.7	925.3	898.2
100°	136.8	198.6	260.5	275.9	611.2	1058.3	1282.0	1285.8	1293.6	1299.4	1267.1
102.5°	165.3	223.1	280.8	295.2	635.3	1088.8	1315.5	1382.9	1517.7	1618.8	1591.2
105°	213.7	262.6	311.5	323.8	653.2	1092.3	1311.8	1462.9	1765.0	1991.6	1976.8
107.5°	263.4	309.1	354.7	366.0	656.5	1043.6	1237.2	1448.0	1869.4	2185.5	2189.1
110°	297.0	338.1	379.4	389.6	651.5	1000.6	1175.1	1410.6	1881.8	2235.2	2250.7

TEST NUMBER: P937487

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	330.0	369.2	408.5	418.2	651.7	962.9	1118.5	1359.6	1841.9	2203.6	2227.3
115°	379.7	415.8	452.0	461.0	657.7	919.7	1050.8	1283.0	1747.7	2096.1	2129.0
117.5°	428.8	461.6	494.5	502.7	669.8	892.7	1004.2	1213.8	1633.0	1947.5	1984.0
120°	457.4	488.3	519.2	527.0	679.9	883.7	985.5	1177.1	1560.1	1847.5	1882.9
122.5°	485.4	516.5	547.8	555.6	694.1	878.9	971.3	1143.8	1488.7	1747.4	1782.4
125°	528.2	556.7	585.2	592.2	713.4	875.0	955.8	1102.3	1395.3	1615.1	1647.4
127.5°	563.0	591.7	620.5	627.7	732.7	872.7	942.7	1068.5	1320.1	1508.8	1536.0
130°	581.7	612.6	643.5	651.3	746.8	874.1	937.7	1049.7	1273.7	1441.7	1466.8
132.5°	600.9	631.9	662.7	670.5	758.2	875.0	933.4	1033.6	1234.1	1384.5	1407.0
135°	629.5	657.7	685.8	692.9	770.6	874.1	925.9	1009.8	1177.8	1303.8	1323.2
137.5°	658.7	686.5	714.5	721.5	789.2	879.6	924.7	995.7	1137.6	1244.1	1259.9
140°	683.0	708.7	734.4	740.7	800.6	880.4	920.3	981.7	1104.3	1196.2	1211.0
142.5°	701.6	725.4	749.1	755.1	810.1	883.6	920.3	974.2	1081.9	1162.6	1175.4
145°	730.2	750.9	771.6	776.8	822.6	883.7	914.1	958.2	1046.3	1112.3	1122.0
147.5°	758.8	778.9	799.0	804.1	840.7	889.6	914.1	948.8	1018.1	1070.1	1078.1
150°	777.4	795.6	813.8	818.4	850.3	892.8	914.1	943.4	1001.9	1045.8	1052.3
152.5°	796.7	810.5	824.3	827.8	856.6	894.9	914.1	939.1	989.1	1026.6	1031.5
155°	825.3	835.4	845.6	848.2	870.2	899.5	914.1	934.0	973.8	1003.6	1006.9
157.5°	846.4	856.4	866.2	868.7	883.9	904.1	914.1	929.6	960.5	983.7	986.0
160°	860.6	868.4	876.2	878.1	890.1	906.2	914.1	927.4	953.9	973.8	975.1
162.5°	875.0	880.8	886.5	888.0	896.7	908.4	914.1	925.3	947.7	964.4	965.6
165°	890.5	895.7	901.0	902.3	906.3	911.5	914.1	922.1	938.1	950.2	951.5
167.5°	904.8	907.3	909.7	910.3	913.6	918.1	920.3	925.6	936.0	943.9	944.5
170°	914.1	916.6	919.1	919.7	919.9	920.2	920.3	925.6	936.0	943.9	943.9
172.5°	919.1	919.6	920.2	920.3	920.3	920.3	920.3	924.5	932.8	938.9	938.4
175°	925.9	925.9	925.9	925.9	924.0	921.5	920.3	922.9	928.2	932.2	932.2
177.5°	925.9	925.9	925.9	925.9	924.5	922.6	921.6	923.7	927.8	930.9	930.3
180°	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9

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CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	311.5	311.5
2.5°	332.6	330.6
5°	427.8	429.8
7.5°	576.1	575.1
10°	716.3	725.3
12.5°	818.5	820.5
15°	880.7	884.6
17.5°	904.7	905.7
20°	905.7	903.7
22.5°	894.6	892.6
25°	881.7	880.7
27.5°	869.6	870.6
30°	864.6	867.6
32.5°	864.6	869.6
35°	866.6	871.6
37.5°	865.6	871.6
40°	861.5	868.6
42.5°	850.6	855.6
45°	833.6	839.5
47.5°	811.4	815.5
50°	783.5	787.4
52.5°	748.4	749.4
55°	706.3	710.3
57.5°	661.2	662.2
60°	611.1	614.1
62.5°	558.1	558.1
65°	501.9	503.9
67.5°	443.8	448.8
70°	384.8	385.8
72.5°	326.6	326.6
75°	266.5	267.5
77.5°	209.4	209.4
80°	155.3	156.3
82.5°	107.2	109.2
85°	67.1	67.1
87.5°	31.1	28.1
90°	23.6	23.6
92.5°	94.5	75.8
95°	329.7	272.8
97.5°	789.9	681.7
100°	1138.1	1009.1
102.5°	1480.7	1370.2
105°	1917.4	1858.0
107.5°	2203.6	2217.9
110°	2312.6	2374.5

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2322.3	2417.3
115°	2260.7	2392.5
117.5°	2130.1	2276.3
120°	2025.0	2166.9
122.5°	1922.5	2062.5
125°	1776.3	1905.2
127.5°	1644.9	1753.7
130°	1567.4	1667.9
132.5°	1497.1	1587.1
135°	1400.8	1478.4
137.5°	1323.5	1387.0
140°	1270.5	1329.9
142.5°	1226.6	1277.7
145°	1160.7	1199.4
147.5°	1110.1	1142.2
150°	1078.3	1104.3
152.5°	1051.1	1070.7
155°	1019.8	1032.8
157.5°	995.1	1004.2
160°	980.4	985.5
162.5°	970.6	975.6
165°	956.8	961.9
167.5°	946.7	948.9
170°	943.9	943.9
172.5°	936.5	934.6
175°	932.2	932.2
177.5°	928.1	925.9
180°	925.9	925.9

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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	0.91	1.62	2.02	2.74	4.28	14.07	14.79	15.19	15.90	17.45
	3H	1.60	2.24	2.72	3.36	4.92	15.90	16.54	17.02	17.66	19.22
	4H	1.89	2.50	3.03	3.63	5.19	16.53	17.14	17.66	18.26	19.83
	6H	2.13	2.70	3.28	3.82	5.40	16.95	17.51	18.09	18.64	20.21
	8H	2.20	2.73	3.34	3.87	5.44	17.06	17.60	18.21	18.74	20.31
	12H	2.21	2.72	3.36	3.85	5.45	17.12	17.63	18.27	18.77	20.36
4H	2H	8.10	8.71	9.24	9.83	11.39	14.33	14.94	15.47	16.06	17.63
	3H	9.65	10.16	10.80	11.31	12.89	16.36	16.87	17.50	18.02	19.59
	4H	9.74	10.21	10.89	11.35	12.94	17.11	17.58	18.26	18.72	20.32
	6H	9.74	10.14	10.90	11.30	12.89	17.64	18.04	18.80	19.20	20.79
	8H	9.71	10.09	10.87	11.24	12.85	17.80	18.17	18.95	19.32	20.93
	12H	9.66	10.01	10.84	11.17	12.78	17.88	18.22	19.05	19.38	20.99
8H	4H	11.17	11.54	12.32	12.70	14.30	17.16	17.54	18.32	18.69	20.29
	6H	11.40	11.71	12.58	12.91	14.51	17.78	18.09	18.96	19.28	20.89
	8H	11.42	11.69	12.60	12.86	14.49	17.99	18.27	19.18	19.44	21.06
	12H	11.38	11.62	12.57	12.79	14.44	18.13	18.37	19.31	19.54	21.19
12H	4H	11.30	11.64	12.47	12.81	14.42	17.11	17.45	18.28	18.61	20.22
	6H	11.66	11.93	12.84	13.10	14.72	17.76	18.03	18.94	19.20	20.83
	8H	11.72	11.96	12.91	13.13	14.78	17.98	18.22	19.17	19.39	21.04