

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: P938474

Luminaire Tested: SQ4-FB-150U-100D-940-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

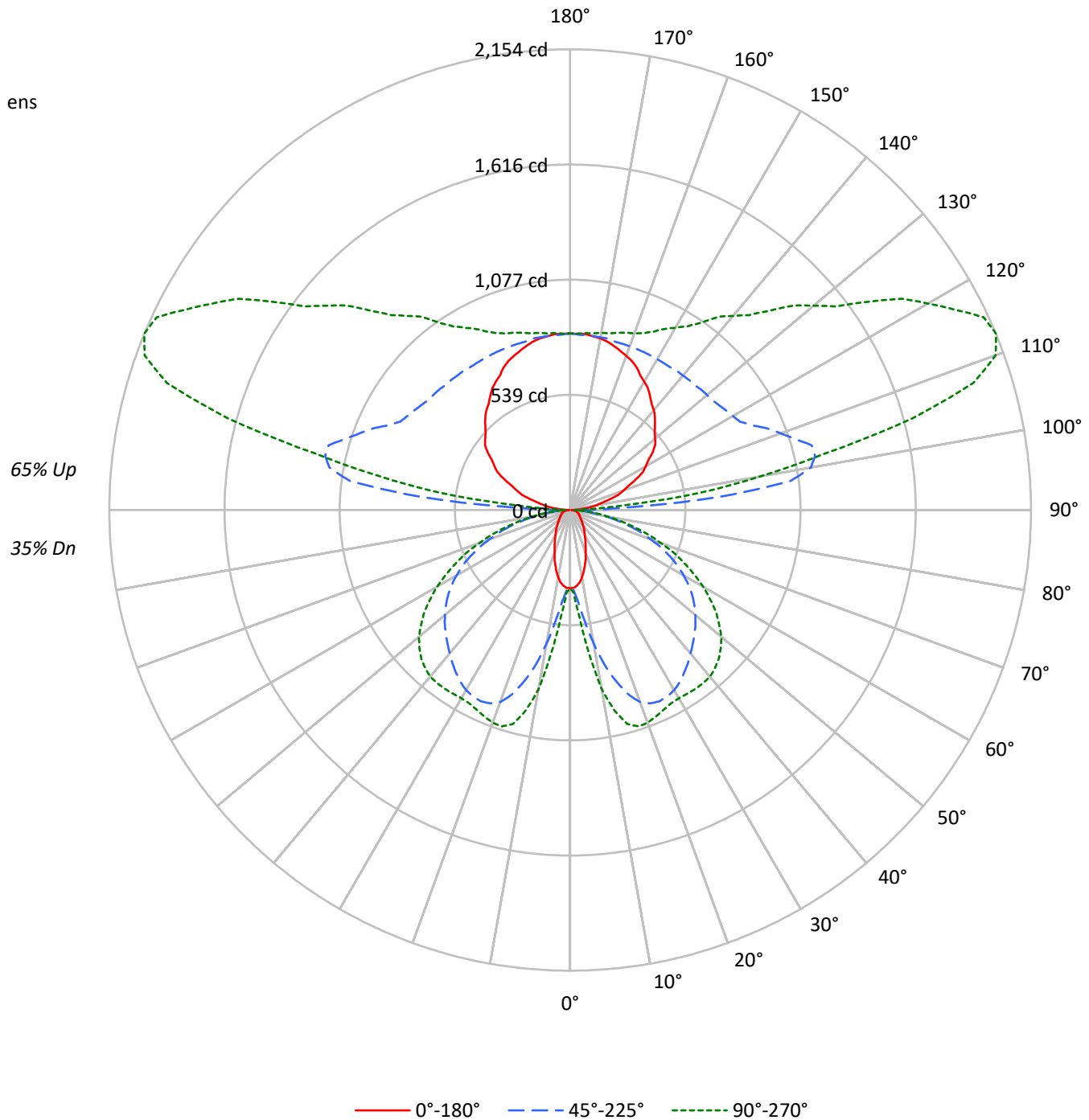
Test Method: LM-79-2019  
Report Number: P938474  
REPORT IS A COMBINATION OF REPORTS P933631 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-940-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8175.8 lumens  
Efficiency: N/A  
Efficacy: 112.9 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): 72.4  
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

TEST NUMBER: P938474  
CATALOG NUMBER: SQ4-FB-150U-100D-940-1D-UNV-STD-W-4

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35				35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28				28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23				23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8				8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7				7

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

	0°	45°	90°
0°	3386	3386	3386
5°	3305	3910	4552
10°	2993	5696	7546
15°	2541	7437	9111
20°	2067	8612	9285
25°	1722	9004	9097
30°	1450	9055	9080
35°	1280	8898	9314
40°	1114	8695	9557
45°	1006	8544	9595
50°	921	8407	9436
55°	879	8210	9018
60°	897	7839	8358
65°	929	7278	7450
70°	982	6336	6293
75°	1079	5153	4912
80°	1151	3559	3309
85°	969	1879	1694

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9595 cd/sqm



TEST NUMBER: P938474

CATALOG NUMBER: SQ4-FB-150U-100D-940-1D-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.2	0.6
10°-20°	209.2	2.6
20°-30°	365.9	4.5
30°-40°	471.1	5.8
40°-50°	526.2	6.4
50°-60°	503.9	6.2
60°-70°	399.4	4.9
70°-80°	234.8	2.9
80°-90°	68.4	0.8
90°-100°	402.3	4.9
100°-110°	1057.6	12.9
110°-120°	1096.6	13.4
120°-130°	879.6	10.8
130°-140°	690.2	8.4
140°-150°	529.7	6.5
150°-160°	381.5	4.7
160°-170°	233.4	2.9
170°-180°	78.9	1.0
0°-30°	622.3	7.6
0°-40°	1093.4	13.4
0°-60°	2123.5	26.0
0°-90°	2826.1	34.6
90°-120°	2556.5	31.3
90°-150°	4656.0	56.9
90°-180°	5350.0	65.4
0°-180°	8175.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	365	365	365	365	365	
5°	356	381	429	486	503	33
15°	266	492	828	1004	1036	74
25°	170	557	987	1030	1031	78
35°	115	533	929	982	1021	72
45°	79	425	821	941	983	61
55°	56	270	697	810	832	51
65°	45	143	517	582	590	44
75°	33	88	284	312	313	34
85°	12	27	70	77	79	12
90°	6	16	42	21	21	5
95°	53	208	693	357	243	59
105°	191	289	1169	1775	1656	202
115°	338	411	937	1868	2132	334
125°	471	528	852	1439	1698	418
135°	561	618	825	1162	1318	434
145°	651	692	815	991	1069	408
155°	736	756	815	894	920	338
165°	794	804	815	847	857	224
175°	825	825	820	831	831	78
180°	825	825	825	825	825	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9
2.5°	364.9	364.9	367.3	368.4	370.7	372.0	374.3	376.6	383.7	384.9	387.2
5°	355.6	360.3	375.4	381.3	397.7	420.0	429.4	444.7	476.4	485.7	491.6
7.5°	341.4	352.0	389.6	399.0	440.0	498.7	523.3	556.2	606.6	631.3	651.2
10°	319.1	341.4	408.3	430.6	497.5	586.7	632.4	678.2	754.4	788.5	801.4
12.5°	294.5	330.9	428.3	458.7	555.0	685.3	740.4	790.9	877.7	923.4	930.4
15°	266.3	315.6	447.0	491.6	616.0	767.4	828.4	890.6	971.6	1004.4	1012.6
17.5°	241.7	303.9	464.6	511.6	663.0	841.3	903.5	955.1	1020.8	1043.1	1049.0
20°	211.2	285.1	476.4	537.4	712.3	895.3	955.1	995.0	1039.6	1053.7	1056.0
22.5°	188.9	265.2	483.4	546.7	745.0	928.1	978.6	1010.3	1040.7	1045.4	1046.6
25°	170.1	242.9	482.3	557.3	773.3	948.0	986.7	1010.3	1027.9	1030.2	1030.2
27.5°	152.6	218.3	477.6	559.7	794.3	952.7	983.3	999.7	1007.9	1012.6	1012.6
30°	137.3	194.7	465.8	555.0	803.7	948.0	972.7	980.9	989.1	996.2	999.7
32.5°	125.6	172.4	448.3	545.6	804.9	936.3	953.9	958.6	970.3	986.7	992.7
35°	115.0	150.2	428.3	532.7	797.9	917.6	929.3	934.0	957.4	982.1	990.3
37.5°	104.4	133.7	402.4	510.4	787.3	895.3	903.5	911.7	948.0	977.4	986.7
40°	93.9	119.7	372.0	485.7	770.9	868.3	875.3	888.3	936.3	970.3	979.7
42.5°	85.7	108.0	339.1	460.0	749.7	837.7	848.3	867.1	922.3	958.6	969.2
45°	78.6	96.2	303.9	424.7	722.7	806.1	821.3	847.2	905.8	941.0	950.4
47.5°	71.6	88.0	267.6	388.4	693.4	774.4	794.3	823.7	883.6	917.6	925.7
50°	65.7	79.8	231.1	349.7	661.7	740.4	763.9	794.3	855.4	887.0	897.6
52.5°	61.0	72.7	197.1	311.0	625.4	705.2	732.2	763.9	821.3	851.9	858.9
55°	56.3	66.9	167.8	269.9	587.9	667.6	697.0	727.4	783.8	809.6	814.3
57.5°	54.0	62.2	143.1	231.1	548.0	625.4	658.3	686.4	739.2	759.2	763.9
60°	50.4	58.7	124.4	198.3	504.6	585.5	613.7	641.8	686.4	702.9	706.3
62.5°	47.0	56.3	110.3	166.6	460.0	538.6	566.7	592.6	630.1	641.8	646.6
65°	44.6	54.0	99.7	143.1	414.2	489.3	517.4	539.7	570.3	582.0	584.3
67.5°	42.3	51.6	91.6	123.2	368.4	440.0	461.1	482.3	505.7	517.4	518.6
70°	38.7	49.3	84.4	109.1	321.5	383.7	401.3	423.6	442.3	448.3	451.7
72.5°	36.4	45.7	79.8	98.6	273.4	329.7	346.1	359.0	375.4	381.3	381.3
75°	32.9	41.0	75.1	88.0	224.1	269.9	284.0	296.9	309.7	312.1	308.6
77.5°	29.3	36.4	64.6	73.9	174.8	213.6	225.3	232.3	242.9	245.3	246.4
80°	24.6	31.7	50.4	57.5	126.7	157.3	165.4	171.3	180.7	180.7	183.0
82.5°	18.7	24.6	36.4	41.0	85.7	108.0	115.0	118.5	124.4	124.4	124.4
85°	11.7	15.3	23.4	27.0	51.6	65.7	70.4	71.6	76.3	77.4	77.4
87.5°	5.9	8.2	15.3	16.4	27.0	34.0	34.0	36.4	36.4	35.2	34.0
90°	5.5	9.9	14.4	15.5	24.4	36.2	42.1	37.4	28.1	21.0	21.0
92.5°	22.1	59.8	97.5	106.9	150.2	208.1	237.0	207.7	149.2	105.2	101.1
95°	53.2	122.1	191.0	208.2	369.8	585.2	692.9	618.3	469.1	357.2	344.5
97.5°	91.9	152.7	213.6	228.7	498.1	857.3	1036.8	989.7	895.4	824.7	800.5
100°	121.8	177.0	232.1	245.9	544.8	943.3	1142.6	1146.1	1153.0	1158.1	1129.4
102.5°	147.3	198.8	250.2	263.1	566.3	970.4	1172.5	1232.5	1352.7	1442.8	1418.2
105°	190.6	234.2	277.7	288.6	582.1	973.4	1169.1	1303.8	1573.1	1775.1	1761.9
107.5°	234.9	275.5	316.1	326.3	585.1	930.2	1102.7	1290.5	1666.2	1947.9	1951.1
110°	264.7	301.4	338.2	347.3	580.7	891.7	1047.3	1257.3	1677.3	1992.2	2006.0



TEST NUMBER: P938474

CATALOG NUMBER: SQ4-FB-150U-100D-940-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	294.1	329.1	364.1	372.8	580.8	858.3	997.0	1211.9	1641.6	1964.0	1985.1
115°	338.4	370.7	402.9	411.0	586.2	819.8	936.6	1143.6	1557.6	1868.2	1897.6
117.5°	382.2	411.5	440.8	448.1	597.1	795.7	895.0	1081.9	1455.5	1735.8	1768.4
120°	407.6	435.2	462.7	469.7	605.9	787.6	878.4	1049.1	1390.5	1646.6	1678.2
122.5°	432.5	460.3	488.2	495.1	618.7	783.4	865.7	1019.4	1326.8	1557.5	1588.6
125°	470.8	496.1	521.5	527.8	635.8	779.8	851.9	982.4	1243.6	1439.4	1468.2
127.5°	501.8	527.4	553.0	559.4	652.9	777.8	840.2	952.4	1176.6	1344.8	1369.0
130°	518.4	545.9	573.5	580.4	665.6	779.0	835.8	935.6	1135.2	1284.9	1307.3
132.5°	535.6	563.2	590.7	597.6	675.7	779.8	831.9	921.2	1100.0	1234.0	1254.0
135°	561.0	586.2	611.2	617.5	686.8	779.0	825.2	900.1	1049.7	1161.9	1179.3
137.5°	587.1	611.9	636.8	643.0	703.4	783.9	824.2	887.4	1013.9	1108.8	1123.0
140°	608.7	631.6	654.5	660.2	713.6	784.7	820.2	874.9	984.2	1066.1	1079.4
142.5°	625.3	646.5	667.6	672.9	722.0	787.5	820.2	868.3	964.3	1036.3	1047.7
145°	650.8	669.3	687.7	692.3	733.1	787.6	814.7	854.0	932.5	991.4	1000.0
147.5°	676.2	694.2	712.2	716.7	749.4	793.0	814.7	845.6	907.4	953.7	960.8
150°	692.9	709.2	725.3	729.4	757.8	795.7	814.7	840.8	893.0	932.1	937.9
152.5°	710.0	722.4	734.6	737.8	763.4	797.6	814.7	837.0	881.6	915.0	919.3
155°	735.5	744.7	753.7	756.0	775.6	801.7	814.7	832.5	867.9	894.5	897.4
157.5°	754.4	763.2	772.0	774.2	787.7	805.8	814.7	828.5	856.0	876.7	878.8
160°	767.1	774.0	780.9	782.6	793.3	807.6	814.7	826.6	850.2	867.8	869.0
162.5°	779.8	785.0	790.1	791.5	799.2	809.6	814.7	824.7	844.7	859.6	860.6
165°	793.7	798.3	803.0	804.2	807.7	812.4	814.7	821.8	836.1	846.8	848.0
167.5°	806.4	808.6	810.8	811.4	814.3	818.3	820.2	825.0	834.3	841.3	841.8
170°	814.7	817.0	819.2	819.7	819.9	820.2	820.2	825.0	834.3	841.3	841.3
172.5°	819.2	819.6	820.2	820.2	820.2	820.2	820.2	824.0	831.3	836.9	836.4
175°	825.2	825.2	825.2	825.2	823.5	821.3	820.2	822.6	827.3	830.8	830.8
177.5°	825.2	825.2	825.2	825.2	824.0	822.3	821.4	823.3	826.9	829.7	829.1
180°	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2



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CATALOG NUMBER: SQ4-FB-150U-100D-940-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	364.9	364.9
2.5°	389.6	387.2
5°	501.0	503.4
7.5°	674.7	673.5
10°	839.0	849.5
12.5°	958.6	961.0
15°	1031.4	1036.0
17.5°	1059.6	1060.7
20°	1060.7	1058.3
22.5°	1047.8	1045.4
25°	1032.6	1031.4
27.5°	1018.4	1019.6
30°	1012.6	1016.1
32.5°	1012.6	1018.4
35°	1015.0	1020.8
37.5°	1013.7	1020.8
40°	1009.1	1017.3
42.5°	996.2	1002.0
45°	976.3	983.3
47.5°	950.4	955.1
50°	917.6	922.3
52.5°	876.5	877.7
55°	827.2	831.9
57.5°	774.4	775.6
60°	715.7	719.3
62.5°	653.6	653.6
65°	587.9	590.2
67.5°	519.8	525.7
70°	450.6	451.7
72.5°	382.6	382.6
75°	312.1	313.3
77.5°	245.3	245.3
80°	181.9	183.0
82.5°	125.6	127.9
85°	78.6	78.6
87.5°	36.4	32.9
90°	21.0	21.0
92.5°	84.3	67.6
95°	293.8	243.1
97.5°	704.1	607.6
100°	1014.5	899.5
102.5°	1319.7	1221.3
105°	1709.0	1656.0
107.5°	1963.9	1976.7
110°	2061.1	2116.3





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CATALOG NUMBER: SQ4-FB-150U-100D-940-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2069.8	2154.5
115°	2015.0	2132.4
117.5°	1898.5	2028.7
120°	1804.8	1931.3
122.5°	1713.5	1838.2
125°	1583.1	1698.1
127.5°	1466.0	1563.0
130°	1396.9	1486.5
132.5°	1334.2	1414.5
135°	1248.4	1317.6
137.5°	1179.6	1236.2
140°	1132.3	1185.2
142.5°	1093.2	1138.7
145°	1034.5	1069.0
147.5°	989.4	1018.0
150°	961.1	984.2
152.5°	936.8	954.2
155°	909.0	920.5
157.5°	886.8	895.0
160°	873.7	878.4
162.5°	865.1	869.5
165°	852.7	857.4
167.5°	843.8	845.7
170°	841.3	841.3
172.5°	834.7	833.0
175°	830.8	830.8
177.5°	827.2	825.2
180°	825.2	825.2



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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	3.62	4.38	4.69	5.46	6.93	16.76	17.52	17.83	18.60	20.07
	3H	4.32	5.00	5.40	6.09	7.58	18.58	19.26	19.66	20.35	21.84
	4H	4.61	5.26	5.70	6.35	7.85	19.21	19.86	20.30	20.94	22.44
	6H	4.86	5.46	5.96	6.55	8.06	19.62	20.22	20.72	21.31	22.82
	8H	4.92	5.49	6.03	6.60	8.10	19.73	20.30	20.84	21.41	22.91
	12H	4.94	5.48	6.05	6.58	8.11	19.79	20.33	20.90	21.43	22.96
4H	2H	10.80	11.45	11.90	12.54	14.03	17.02	17.67	18.12	18.76	20.26
	3H	12.36	12.90	13.47	14.02	15.53	19.04	19.59	20.15	20.70	22.21
	4H	12.45	12.95	13.56	14.05	15.58	19.80	20.30	20.91	21.40	22.93
	6H	12.46	12.88	13.57	14.01	15.53	20.32	20.75	21.44	21.87	23.40
	8H	12.43	12.83	13.55	13.95	15.49	20.47	20.87	21.59	21.99	23.53
	12H	12.38	12.74	13.52	13.88	15.42	20.55	20.91	21.69	22.05	23.59
8H	4H	13.88	14.28	15.00	15.40	16.94	19.85	20.25	20.97	21.37	22.91
	6H	14.11	14.45	15.25	15.61	17.14	20.46	20.79	21.60	21.95	23.49
	8H	14.13	14.42	15.28	15.56	17.12	20.67	20.96	21.82	22.10	23.66
	12H	14.09	14.35	15.25	15.49	17.08	20.80	21.06	21.95	22.20	23.79
12H	4H	14.01	14.37	15.15	15.51	17.05	19.80	20.16	20.93	21.29	22.84
	6H	14.37	14.66	15.51	15.80	17.36	20.44	20.73	21.59	21.88	23.43
	8H	14.43	14.69	15.58	15.83	17.42	20.66	20.92	21.81	22.05	23.65