

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: P938498

Luminaire Tested: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938498
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-B35-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

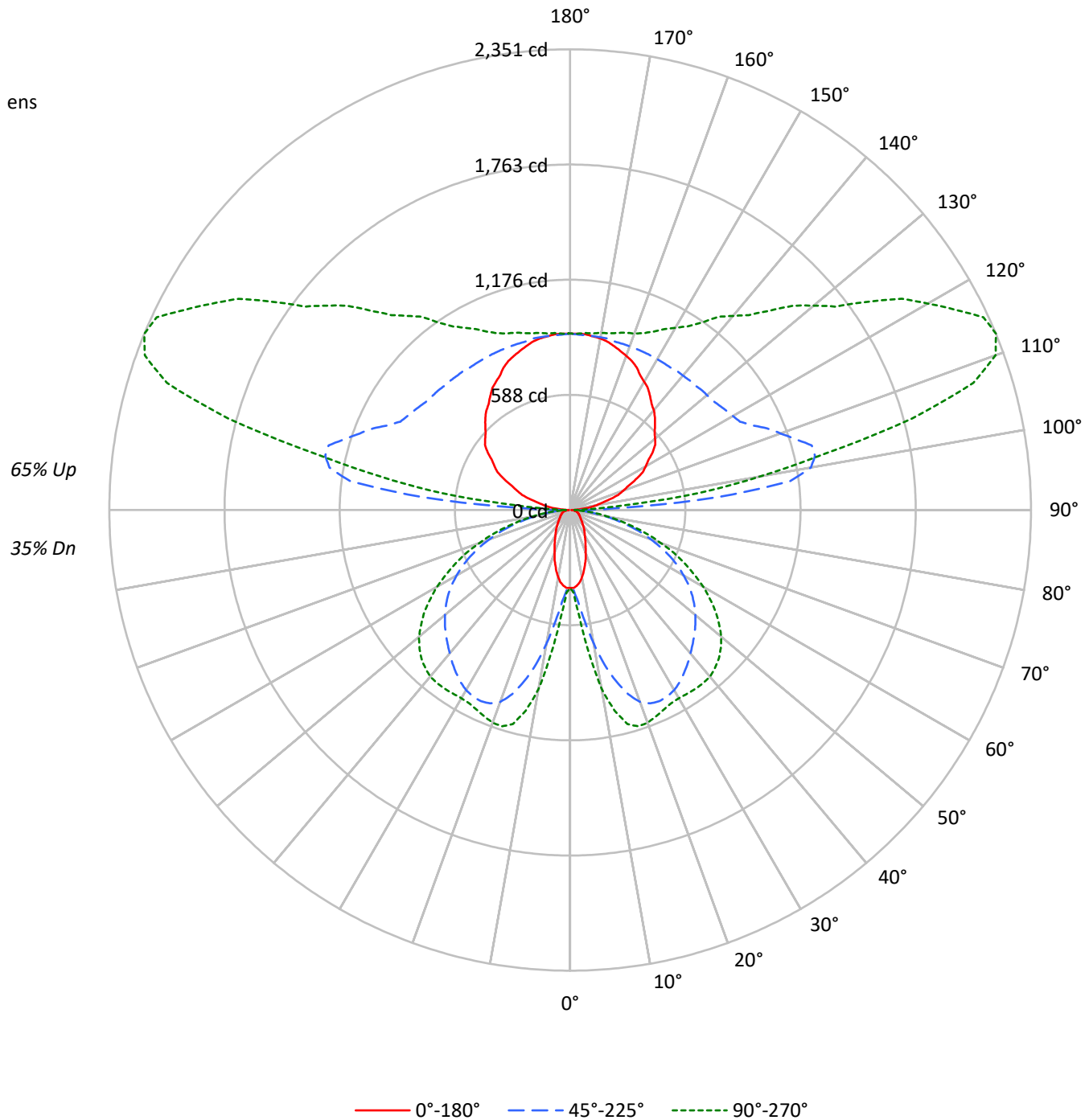
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8921.6 lumens
Efficiency: N/A
Efficacy: 123.2 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_{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: P938498
CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P938498

CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

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°	3695	3695	3695
5°	3606	4267	4967
10°	3267	6216	8233
15°	2773	8116	9942
20°	2255	9398	10133
25°	1879	9827	9927
30°	1582	9881	9908
35°	1397	9710	10165
40°	1215	9487	10429
45°	1098	9323	10470
50°	1005	9173	10297
55°	959	8959	9840
60°	978	8554	9120
65°	1013	7942	8129
70°	1071	6913	6867
75°	1177	5623	5360
80°	1254	3884	3611
85°	1060	2050	1849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10470 cd/sqm



TEST NUMBER: P938498

CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.5	0.6
10°-20°	228.3	2.6
20°-30°	399.3	4.5
30°-40°	514.0	5.8
40°-50°	574.2	6.4
50°-60°	549.9	6.2
60°-70°	435.8	4.9
70°-80°	256.3	2.9
80°-90°	74.6	0.8
90°-100°	439.0	4.9
100°-110°	1154.1	12.9
110°-120°	1196.6	13.4
120°-130°	959.8	10.8
130°-140°	753.1	8.4
140°-150°	578.1	6.5
150°-160°	416.3	4.7
160°-170°	254.7	2.9
170°-180°	86.1	1.0
0°-30°	679.1	7.6
0°-40°	1193.1	13.4
0°-60°	2317.2	26.0
0°-90°	3083.9	34.6
90°-120°	2789.6	31.3
90°-150°	5080.6	56.9
90°-180°	5838.0	65.4
0°-180°	8921.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	388	416	469	530	549	36
15°	291	536	904	1096	1130	81
25°	186	608	1077	1124	1126	86
35°	126	581	1014	1072	1114	78
45°	86	464	896	1027	1073	66
55°	61	294	761	883	908	56
65°	49	156	565	635	644	48
75°	36	96	310	341	342	38
85°	13	30	77	84	86	14
90°	6	17	46	23	23	6
95°	58	227	756	390	265	64
105°	208	315	1276	1937	1807	220
115°	369	448	1022	2039	2327	365
125°	514	576	930	1571	1853	456
135°	612	674	900	1268	1438	474
145°	710	755	889	1082	1166	445
155°	803	825	889	976	1004	369
165°	866	878	889	924	936	244
175°	900	900	895	907	907	85
180°	900	900	900	900	900	



TEST NUMBER: P938498

CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	398.2	398.2	398.2	398.2	398.2	398.2	398.2	398.2	398.2	398.2	398.2
2.5°	398.2	398.2	400.8	402.0	404.6	405.9	408.4	411.0	418.7	420.0	422.5
5°	388.0	393.1	409.7	416.1	434.0	458.3	468.6	485.3	519.9	530.0	536.4
7.5°	372.6	384.1	425.1	435.4	480.1	544.2	571.0	606.9	661.9	688.9	710.6
10°	348.3	372.6	445.5	469.9	542.8	640.2	690.1	740.0	823.3	860.4	874.5
12.5°	321.4	361.0	467.3	500.6	605.6	747.8	808.0	863.0	957.8	1007.7	1015.3
15°	290.6	344.4	487.8	536.4	672.2	837.4	904.0	971.8	1060.2	1096.0	1105.0
17.5°	263.8	331.6	507.0	558.2	723.5	918.0	985.9	1042.3	1114.0	1138.3	1144.7
20°	230.4	311.1	519.9	586.4	777.2	976.9	1042.3	1085.8	1134.4	1149.8	1152.3
22.5°	206.1	289.3	527.5	596.6	813.0	1012.8	1067.8	1102.4	1135.7	1140.8	1142.1
25°	185.7	265.0	526.3	608.1	843.8	1034.5	1076.8	1102.4	1121.6	1124.1	1124.1
27.5°	166.5	238.2	521.1	610.8	866.8	1039.6	1073.0	1090.9	1099.8	1105.0	1105.0
30°	149.8	212.5	508.3	605.6	877.0	1034.5	1061.4	1070.4	1079.4	1087.0	1090.9
32.5°	137.0	188.2	489.2	595.4	878.3	1021.7	1040.9	1046.0	1058.8	1076.8	1083.2
35°	125.5	163.9	467.3	581.3	870.6	1001.3	1014.1	1019.2	1044.8	1071.7	1080.6
37.5°	114.0	145.9	439.2	557.0	859.1	976.9	985.9	994.9	1034.5	1066.6	1076.8
40°	102.4	130.6	405.9	530.0	841.2	947.5	955.1	969.3	1021.7	1058.8	1069.1
42.5°	93.5	117.8	370.1	501.9	818.1	914.2	925.7	946.2	1006.4	1046.0	1057.6
45°	85.8	104.9	331.6	463.5	788.7	879.7	896.2	924.4	988.5	1026.8	1037.1
47.5°	78.1	96.0	292.0	423.8	756.7	845.1	866.8	898.8	964.2	1001.3	1010.2
50°	71.7	87.1	252.2	381.6	722.1	808.0	833.5	866.8	933.4	967.9	979.5
52.5°	66.6	79.4	215.1	339.3	682.5	769.5	798.9	833.5	896.2	929.6	937.2
55°	61.4	73.0	183.1	294.5	641.5	728.5	760.6	793.8	855.3	883.4	888.6
57.5°	58.9	67.8	156.2	252.2	598.0	682.5	718.3	749.0	806.6	828.4	833.5
60°	55.0	64.1	135.8	216.4	550.6	638.9	669.7	700.4	749.0	767.0	770.7
62.5°	51.3	61.4	120.3	181.8	501.9	587.7	618.4	646.6	687.6	700.4	705.5
65°	48.6	58.9	108.8	156.2	451.9	533.9	564.6	589.0	622.3	635.1	637.6
67.5°	46.1	56.3	99.9	134.4	402.0	480.1	503.2	526.3	551.8	564.6	565.9
70°	42.2	53.8	92.2	119.1	350.8	418.7	437.9	462.2	482.7	489.2	492.9
72.5°	39.7	49.9	87.1	107.6	298.4	359.8	377.7	391.8	409.7	416.1	416.1
75°	35.9	44.8	82.0	96.0	244.6	294.5	309.9	323.9	338.0	340.6	336.7
77.5°	32.0	39.7	70.4	80.6	190.8	233.0	245.8	253.5	265.0	267.6	268.9
80°	26.8	34.6	55.0	62.7	138.3	171.6	180.5	186.9	197.2	197.2	199.7
82.5°	20.4	26.8	39.7	44.8	93.5	117.8	125.5	129.4	135.8	135.8	135.8
85°	12.8	16.7	25.6	29.5	56.3	71.7	76.8	78.1	83.2	84.5	84.5
87.5°	6.4	8.9	16.7	17.9	29.5	37.1	37.1	39.7	39.7	38.4	37.1
90°	6.0	10.9	15.7	17.0	26.6	39.5	45.9	40.8	30.6	23.0	23.0
92.5°	24.1	65.2	106.4	116.7	164.0	227.0	258.6	226.6	162.8	114.8	110.3
95°	58.0	133.2	208.4	227.2	403.5	638.6	756.1	674.7	511.9	389.8	376.0
97.5°	100.3	166.7	233.0	249.6	543.5	935.5	1131.4	1080.0	977.0	899.9	873.6
100°	132.9	193.1	253.3	268.3	594.5	1029.4	1246.8	1250.6	1258.1	1263.8	1232.4
102.5°	160.8	217.0	273.1	287.1	617.9	1058.9	1279.5	1345.0	1476.1	1574.4	1547.6
105°	207.9	255.5	303.0	314.9	635.2	1062.2	1275.8	1422.7	1716.6	1937.0	1922.6
107.5°	256.3	300.6	345.0	356.0	638.5	1015.0	1203.3	1408.2	1818.1	2125.6	2129.1
110°	288.9	328.9	369.0	379.0	633.6	973.1	1142.8	1372.0	1830.2	2174.0	2189.0



TEST NUMBER: P938498

CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	320.9	359.1	397.3	406.8	633.8	936.5	1087.9	1322.4	1791.4	2143.1	2166.2
115°	369.3	404.5	439.6	448.5	639.6	894.6	1022.0	1247.9	1699.7	2038.6	2070.7
117.5°	417.1	449.0	481.0	489.0	651.6	868.3	976.7	1180.5	1588.3	1894.1	1929.7
120°	444.8	474.9	504.9	512.5	661.1	859.4	958.5	1144.8	1517.4	1796.8	1831.3
122.5°	472.0	502.3	532.8	540.3	675.1	854.9	944.7	1112.4	1447.9	1699.5	1733.5
125°	513.8	541.4	569.1	576.0	693.8	851.0	929.6	1072.0	1357.0	1570.7	1602.1
127.5°	547.6	575.5	603.4	610.4	712.5	848.7	916.9	1039.3	1283.9	1467.5	1493.9
130°	565.7	595.7	625.8	633.3	726.3	850.1	912.0	1020.9	1238.8	1402.1	1426.6
132.5°	584.4	614.5	644.6	652.1	737.3	851.0	907.8	1005.2	1200.3	1346.5	1368.4
135°	612.2	639.6	667.0	673.8	749.4	850.1	900.5	982.2	1145.5	1267.9	1286.8
137.5°	640.6	667.7	694.9	701.7	767.5	855.4	899.3	968.3	1106.4	1210.0	1225.4
140°	664.2	689.2	714.2	720.5	778.7	856.3	895.1	954.7	1073.9	1163.4	1177.8
142.5°	682.4	705.4	728.5	734.3	787.9	859.3	895.1	947.5	1052.2	1130.8	1143.2
145°	710.2	730.3	750.4	755.4	800.0	859.4	889.1	931.9	1017.5	1081.8	1091.2
147.5°	737.9	757.6	777.1	782.1	817.7	865.3	889.1	922.8	990.1	1040.7	1048.5
150°	756.1	773.8	791.5	795.9	826.9	868.3	889.1	917.5	974.4	1017.2	1023.5
152.5°	774.8	788.3	801.7	805.0	833.0	870.4	889.1	913.4	962.0	998.5	1003.2
155°	802.6	812.6	822.5	825.0	846.3	874.8	889.1	908.4	947.1	976.1	979.3
157.5°	823.2	832.9	842.4	844.9	859.6	879.3	889.1	904.1	934.1	956.7	958.9
160°	837.0	844.6	852.1	854.0	865.7	881.3	889.1	901.9	927.7	947.0	948.3
162.5°	851.0	856.6	862.2	863.7	872.1	883.4	889.1	899.9	921.7	938.0	939.2
165°	866.1	871.1	876.3	877.5	881.4	886.5	889.1	896.8	912.4	924.0	925.3
167.5°	879.9	882.4	884.8	885.4	888.6	892.9	895.1	900.2	910.4	918.0	918.6
170°	889.1	891.5	893.9	894.5	894.7	895.0	895.1	900.2	910.4	918.0	918.0
172.5°	893.9	894.4	895.0	895.1	895.1	895.1	895.1	899.1	907.2	913.2	912.7
175°	900.5	900.5	900.5	900.5	898.7	896.2	895.1	897.6	902.7	906.6	906.6
177.5°	900.5	900.5	900.5	900.5	899.1	897.3	896.3	898.4	902.3	905.3	904.8
180°	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5



TEST NUMBER: P938498

CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	398.2	398.2
2.5°	425.1	422.5
5°	546.7	549.3
7.5°	736.2	734.9
10°	915.5	926.9
12.5°	1046.0	1048.7
15°	1125.5	1130.5
17.5°	1156.2	1157.5
20°	1157.5	1154.9
22.5°	1143.4	1140.8
25°	1126.8	1125.5
27.5°	1111.3	1112.6
30°	1105.0	1108.8
32.5°	1105.0	1111.3
35°	1107.6	1114.0
37.5°	1106.2	1114.0
40°	1101.2	1110.1
42.5°	1087.0	1093.4
45°	1065.3	1073.0
47.5°	1037.1	1042.3
50°	1001.3	1006.4
52.5°	956.4	957.8
55°	902.6	907.8
57.5°	845.1	846.3
60°	781.0	784.9
62.5°	713.2	713.2
65°	641.5	644.0
67.5°	567.3	573.6
70°	491.7	492.9
72.5°	417.4	417.4
75°	340.6	341.9
77.5°	267.6	267.6
80°	198.5	199.7
82.5°	137.0	139.5
85°	85.8	85.8
87.5°	39.7	35.9
90°	23.0	23.0
92.5°	92.0	73.7
95°	320.6	265.3
97.5°	768.3	663.0
100°	1107.0	981.5
102.5°	1440.1	1332.7
105°	1864.8	1807.1
107.5°	2143.0	2157.0
110°	2249.1	2309.3



TEST NUMBER: P938498

CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2258.6	2351.0
115°	2198.8	2326.9
117.5°	2071.7	2213.8
120°	1969.4	2107.5
122.5°	1869.8	2005.9
125°	1727.5	1853.0
127.5°	1599.7	1705.5
130°	1524.3	1622.1
132.5°	1455.9	1543.5
135°	1362.3	1437.8
137.5°	1287.2	1348.9
140°	1235.6	1293.3
142.5°	1192.9	1242.5
145°	1128.9	1166.5
147.5°	1079.7	1110.9
150°	1048.7	1073.9
152.5°	1022.3	1041.3
155°	991.9	1004.5
157.5°	967.7	976.7
160°	953.4	958.5
162.5°	944.0	948.8
165°	930.4	935.6
167.5°	920.7	922.9
170°	918.0	918.0
172.5°	910.9	909.0
175°	906.6	906.6
177.5°	902.6	900.5
180°	900.5	900.5



TEST NUMBER: P938498
 CATALOG NUMBER: SQ4-FB-150U-100D-B35-1D-UNV-STD-W-4

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	3.92	4.69	5.00	5.76	7.24	17.06	17.82	18.14	18.90	20.38
	3H	4.62	5.31	5.70	6.39	7.88	18.88	19.56	19.96	20.65	22.14
	4H	4.92	5.57	6.01	6.65	8.15	19.51	20.16	20.60	21.25	22.74
	6H	5.16	5.76	6.26	6.85	8.36	19.92	20.52	21.03	21.61	23.12
	8H	5.23	5.80	6.33	6.90	8.41	20.03	20.60	21.14	21.71	23.21
	12H	5.24	5.78	6.35	6.88	8.41	20.09	20.63	21.20	21.73	23.26
4H	2H	11.10	11.75	12.20	12.84	14.34	17.33	17.98	18.43	19.06	20.56
	3H	12.66	13.21	13.77	14.32	15.83	19.35	19.89	20.45	21.01	22.52
	4H	12.75	13.25	13.87	14.36	15.89	20.10	20.60	21.21	21.70	23.23
	6H	12.76	13.19	13.88	14.32	15.84	20.62	21.05	21.74	22.18	23.70
	8H	12.73	13.13	13.85	14.25	15.79	20.77	21.17	21.89	22.29	23.83
	12H	12.68	13.05	13.82	14.18	15.72	20.85	21.22	21.99	22.35	23.89
8H	4H	14.18	14.58	15.30	15.70	17.24	20.15	20.55	21.27	21.67	23.21
	6H	14.42	14.75	15.56	15.91	17.45	20.76	21.10	21.91	22.26	23.79
	8H	14.43	14.72	15.58	15.87	17.42	20.98	21.27	22.12	22.41	23.96
	12H	14.40	14.65	15.55	15.79	17.38	21.11	21.36	22.26	22.50	24.09
12H	4H	14.31	14.68	15.45	15.81	17.35	20.10	20.46	21.24	21.60	23.14
	6H	14.67	14.96	15.82	16.10	17.66	20.75	21.04	21.89	22.18	23.73
	8H	14.74	14.99	15.89	16.13	17.72	20.96	21.22	22.12	22.36	23.95