

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: P937639

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937639
REPORT IS A COMBINATION OF REPORTS P933575 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

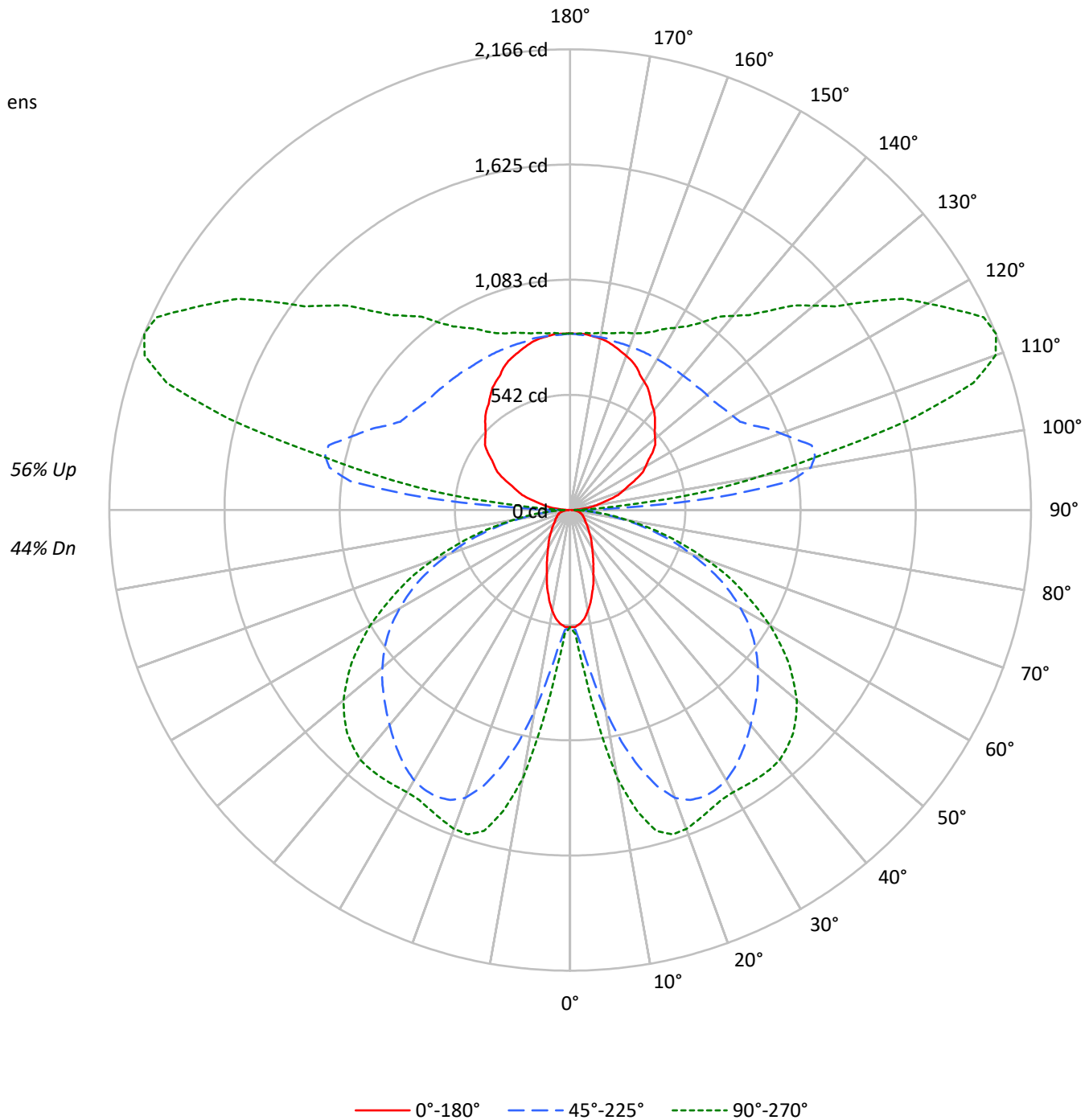
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9638.5 lumens
Efficiency: N/A
Efficacy: 110.8 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: General Diffuse

Input Watts (W): 87
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

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CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-6-3500K

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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3403	3403	3403
5°	3324	3932	4575
10°	3013	5731	7584
15°	2561	7486	9158
20°	2083	8673	9333
25°	1737	9073	9143
30°	1465	9128	9126
35°	1294	8975	9363
40°	1127	8774	9606
45°	1020	8628	9644
50°	935	8496	9484
55°	894	8302	9063
60°	915	7934	8400
65°	950	7376	7488
70°	1010	6428	6326
75°	1114	5237	4936
80°	1208	3627	3327
85°	1055	1920	1702

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9644 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	0.7
10°-20°	315.4	3.3
20°-30°	551.7	5.7
30°-40°	710.2	7.4
40°-50°	793.3	8.2
50°-60°	759.8	7.9
60°-70°	602.1	6.2
70°-80°	354.1	3.7
80°-90°	101.5	1.1
90°-100°	404.5	4.2
100°-110°	1063.4	11.0
110°-120°	1102.7	11.4
120°-130°	884.5	9.2
130°-140°	694.0	7.2
140°-150°	532.7	5.5
150°-160°	383.6	4.0
160°-170°	234.7	2.4
170°-180°	79.3	0.8
0°-30°	938.3	9.7
0°-40°	1648.5	17.1
0°-60°	3201.5	33.2
0°-90°	4259.2	44.2
90°-120°	2570.6	26.7
90°-150°	4681.7	48.6
90°-180°	5379.0	55.8
0°-180°	9638.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	536	575	647	732	759	49
15°	402	741	1249	1514	1562	112
25°	256	840	1488	1553	1555	118
35°	173	803	1401	1481	1539	108
45°	118	640	1238	1419	1482	92
55°	85	407	1051	1221	1254	77
65°	67	216	780	877	890	67
75°	50	133	428	471	472	52
85°	18	41	106	117	118	19
90°	6	16	42	21	21	6
95°	54	209	697	359	244	59
105°	192	290	1176	1785	1665	203
115°	340	413	942	1878	2144	336
125°	473	531	857	1448	1708	420
135°	564	621	830	1168	1325	436
145°	654	696	819	997	1075	410
155°	740	760	819	899	926	340
165°	798	809	819	852	862	225
175°	830	830	825	835	835	79
180°	830	830	830	830	830	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1
2.5°	550.1	550.1	553.7	555.5	559.0	560.7	564.3	567.9	578.4	580.2	583.8
5°	536.0	543.1	566.1	574.9	599.7	633.3	647.4	670.4	718.2	732.4	741.2
7.5°	514.8	530.7	587.3	601.4	663.4	751.9	789.0	838.5	914.6	951.7	981.8
10°	481.1	514.8	615.6	649.2	750.1	884.5	953.5	1022.5	1137.5	1188.8	1208.3
12.5°	444.0	498.9	645.7	691.7	836.7	1033.1	1116.2	1192.3	1323.2	1392.2	1402.8
15°	401.6	475.9	674.0	741.2	928.7	1156.9	1249.0	1342.7	1464.7	1514.2	1526.6
17.5°	364.5	458.2	700.5	771.3	999.5	1268.4	1362.1	1440.0	1539.1	1572.6	1581.5
20°	318.4	429.9	718.2	810.2	1073.8	1349.7	1440.0	1500.1	1567.4	1588.6	1592.1
22.5°	284.8	399.8	728.8	824.3	1123.3	1399.3	1475.3	1523.1	1569.1	1576.2	1578.0
25°	256.5	366.2	727.0	840.3	1165.8	1429.4	1487.7	1523.1	1549.7	1553.2	1553.2
27.5°	229.9	329.0	720.0	843.8	1197.6	1436.4	1482.4	1507.2	1519.6	1526.6	1526.6
30°	207.0	293.7	702.3	836.7	1211.7	1429.4	1466.5	1478.9	1491.3	1501.8	1507.2
32.5°	189.3	260.0	675.7	822.5	1213.5	1411.7	1438.2	1445.2	1462.9	1487.7	1496.6
35°	173.3	226.5	645.7	803.1	1202.9	1383.4	1401.1	1408.1	1443.5	1480.7	1493.0
37.5°	157.5	201.6	606.8	769.5	1187.0	1349.7	1362.1	1374.5	1429.4	1473.5	1487.7
40°	141.5	180.4	560.7	732.4	1162.2	1309.0	1319.6	1339.1	1411.7	1462.9	1477.1
42.5°	129.2	162.7	511.2	693.5	1130.4	1263.1	1278.9	1307.2	1390.4	1445.2	1461.2
45°	118.5	145.1	458.2	640.4	1089.7	1215.3	1238.3	1277.2	1365.6	1418.7	1432.9
47.5°	107.9	132.6	403.4	585.6	1045.4	1167.5	1197.6	1241.8	1332.1	1383.4	1395.7
50°	99.1	120.3	348.5	527.2	997.7	1116.2	1151.7	1197.6	1289.6	1337.3	1353.3
52.5°	92.0	109.7	297.2	468.8	942.9	1063.2	1103.8	1151.7	1238.3	1284.3	1294.9
55°	84.9	100.9	253.0	406.9	886.3	1006.5	1050.8	1096.8	1181.7	1220.6	1227.7
57.5°	81.4	93.7	215.8	348.5	826.1	942.9	992.4	1034.9	1114.4	1144.5	1151.7
60°	76.1	88.5	187.5	298.9	760.7	882.7	925.2	967.6	1034.9	1059.6	1064.9
62.5°	70.8	84.9	166.3	251.2	693.5	811.9	854.4	893.3	949.9	967.6	974.7
65°	67.2	81.4	150.4	215.8	624.5	737.7	780.1	813.7	859.8	877.4	880.9
67.5°	63.6	77.8	138.0	185.8	555.5	663.4	695.2	727.0	762.5	780.1	781.9
70°	58.4	74.3	127.4	164.5	484.7	578.4	605.0	638.6	666.9	675.7	681.1
72.5°	54.8	69.0	120.3	148.6	412.2	497.1	521.8	541.3	566.1	574.9	574.9
75°	49.5	61.9	113.2	132.6	337.9	406.9	428.1	447.6	467.0	470.6	465.2
77.5°	44.2	54.8	97.3	111.5	263.6	322.0	339.6	350.3	366.2	369.7	371.5
80°	37.1	47.8	76.1	86.7	191.0	237.1	249.4	258.2	272.4	272.4	276.0
82.5°	28.3	37.1	54.8	61.9	129.2	162.7	173.3	178.7	187.5	187.5	187.5
85°	17.7	23.0	35.3	40.7	77.8	99.1	106.1	107.9	115.0	116.8	116.8
87.5°	8.8	12.4	23.0	24.7	40.7	51.3	51.3	54.8	54.8	53.1	51.3
90°	5.5	10.0	14.5	15.6	24.5	36.4	42.3	37.6	28.2	21.2	21.2
92.5°	22.3	60.2	98.0	107.5	151.1	209.2	238.3	208.9	150.0	105.8	101.6
95°	53.5	122.7	192.1	209.4	371.9	588.4	696.7	621.7	471.7	359.2	346.4
97.5°	92.5	153.6	214.8	230.0	500.8	862.0	1042.6	995.2	900.4	829.2	805.0
100°	122.6	178.0	233.4	247.3	547.8	948.5	1148.9	1152.4	1159.3	1164.5	1135.6
102.5°	148.2	199.9	251.6	264.6	569.4	975.8	1179.0	1239.4	1360.2	1450.8	1426.0
105°	191.6	235.4	279.2	290.2	585.4	978.9	1175.7	1311.1	1581.8	1784.9	1771.6
107.5°	236.1	277.0	317.9	328.0	588.3	935.3	1108.8	1297.7	1675.4	1958.7	1961.9
110°	266.2	303.0	340.0	349.2	583.9	896.7	1053.1	1264.2	1686.5	2003.2	2017.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	295.7	330.9	366.1	374.8	584.0	863.0	1002.4	1218.5	1650.7	1974.8	1996.1
115°	340.3	372.7	405.1	413.2	589.4	824.2	941.7	1149.9	1566.3	1878.5	1908.1
117.5°	384.3	413.7	443.2	450.5	600.3	800.1	899.9	1087.8	1463.5	1745.3	1778.1
120°	409.9	437.7	465.3	472.3	609.3	791.9	883.2	1054.9	1398.2	1655.7	1687.5
122.5°	435.0	462.9	490.9	497.9	622.1	787.6	870.5	1025.1	1334.2	1566.0	1597.4
125°	473.4	498.9	524.4	530.8	639.4	784.2	856.6	987.9	1250.5	1447.5	1476.4
127.5°	504.6	530.3	556.1	562.5	656.6	782.1	844.9	957.6	1183.1	1352.2	1376.6
130°	521.3	549.1	576.7	583.7	669.3	783.4	840.4	940.7	1141.5	1292.1	1314.6
132.5°	538.5	566.3	593.9	600.9	679.5	784.2	836.5	926.4	1106.0	1240.8	1261.0
135°	564.1	589.4	614.7	621.0	690.6	783.4	829.8	905.0	1055.5	1168.4	1185.8
137.5°	590.3	615.3	640.4	646.6	707.3	788.3	828.7	892.4	1019.6	1115.0	1129.2
140°	612.1	635.1	658.1	663.8	717.5	789.0	824.8	879.8	989.6	1072.0	1085.3
142.5°	628.8	650.1	671.3	676.7	726.1	791.8	824.8	873.1	969.6	1042.0	1053.4
145°	654.4	672.9	691.5	696.2	737.2	791.9	819.2	858.7	937.7	996.9	1005.5
147.5°	680.0	698.0	716.1	720.6	753.5	797.3	819.2	850.3	912.4	959.0	966.2
150°	696.7	713.0	729.4	733.5	762.0	800.1	819.2	845.5	897.9	937.3	943.1
152.5°	714.0	726.4	738.7	741.9	767.7	802.0	819.2	841.7	886.5	920.0	924.4
155°	739.6	748.7	757.8	760.2	779.9	806.1	819.2	837.1	872.7	899.4	902.3
157.5°	758.5	767.5	776.3	778.5	792.1	810.2	819.2	833.1	860.8	881.6	883.7
160°	771.3	778.3	785.2	786.9	797.7	812.1	819.2	831.1	854.9	872.7	873.9
162.5°	784.2	789.3	794.5	795.9	803.6	814.1	819.2	829.2	849.3	864.3	865.4
165°	798.1	802.7	807.5	808.6	812.2	816.9	819.2	826.4	840.8	851.6	852.7
167.5°	810.9	813.1	815.3	815.9	818.8	822.8	824.8	829.5	838.9	845.9	846.5
170°	819.2	821.5	823.7	824.2	824.4	824.7	824.8	829.5	838.9	845.9	845.9
172.5°	823.7	824.2	824.7	824.8	824.8	824.8	824.8	828.5	835.9	841.5	841.0
175°	829.8	829.8	829.8	829.8	828.1	825.9	824.8	827.1	831.8	835.4	835.4
177.5°	829.8	829.8	829.8	829.8	828.5	826.8	825.9	827.8	831.5	834.2	833.7
180°	829.8	829.8	829.8	829.8	829.8	829.8	829.8	829.8	829.8	829.8	829.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	550.1	550.1
2.5°	587.3	583.8
5°	755.3	758.9
7.5°	1017.1	1015.4
10°	1264.8	1280.7
12.5°	1445.2	1448.8
15°	1554.9	1562.0
17.5°	1597.4	1599.1
20°	1599.1	1595.6
22.5°	1579.7	1576.2
25°	1556.7	1554.9
27.5°	1535.5	1537.3
30°	1526.6	1531.9
32.5°	1526.6	1535.5
35°	1530.2	1539.1
37.5°	1528.4	1539.1
40°	1521.3	1533.7
42.5°	1501.8	1510.8
45°	1471.8	1482.4
47.5°	1432.9	1440.0
50°	1383.4	1390.4
52.5°	1321.4	1323.2
55°	1247.2	1254.2
57.5°	1167.5	1169.3
60°	1079.1	1084.4
62.5°	985.4	985.4
65°	886.3	889.8
67.5°	783.6	792.5
70°	679.3	681.1
72.5°	576.7	576.7
75°	470.6	472.3
77.5°	369.7	369.7
80°	274.2	276.0
82.5°	189.3	192.8
85°	118.5	118.5
87.5°	54.8	49.5
90°	21.2	21.2
92.5°	84.7	67.9
95°	295.5	244.5
97.5°	707.9	610.9
100°	1020.0	904.4
102.5°	1327.0	1228.0
105°	1718.4	1665.2
107.5°	1974.8	1987.7
110°	2072.6	2128.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2081.2	2166.4
115°	2026.1	2144.2
117.5°	1909.0	2040.0
120°	1814.8	1942.0
122.5°	1722.9	1848.4
125°	1591.9	1707.5
127.5°	1474.2	1571.6
130°	1404.7	1494.8
132.5°	1341.7	1422.4
135°	1255.4	1324.9
137.5°	1186.1	1243.1
140°	1138.6	1191.8
142.5°	1099.3	1145.1
145°	1040.3	1074.9
147.5°	994.9	1023.7
150°	966.4	989.6
152.5°	942.0	959.6
155°	914.0	925.6
157.5°	891.8	899.9
160°	878.6	883.2
162.5°	869.9	874.3
165°	857.5	862.1
167.5°	848.4	850.4
170°	845.9	845.9
172.5°	839.3	837.6
175°	835.4	835.4
177.5°	831.7	829.8
180°	829.8	829.8



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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	4.70	5.54	5.70	6.56	7.91	17.87	18.71	18.86	19.72	21.07
	3H	5.40	6.16	6.41	7.19	8.55	19.70	20.46	20.71	21.48	22.85
	4H	5.70	6.42	6.72	7.45	8.82	20.34	21.06	21.36	22.09	23.46
	6H	5.95	6.61	6.98	7.64	9.03	20.77	21.43	21.80	22.46	23.85
	8H	6.02	6.65	7.06	7.70	9.08	20.88	21.52	21.92	22.56	23.95
	12H	6.04	6.64	7.08	7.68	9.09	20.95	21.55	21.99	22.59	24.00
4H	2H	11.91	12.62	12.93	13.65	15.03	18.14	18.86	19.17	19.88	21.26
	3H	13.47	14.07	14.51	15.13	16.52	20.18	20.78	21.21	21.83	23.22
	4H	13.57	14.12	14.61	15.16	16.58	20.94	21.49	21.98	22.54	23.95
	6H	13.58	14.05	14.63	15.12	16.53	21.47	21.95	22.53	23.02	24.43
	8H	13.55	14.00	14.61	15.06	16.48	21.63	22.08	22.69	23.14	24.56
	12H	13.51	13.91	14.58	14.99	16.42	21.72	22.13	22.80	23.20	24.63
8H	4H	15.01	15.45	16.06	16.51	17.94	21.00	21.44	22.05	22.51	23.93
	6H	15.25	15.62	16.33	16.72	18.14	21.62	21.99	22.70	23.10	24.52
	8H	15.27	15.59	16.35	16.68	18.12	21.84	22.16	22.93	23.25	24.69
	12H	15.23	15.52	16.32	16.60	18.08	21.98	22.27	23.07	23.35	24.83
12H	4H	15.15	15.55	16.22	16.63	18.06	20.95	21.35	22.03	22.43	23.86
	6H	15.51	15.83	16.59	16.92	18.36	21.61	21.93	22.69	23.02	24.46
	8H	15.57	15.86	16.66	16.94	18.42	21.83	22.12	22.92	23.20	24.68